



Government of Thailand

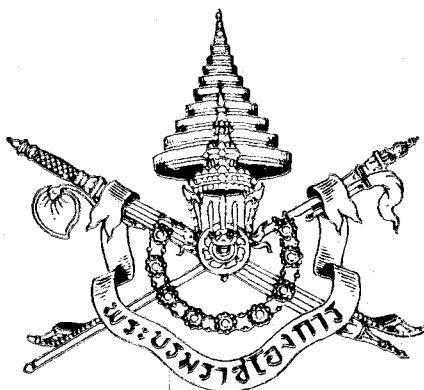
**THE FIFTH NATIONAL ECONOMIC
AND
SOCIAL DEVELOPMENT PLAN
(1982-1986)**

อภินันทนาการ

จาก

สำนักงานคณะกรรมการ
พัฒนาการเศรษฐกิจและสังคมแห่งชาติ

**National Economic and Social Development Board
Office of The Prime Minister
Bangkok, Thailand**



Royal Command Announcement

**Subject : The Fifth National Economic and Social Development Plan
(B.E. 2525-2529)**

(M.R.) Bhumibol Adulyadej

His Majesty King Bhumibol Adulyadej has commanded that:

Whereas the National Economic and Social Development Board has established the principal development objectives, targets, and strategies in the Fifth National Economic and Social Development Plan (B.E. 2525-2529) as the national framework for economic and social development policies which have already been approved by the Cabinet. The main contents of the plan are annexed to this announcement.

Be it, therefore, proclaimed that the Fifth National Economic and Social Development Plan (B.E. 2525-2529) shall become into force as of the 1st, October B.E. 2524 and shall remain effective until the 30th September B.E. 2529.

Given on the 1st, October B.E. 2524 being the 26th year of the present reign.

Countersigned by:
General
(Prem Tinsulanonda)
Prime Minister

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PART I

SUMMARY OF THE PLAN

CHAPTER 1

INTRODUCTION

Thailand first embarked on economic and social development planning in 1961. During the past 20 years the government has drawn up four consecutive National Economic and Social Development Plans to be used as guidelines for the mobilization and allocation of economic, financial and manpower resources, and the public administration system in order to develop and rehabilitate infrastructural facilities needed for the expansion of production and trade, and for the well being for the people. All these have led to a great improvement in our country's economic and social conditions. It is well known and widely accepted among international financial communities that Thailand has achieved an impressive economic growth and diversification in nearly all sectors, together with very high export and employment growth rates when compared with other developing countries. All these factors have pushed Thailand from the group of low income developing country into the group of "middle income" developing country.

During the past 20 years of planned development under the past four Plans (1961-1981), our gross domestic product has expanded 14 folds from 60,000 million baht in 1961 to 817,000 million baht in 1981. Meanwhile, per capita income increased eight times during the same period from 2,200 baht in 1961 to 17,200 baht in 1981, and exports rose 16 folds from 9,900 million baht in 1961 to 163,000 million baht in 1981.

Therefore, the next five years will be a crucial transitional period for the Thai economy. If production structures are adjusted and economic efficiency is increased, together with the restoration of the country's financial position and alleviation of the external trade and payment deficit problem in accordance with the targets laid down in the Fifth National Economic and Social Development Plan, it is expected that Thailand will be transformed into "a semi-industrialized country". It will be the first time in our economic history that the share of production and income from the manufacturing sector will be of the same size as that of the agriculture sector. The Country's gross domestic product will approach the target of 1,860,000 million baht with per capita income doubling from the present level to 35,700 baht in 1986. Meanwhile, the value of goods exports will move towards the target of 445,000 million baht in 1986 or the last year of the Fifth Plan. Furthermore, our production and exports structure will become more balanced as manufacturing exports will play a greater role by representing more than 40 per cent of goods exports in 1986. It is also expected that more economic activities will be dispersed to the provincial and rural areas.

However, the rapid economic growth of the past 20 years has created and accumulated many problems detrimental to the stability of the nation's economic and financial position. It has greatly deteriorated basic economic resources including land, water resources, forest and fishing grounds, which have been exploited or wastefully utilized without any conservation effort. Meanwhile, rapid economic changes have also affected social and environmental conditions and increased urban congestion leading to deterioration in culture, social values, mental well being, and the safety of lives and property as well as drugs problems. Furthermore, it is also widely accepted that past development efforts and economic progress only benefited certain parts of the country. Development benefit was not evenly dispersed as a

large part of the country and population did not benefit from past development efforts and are still living in absolute poverty. It is estimated that there are 10 million people in the rural area who are in this category.

Moreover, world economic changes during the past 7-8 years, particularly the rise in energy price, international financial crisis, high inflation and low economic growth, have greatly affected the Thai economy because our economy is heavily dependent on international trade, and imports of energy, capital and many other factors of production. Meanwhile, we have not adequately adjusted the structure of our economy to cope with changes in world economic conditions. Our problems are compounded by political tensions in neighbouring countries which have created greater economic tension and a larger defence burden.

It is evident that institutional constraints and administrative systems limit the absorptive capacity of the public sector to implement the government policies and programmes because we have not restructured our development administration both at the central level and local level to cope with various kinds of development and economic problems as already described. We need institutional evolution and modernization at both the policy formulation level and operational level, as well as a closer coordination with the private sector for solving economic problems. It should be remembered that most of the problems we are now facing are structural problems which cannot be solved with simple ad-hoc solutions, but require understanding and cooperation from all sides. We will have to accept facts of life by lowering our expectations, and adapt ourselves to new world economic changes. In the beginning, we may face hardships, but it is vital for us to create a national economic discipline in order to allow the socio-economic system to adjust in the right direction to be capable of withstanding future world economic changes.

Furthermore, national development must create national stability and economic justice in order to reduce social inequality, monopolistic power and economic exploitation. This is vital for the maintenance of future political stability and national survival. If we could solve these socio-economic structural problems our country will achieve economic progress and national harmony during the next 10 years.

Therefore, the Fifth National Development Plan is adopting a "new line" of thinking for national development which is different from past National Development Plans. The Fifth Plan should be considered a "policy plan" which gives clear policy directions to be translated into operational plans. It has the following main characteristics: —

Firstly: It stresses "the adjustment of economic structure" rather than "economic growth" to enable the economic and production system of the country to cope with future changes in world economic conditions by stressing "economic efficiency and productivity" rather than solely emphasizing overall economic growth as in the past. This is necessary because we have to restore the country's financial position from the problems of over spending and reduce trade and budget deficits by creating more economic discipline in the country in order to control unnecessary spendings, and conserve energy. It will be necessary therefore, to promote exports in order to earn more foreign exchange.

Secondly: It stresses "equality" in national economic and social development effort" by aiming to disperse income and economic activities to the provincial areas, create social justice, and to redistribute the ownership pattern. At the same time, it also stresses a more balanced development among production sectors, regions and target groups rather than

simply allowing benefits of national development effort to remain in certain areas or in the hands of certain groups of people as in the past.

Thirdly: It stresses "poverty alleviation" for people in backward rural areas to enable them to help themselves and participate more actively in the production process and future national development activities.

Fourthly: It stresses more closer coordination between economic and social development efforts, and national security management in order to achieve maximum national stability.

Fifthly: It stresses the implementation of the Plan into operational plans through closer coordination of the planning, budgeting, and manpower allocation processes. Furthermore, the public development administration system both at the central and local level will be reformed to enable them to implement major policies and development programmes in accordance with the targets by formulating "operational plans" at the Ministry level and for major development sectors. Meanwhile the NESDB will prepare "three-year rolling financial plans" to provide guidelines for the formulation of the government annual budget and mobilization of external loans and assistance within the framework of the Fifth Plan. At the same time, development responsibilities will be further decentralized to provincial areas and local authorities in order to give them greater participation and promote more self-help development activities in rural development.

Finally : It stresses the role and cooperation of the private sector in restructuring agriculture, industry, energy, and in export drive. The government will review various laws and regulations in order to reduce government interference in the market and facilitate the development of private business during the Fifth Plan period. Private business organizations will be encouraged to play a greater role in solving the country's economic problems and in sharing the task of national development.

Furthermore, the government will have to fully support various policies and targets of the Fifth Plan by issuing strict orders to government ministries, departments and state enterprises to implement policy measures and targets outlined in the Fifth Plan. Centers for the monitoring and evaluation of development efforts will be established at the national, ministry, and local levels to direct operational plans towards the targets and speedily correct mistakes. In addition, a public relations system is to be established to mobilize public opinion to understand and accept national development policies as well as to cooperate in solving the country's economic and social problems.

CHAPTER 2

SUMMARY OF KEY ISSUES AND OBJECTIVES OF THE FIFTH NATIONAL ECONOMIC AND SOCIAL DEVELOPMENT PLAN

1. Key Issues

Evaluation of the situation and results of the past 20 years of national development efforts indicate that Thailand's socio-economic system has experienced tremendous changes in terms of production and income structure, consumption pattern, social value, living standard, and the way of life which has become more complex. The majority of the population have received benefits of past economic and social changes, particularly from the rapid expansion of manufacturing and service activities in most urban areas and Bangkok Metropolis. As for rural agricultural activities, production in most areas has changed from subsistence agriculture with a few crops into highly diversified production with more than 10 economic crops in response to trade and export demand. This has come about through the expansion of land frontier and cultivated land practically in all regions of the country. However, there are still many people in the rural areas who have not benefited from past development efforts and have hardly participated in the economic changes. These people are poor farmers who live in marginal agricultural and backward rural areas which have received very little economic and social infrastructural services. This has caused a widening economic and income gap between the rural and urban population, and between different regions.

It is found that the rapid economic growth in agriculture, manufacturing industry and services in the past has contributed to the deterioration of the country's economic and financial stability, and has disturbingly damaged many important natural resources, particularly land, forest and water resources. This has resulted in the deterioration of the rural environment. The rapid expansion of industrial activities, highly concentrated in and around Bangkok and other urban centres, has resulted in increasing urban congestion. The industrial activities have generated urban employment and material progress, but it has also caused social changes in value, discipline and relationships in the society. It has also caused some problems in culture, mental well being, and safety of lives and property. The provision of social services in these urban areas has also become more difficult and more unevenly distributed.

The key economic and social issues, as already described, are likely to become more serious in the future if we do not immediately begin to adjust our socio-economic structures as various problems will accumulate. Therefore, it is necessary to restructure and improve the economic management system and national development administration for both the public and private sector in order to cope with these issues and problems in a consistent manner, particularly the following:—

Firstly: Deterioration of the country's economic and financial position. The country's economic and financial position has deteriorated because we are overspending at the national, governmental, and household levels leading to rising trade and budget deficits which are endangering economic and financial stability. The general public is also overspending with particularly high consumption expenditure caused by higher price level and cost of living,

stagnating income and insufficient saving especially among the urban population as evident from the following:—

National level : Overspending at the national level is evident from the trade and current account deficits during the Fourth Plan period. The deficits have increased from 25,600 million baht and 22,600 million baht in 1977 to 67,300 million baht and 53,000 million baht respectively in 1981, the last year of the Fourth Plan.

Governmental level : Government expenditures are also higher than revenues as the budget's cash deficit averaged 17,500 million baht per year during the Fourth Plan period compared with the planned target of 11,600-15,300 million baht. This was due to the government's policy of rapid economic recovery during the first two years of the Fourth Plan by increasing public investment in various projects causing the public sector's investment expenditures to increase at an average annual rate of 23.9 per cent compared with the planned target of 14.6 per cent. Furthermore, the government's current expenditure have also risen due to larger debt and interest repayments; subsidies for various public utilities in the urban area in order to delay and avoid price adjustments consistent with higher production and energy costs; and a rising government's defence burden due to increasing tension along the border. While the government's expenditures have been rising, the share in GDP of the government's revenue has stagnated at around 14 per cent.

Households level : During the Fourth Plan period the price level has risen by 11.7 per cent per year on average compared with the planned target of 6 per cent causing the people who live on fixed incomes and poor people to overspend as their incomes could not catch up with the higher cost of living. Meanwhile, the majority of the urban population is extravagantly spending in excess of their incomes, and are not saving enough in the present situation.

TABLE 1
ECONOMIC AND FINANCIAL POSITION DURING THE
FOURTH PLAN PERIOD (1977-1981)

Items	1977	1978	1979	1980	1981	Average 5 years
1. Trade balance (billion baht)	- 25.6	- 28.5	- 47.1	- 58.0	- 67.3	- 45.3
2. Exports growth rate (% p.a.)	16.7	16.7	29.9	23.6	23.1	21.9
3. Imports growth rate (% p.a.)	34.5	15.3	38.9	23.5	20.9	26.3
4. Current account (billion baht)	- 22.6 ^{1/}	- 23.5	- 42.4	- 45.1	- 53.0 ^{2/}	- 37.4

Items	1977	1978	1979	1980	1981	Average 5 years
5. Government cash deficit (billion baht, fiscal year)	- 15.1	- 11.9	- 13.0	- 23.3	- 10.4 ^{3/}	
6. Inflation rate (% p.a.)	6.8	9.6	10.7	17.6	14.0	11.7

^{1/} 5.8 per cent of GDP.

^{2/} 6.5 per cent of GDP.

^{3/} preliminary figures for October 1980 - May 1981.

Secondly : Deterioration of the country's natural resource base and socio-economic environment resulting from the rapid economic growth in the past have created two problems:-

(1) **Deterioration of land and water resources, forest areas, and fishing grounds** due to the expansion of cultivated land in all regions without proper natural resources conservation. As a result the forest area has declined to less than 30 per cent of total area, and cultivated land has been used unproductively with low land productivity causing the agricultural growth rate to decline continuously. It is expected that the expansion of cultivated area will no longer be possible during the next five years. Therefore, pressure on cultivated land will increase and it will be necessary to restructure the agricultural production process and provide for the more efficient utilization of major natural resources in order to increase productivity and high returns. Otherwise, the agricultural growth rate during the next 5-10 years will decline further, causing increasing social tensions in the rural areas.

(2) **Rising urban congestion and environmental deterioration in the Bangkok Metropolitan area due to the over concentration of industrial and economic activities.** Economic and financial power of the urban population, particularly those in the Bangkok Metropolitan area, is increasing and becoming more monopolistic without any possibility of decentralization to provincial areas if the structure of the country's economic growth remains unchanged. This will cause a continuous rise in economic inequality and social tension.

Thirdly : Social problems. The rapid expansion of economic activities and material progress in the past has caused social problems as the social structure could not timely adjust to the changing economic environment, giving rise to problems related to culture, social value, mental well being, drugs, and the safety of lives and property. This is evident from the rapidly rising crime rate from 20 cases per 100,000 persons in 1959 to 40 cases per 100,000 persons in 1976. Furthermore, the provision of social services in the past has been inadequate and were unable to develop a more stable social structure. The majority of the population, especially those in the rural area, are still poorly educated and lack vocational training. In addition, health, hygiene and nutritional intake of the rural population are still in poor condition.

Fourthly : Poverty in backward rural areas. Even though Thailand has experienced a very successful overall economic growth of more than 7 per cent per annum during the past 20 years, economic development benefits mainly accrued to the urban population and people in the Central region. Only a fraction of the rural population benefited from development efforts, especially those in irrigated areas, but others have benefited very little or have hardly benefited from past development efforts, and are still helplessly living in absolute poverty. Various studies have indicated that one quarter of the population is still living under absolute poverty in the rural area particularly in the Northeast and Upper North. If this situation is allowed to continue, the social and political stability of the country will be inevitably endangered.

2. Basic Causes of the Problems

The above socio-economic problems are caused by two main factors:—

2.1 Changes in the world economic relations and external factors. The oil price explosion and international monetary crisis since 1973/74 have greatly disturbed the world economy by causing high inflation, economic recession, and high unemployment all over the world. As the Thai economy is highly open and dependent on foreign imports particularly petroleum products, raw materials and capital goods, these changes have affected the country's trade deficit and external financial position during the past 6-7 years. The Thai economy was slow to adjust to the rapid changes in the world economy, and as a result the effect on Thailand's once stable economic position was severe. Now, the country is facing high inflation, weakening external financial position due to deteriorating trade and payments deficits, and rising government budget deficits. Meanwhile, political tension in Indochina has caused Thailand's defence and security management expenditure to rise rapidly.

2.2 The structure of domestic economic expansion. Past policy, emphasizing the overall economic growth together with internal stability as the primary objective, has caused the pattern of investments and development projects of the public and private sectors to be biased towards potentially high growth areas, namely more developed areas. This policy has been very successful as overall economic expansion has been rapid, production has been diversified practically in all sectors including agriculture, services, commerce, and the development of modern industrial base, and the provision of basic economic services have rapidly expanded. However, the pattern of economic growth has been mainly concentrated in Bangkok and the Central region causing widening income disparities between regions, and absolute poverty problems in backward areas. Furthermore, the structure of past economic growth and inefficient use of resources has deteriorated the nation's natural resources and has caused congestion in urban areas due to the high concentration of manufacturing activities which has also led to higher concentration of the ownership pattern and wealth in Thailand.

3. Objectives of the Fifth National Economic and Social Development Plan

To enable national development efforts to solve the above socio-economic problems, it is necessary to formulate "new" national development objectives through structural adjustment programmes in major key sectors to be able to cope with future world economic changes. At the same time, the structural adjustment must permit a more equitable distribution of national development benefits to the rural population, and to coordinate economic development effort with national security management. This "new line" of national development will mainly stress "economic progress with national harmony" with six major national development objectives as follows:—

Firstly : Restoration of the country's economic and financial position. The objective is to restore the country's economic and financial position by determining the maximum levels of trade and budget deficits of 78,400 and 22,000 million baht per year on average respectively during the Fifth Plan period. The government's revenue is to increase to 18 per cent of GDP in 1986, the level which will restore the country's economic and financial position. Thus, the Fifth Plan has stipulated three important fiscal and monetary policies:—

- (1) **Mobilization of more savings** for both the public and private sectors.
- (2) **Build a national economic and financial discipline** in both the public and private sectors to increase savings and lower extravagant and wasteful spendings.
- (3) **Increase economic efficiency and productivity** to expand export capability by improving the economic structure and natural resources utilization efficiency and by reducing the dependence on imported energy and raw materials, as well as to increase income.

In fact, the government has already started to implement various fiscal and monetary measures in this direction in 1981. The government has imposed fiscal discipline on the disbursement of the government budget including cancellation of special payments of the treasury cash balance and the suspension of carry-overs of undisbursed fund without specific commitments. The Budget Bureau together with the Finance Ministry are to coordinate trimester allotments and disbursements more closely in accordance with the government's financial resources. These measures have greatly slowed down and reduced unnecessary spending. Furthermore, tax revenue is being increased by improving corporate income tax and excise tax structures which have increased revenue by 3,000 million baht. A target is being fixed to reduce government spending by two per cent of the total budget, and it is estimated that this should save another 3,000 million baht. All these will reduce the government's cash deficit in 1981. Furthermore, the government has adjusted bus fares, electricity rates and water charges to be compatible with higher production costs and to reduce government subsidies to those state enterprises providing such services.

For the fiscal year 1982, the first year of the Fifth Plan, the government budget is allowed to increase at a rather low rate of only about 15 per cent and the budget deficit is targeted at 21,000 million baht.

As for monetary policies, the government has adjusted interest rates on both deposits and loans consistently with international interest rate structure. This will help to increase savings. Furthermore, the government has devalued the baht to reflect the reality in order to reduce the external trade deficit and strengthen the stability of Thailand's financial position.

In order to achieve the objective of restoring the country's economic and financial position, important policy measures to be implemented during the Fifth Plan period are as follows: to launch a domestic savings campaign by establishing the national savings mobilization committee; to adjust domestic interest rates consistently with the economic situation, to establish of more financial institutions in order to mobilize savings, to improve of the efficiency and stability of financial institutions, to expand the tax base, and to adjust public utility rates in order to assure self reliance. In addition, a credit plan will be established to guide financial institutions' credit allocation into various economic sectors consistently with the Fifth Plan's development strategies.

Secondly : Adjust economic structure and raise economic efficiency. In order to allow the country's economic structure to cope with world economic changes and become more self-reliant, and simultaneously to generate higher income and employment for the majority of the rural population and the dispersion of economic activities to the rural area, the Fifth Plan has formulated objectives to restructure key productive sectors and increase economic

efficiency in many areas, particularly in agriculture and the use of natural resources to yield higher returns than in the past. The restructuring of the agriculture sector will provide greater justice to producers, and industrial restructuring will mainly reduce import dependence, promote exports, and disperse manufacturing activities to provincial areas. Furthermore, the structures of energy production and consumption will be adjusted to reduce oil imports. Simultaneously, the structure of the transportation sector will be adjusted together with a better use and development of science and technology in order to conserve energy and increase the country's economic productivity.

In order to increase agricultural productivity and to improve the more efficient use of natural resources, the Fifth Plan is emphasizing the promotion of domestic production pattern consistent with exports and domestic consumption; the encouragement of the private sector to invest and develop in advanced agricultural areas, including the improvement of a farm productivity through research and extension work to raise yields; and the improvement of the land use, water and forest resources to provide maximum returns. The target for the expansion of the agriculture sector is 4.5 per cent per annum by increasing the yields of major crops by 4.0 per cent per year, carrying out reforestation of 300,000 rai per annum, reducing saline and acid soils by 2.3 million rai and 4.5 million rai, respectively.

The restructuring of the agriculture sector will achieve other major objectives simultaneously. These are to provide greater justice to producers by enabling farmers to sell their products at higher and fairer prices; to speed up the dispersion of land ownership pattern; to increase farmers' capability and bargaining power by forming cooperatives, and by providing more services and knowhow; and to encourage agro-industrial activities in rural areas in order to increase income for landless farmers during off-farm seasons.

The main objectives of the industrial restructuring programme and diversification policies are to increase the efficiency of Thai industries including their role as foreign exchange earners in reducing the trade deficit, and to disperse industrial activities to provincial areas. The overall production target for the industrial sector is set at an increase of at least 7.6 per cent per annum with export industries expanding by 15 per cent annually. Ten categories of manufacturing industries are to be restructured at a rate of two categories per year starting with import substitution industries, namely, car industry and household electrical appliances industry. Industrial activities will be dispersed to provincial areas, particularly to the area along the Eastern Seaboard where the government has charted out a definite policy by designating the area between Sattahip and Rayong for the location of basic industries. The government will also develop and expand the deep sea port at Sattahip immediately, and speed up the formulation of related development plans for this new basic industrial complex taking into account linkages between the new basic industries and natural gas from the Gulf of Thailand which will feed the petrochemical industry and fertilizer industry. As the development of the Eastern Seaboard covers many activities, the cabinet has decided to establish the "Centre for Integrated Plan of Operation" within NESDB to co-ordinate various development activities in the area.

To conform with the main objective of the Fifth Plan of reducing trade deficit and restoring the country's financial position, the structural adjustment programmes in energy and transportation sectors are made concurrently to reduce the dependence on imported energy. An important target is to slow down the rate of increase in energy consumption to at most 4.8 per cent per annum on average during the next 5 years, and to reduce the volume of oil import by 3 per cent per year. Meanwhile, road constructions will be slowed down, the efficiency of rail transportation will be improved, the use of inland water and coastal transportations will be encouraged in order to conserve energy. Simultaneously, domestic air

transportation and telecommunication networks will be expanded.

Thirdly : Development of social structure and distribution of social services. In order to alleviate the effect of economic changes on the social condition, it is necessary to develop the social structure to cope with future economic changes during the Fifth Plan period. The objective of social development and distribution of social services stresses the reduction of the population growth rate simultaneously with the development of the quality of the population and moral development, the creation of a disciplined, cultured and ethical society. In addition, various social services like education, health, and justice will be provided to meet the requirement of the population, and distributed more adequately to the rural area in order to reduce rural-urban disparity in providing social services. To this end, the Fifth Plan has formulated the following social development targets and guidelines:—

(1) Reduce the population growth rate to 1.5 per cent per annum by 1986 and encourage private organizations to fully participate in family planning work.

(2) Develop and expand compulsory education both in terms of quantity and quality in order to provide all children, ages 6 and over, with an opportunity to receive an education. Early secondary education and out-of-school education in remote rural areas will be expanded in terms of quantity and quality. As for upper-secondary and university education which could be well undertaken by the private sector, the government will promote more investment by the private sector. The government will, however, continue to provide technical assistance.

(3) In the field of health services, the local population will be encouraged to solve their own basic health problems through education and training. Key programmes consist of the provision of training for 154,000 village health volunteers and village health communicators in depressed rural areas with an emphasis on preventive and curative measures, and improvement of susceptible points at the village level.

(4) Educate and train the population in both urban and rural areas about the methods of crime prevention and mutual cooperation in the suppression of crime. Improve the quality of the government's crime prevention and suppression services strictly according to the legal process.

(5) Improve the efficiency of the judicial system to be capable of extensively providing justice for the society, and increase the role of the judicial system to participate in the provision of safety of lives and property for the general public.

(6) Improve the structure of the provision of social welfare services in order to assist the general public in helping themselves.

(7) Speed up the restoration of family and school institutions to play a greater role in improving social values, ethics, discipline and responsibility among children and young people.

Fourthly : Poverty alleviation in backward areas. One of the Fifth Plan's major objectives is rural development in order to develop rural areas which have been neglected from past development efforts to be able to help themselves. It is intended to lift the poor rural population out of absolute poverty and allow them to further improve their living standard in the long run.

The rural poverty eradication plan will first emphasize "depressed rural areas" by enabling the people to help themselves and play a greater role in solving their own community's problems as much as possible instead of a one sided help from the government.

To achieve the above rural development objectives, the government has announced "target areas" for rural development during the Fifth Plan period, covering 216 districts and 30 sub-districts in the Northeast, North, and South, and has requested government agencies to allocate budgets and draw up projects to these areas as much as possible.

Rural development programmes are aimed at three preconditions which will lead to the target of an "adequate living standard": to provide people in backward rural areas with an education system and training relevant to their works; and to provide the rural population with good health; and to allow them to receive daily basic need as may be appropriate in different areas. To achieve these three preconditions a number of projects will be implemented including village fishery projects, village water resource projects, the cattle-buffalo bank, district hospital projects, basic health services projects and soil improvement and saline soil development projects in the Northeast.

Fifthly : Coordination of economic development activities with national security management to be as mutually supporting as possible by emphasizing:—

(1) **Coordination of economic development activities with national security management** by increasing defence capability and efficiency of national security management under the "total defence system" sufficiently to encounter both external and internal threats and consistently with the country's economic and financial base. Higher efficiency in the use of the defence budget will be stressed and the government will try to avoid foreign borrowing for defence purposes by using resources from the national budget. In the case of foreign borrowing, the government will try to look only for government-to-government sources with low interest rates and long repayment periods.

(2) **Self-reliance on armanent and other strategic goods** will be stressed by emphasizing domestic production of armanent which are essential for the security of the country, particularly light weapons and equipment, medicinal herbs, small telecommunication equipment, food preservation methods, and reduction of imported energy.

(3) **Coordination of economic development projects with national security development activities.** The Plan will accelerate economic and social development programmes in security sensitive and depressed areas, particularly small development projects consistent with the alleviation of local problems and basic local needs.

(4) **The construction of roads for security purposes** will be carried out in conjunction with road construction for economic reasons. Since the building of certain roads achieve both economic and security objectives simultaneously. A better and closer coordination will be made in order to avoid overlapping of work and conserve the government budget.

Sixthly : Reformation of the national development administration system and deconcentration of the ownership pattern. In order to effectively transform various sectoral plans into operational plans, it is necessary to reform the national development administration and management system at both the national and local levels and to mobilize cooperation from the private sector as follows:—

(1) **Reformation of the public development management system at the "national level"** in order to coordinate national planning, budgeting, and personnel allocating processes more closely through restructuring the national budgeting process from the line to the programme budgeting method, and by improving the planning system at the national, ministerial and departmental level. Each ministry is to be given more authority in the ranking of priorities of its programmes and projects. Furthermore, three year rolling financial plans will be formulated by NESDB to provide guidelines for the preparation of the annual budget. There

will be an improvement in the project preparation and submission process, and finally, a monitoring and evaluation system will be established.

(2) **Reformation of the development administration system at the local level** in order to decentralize authority in the development administration to the local authorities and promote the participation of the local population to govern themselves. At the same time, confusion and complexity concerning the administration of rural development activities will be eradicated by stream lining the rural development process into two bodies, namely, an urban and specific areas development committee and a rural development committee.

— **Urban and specific areas development committee** will be responsible for the coordination of all development activities in urban areas including the Bangkok Metropolitan Area and in specific area development programmes.

— **Rural development committee** is responsible for the coordination of all rural development activities.

(3) **Mobilization of external financial resources.** In order to make the allocation and selection of projects requiring foreign financing consistent with the key national development objectives, a coordinating body will be established with this responsibility. There will be a three year foreign financing plan as an integrated part of the three year rolling financial plan in order to formulate a programming system for foreign financing projects in accordance with the development strategies of the Fifth Plan.

(4) **Mobilization of cooperation from the private sector.** In order to ensure successful implementation of the Fifth Plan, it is necessary to establish a coordination system between the government and the private sector in the administration of development works and solving national economic problems. Specific work plans will be jointly formulated whenever the public and private sectors need to coordinate their operation plans. A permanent organ will be established with the necessary legal backing. Laws and regulations covering the private sector will be amended to give more authority and responsibility to private institutions.

(5) **Distribute the ownership pattern** in order to reduce the concentration of ownership pattern in financial institutions and limit the use of financial resources from financial institutions privileged groups or top managers of these institutions. Moreover, the Plan aims to distribute the ownership pattern in the country's key business, and disperse the ownership of land by implementing proper measures to diversify equity structure of various financial institutions, businesses, and big industries. The government may consider the expansion of the role of mutual fund or may establish a special national trust fund to buy shares of financial institutions, big businesses and industries. The Ministry of Finance will be responsible for this matter together with the Bank of Thailand and other relevant government agencies. The ownership pattern in private businesses will be dispersed through the Stock Exchange of Thailand by developing the capital market and mobilizing savings from the general public into company shares more extensively. Furthermore, the collection of land tax will be improved and levied at a progressive rate in order to reduce the holding of unproductive land and to prevent land speculation. The collection of the land development tax will be introduced in those areas which are to benefit from the government's development efforts. As for the limitation of the size of land holding, the government has already submitted the amended Land Act to the parliament.

4. Summary of the overall development targets

4.1 Targets for the restoration of the country's financial stability. The targets for the maximum trade and current account deficits are fixed at 78,400 million baht per year or 5.9 per cent of GDP and 53,000 million baht per year respectively with the following trade targets:

- Export of goods to increase by 22.3 per cent per annum.
- Import of goods growth rate not be exceed 18.1 per cent per annum.
- Reduction of oil import volume by 3 per cent per annum on average.

Under the above trade and current account targets the government and the private sector should be in a position to mobilize sufficient external financial resources to finance the deficits. Targets for the level of foreign borrowing together with the proper sources have already been formulated. If the current account deficit is higher than the planned target then Thailand is likely to have difficulties in mobilizing additional foreign financial resources leading to an unacceptable decline in the country's foreign exchange reserves to an imprudent level and causing credit worthiness problems, thus endangering the economic and financial stability of the nation.

4.2 Economic production target. Targets for production expansion in major economic sectors have been consistently formulated with foreign trade and the maintenance of external financial stability targets as follows:—

- GDP will grow by 6.6 per cent per annum.
- Agriculture will grow by 4.5 per cent per annum.
- Manufacturing industry will grow by 7.6 per cent per annum.
- Mining output will grow by 16.4 per cent per annum.
- Production of natural gas will reach 525 million cubic feet per day in 1986.

4.3 Reduction of oil import volume by three per cent per year by adjusting the domestic price of oil consistent with the real world situation, implementing energy conservation measures; fixing the target for the use of natural gas of at least 525 million cubic feet per day by 1986; and doubling the use of energy from lignite and hydro sources during the Fifth Plan period from 1,480 megawatts in 1980 to 2,900 megawatts in 1986.

4.4 The government's fiscal targets. In order to control government spending to an appropriate level, it is necessary to formulate the following fiscal targets for the central government during the Fifth Plan period:

- Government revenues to rise by 22.3 per cent per annum. (or 16.7 per cent of GDP on average).
- Government expenditures to rise by 20.2 per cent per annum. (or 18.2 per cent of GDP on average).
- Government budget deficit not to exceed 22,000 million baht per year on average.

4.5 Social development and service targets consistent with economic targets are as follows:—

- (1) Reduction of the population growth rate to 1.5 per cent by 1986.
- (2) Education. Reduce illiteracy rate from 14.5 per cent of the total population in 1981 to 10.5 per cent by 1986.

(3) Health

- Reduction of the morbidity rate and fatality rate.
- Expand government's medical services to all districts, tambols and villages.
- Increase disease prevention coverage to 80 per cent of the target group.

(4) Food and nutrition

- Completely eradicate protein and calorie deficiency of level 3 among babies and pre-school children from the present level of 2.2 per cent.
- Reduce protein and calorie deficiency among children of school age by 50 per cent from the present level of 40-50 per cent.

(5) Safety of lives and property

- Reduce crimes connected with lives, body injury and sex to less than 75 cases per 100,000 persons.
- Reduce crimes connected with damages of property to less than 100 cases per 100,000 persons.
- Reduce the rate of road accidents by three per cent per year.

(6) Sports

- Establish 175 sports fields and gymnasiums at the district level for the general public.

4.6 Targets for the eradication of absolute poverty in the rural area. In order to lift poor people out of absolute poverty and enable them to help themselves, the following targets must be implemented:—

- **Economic target.** Increase the economic growth rate in areas with less than one per cent growth rate per year to at least two per cent per year.
- **Social targets.** Establish a system of basic health services at the district level and provide text books for all students in depressed rural areas within two years. Nutritional services will be provided to 2.2 million children and pregnant women, clean water will be provided to 3 million people and legal services will be rendered to 5,000 poor farmers.

4.7 National security targets. Establish 4,000 volunteer and self defence villages within 5 years at a rate of 800 villages per year.

PART II

RESTORATION OF THE COUNTRY'S

ECONOMIC AND FINANCIAL POSITION

CHAPTER 1

KEY ISSUES AND TARGETS OF THE ECONOMIC AND FINANCIAL RESTORATION PROGRAMME

1. Issues

During the Fourth Plan period, changes in the price of oil and fluctuation of the international financial market have led to high inflation, world economic recession, and high unemployment all over the world. These events have severely affected the Thai economy which has not timely adjusted itself to these changes, resulting in overspending at the national, governmental and household levels. This is indicated by the continuously rising deficit on the trade account during the Fourth Plan period. The country's trade balance recorded an average deficit of 45,300 million baht per year or 7.6 per cent of GDP during the Fourth Plan period compared with the corresponding figures of 13,000 million baht or 5.1 per cent of GDP during the period of the Third Plan. The rising level of the trade deficit is an indication that the country's expenditures are rising faster than its income in both the public and private sectors, and are now approaching the limit of our financial resources. If the government does not effectively implement remedial measures, the trade deficit will continue to rise and inevitably endanger the country's future financial stability.

As for the public sector, the government has been setting its annual budget expenditure at a much higher level than its annual revenues causing the budget deficit to worsen and thus further fueling price inflation which is already high due to rises in the price of oil. All these factors have greatly affected the standard of living of the population especially poor people and those who live on fixed incomes. Furthermore, Government expenditures are also partly to be blamed for the rising level of imports which eventually leads to an increased deficit in the balance of trade.

Apart from fiscal and monetary causes as already described, the problems have also been compounded by our economic structure which has become increasingly dependent on imported raw materials, energy and other factors, and has not timely adjusted itself to external changes. The agricultural growth rate has slowed down from 4 per cent per annum during the Third Plan period to about 3.5 per cent per annum during the Fourth Plan period. Although, the manufacturing sector is still expanding at a high rate of about 9.3 per cent per annum, its production structure has a high import content. Thus, if this trend is allowed to continue then the country's economic and financial position will be seriously endangered.

2. Targets for the restoration of the country's financial position and the adjustment of the overall economic structure.

In order to restore the country's economic and financial position to a more stable level, targets for the restoration of the country's financial position and the adjustment of the economic structure are formulated by reconciling foreign trade targets, which consist of exports and imports targets, with economic restructuring targets and fiscal and monetary targets as follows:—

2.1 Target for the restoration of the country's financial position.

During the Fifth Plan, the country's average annual trade deficit is not to exceed 78,400 million baht or 5.9 per cent of GDP compared with the deficit of 45,300 million baht per year or 7.6 per cent of GDP during the Fourth Plan period. In addition, the current account deficit is not to exceed 53,000 million baht per year on average or 4.1 per cent of GDP compared with the corresponding figures of 37,400 million baht or 6.3 per cent of GDP during the period of the Fourth Plan.

Restoration of the country's financial position in accordance with the targets for trade and current account deficits is essential.

2.2 Foreign trade targets

In order to contain the trade and current account deficits within sustainable levels, exports and imports targets must be set up as follows:—

2.2.1 Exports target. The value of goods and services exports is scheduled to increase by at least 21.9 per cent per annum with the value of goods export reaching 445,000 million baht during 1986, the last year of the Fifth Plan. To achieve these targets, the volume of industrial export must rise at an annual rate of at least 15 per cent and if it is possible, at 25 per cent per annum. Income from tourism is scheduled to reach 50,000 million baht by the end of the Fifth Plan, i.e., an annual rate of increase of 21.5 per cent.

2.2.2 Imports target. The value of goods and services imports is not to increase by more than 7.2 per cent per year at constant prices or by 18.1 per cent per year at current prices, with the volume of goods import limited to 7.3 per cent increase per annum with values rising by 18.1 per cent. These rates are very low when compared with the corresponding growth rates of 10.9 per cent and 26.3 per cent per annum respectively during the Fourth Plan period.

Therefore, in order to attain these targets, the volume of oil imports must decline by at least three per cent per annum on average by speeding up the development of natural gas and other indigenous sources of energy such as lignite and hydropower, and through energy conservation measures together with the restructuring of the production process. The import of other goods, including raw materials and capital goods, are not to rise by more than 7.9 per cent per annum at constant prices or 19.9 per cent per annum at current prices through austerity measures, reducing unnecessary spending by the government and the private sector, and by accelerating industrial restructuring to be more oriented towards local raw materials and labour.

2.3 Targets for the restructuring of the production process.

Targets for the restructuring of the production process of major economic sectors have been formulated consistent with foreign trade and the restoration of external financial position targets as follows:—

2.3.1 Agricultural production target. The agriculture sector is to expand by 4.5 per cent per annum in real terms. This is rather high when compared with the actual expansion of 3.5 per cent per annum during the Fourth Plan period. The expansion must occur mainly through an increase in yield rather than an expansion of cultivated land in order to preserve existing forest and water resources. The high agricultural growth rate will help the country's exports to achieve the targets as well as to increase farmer's incomes in accordance with objectives of the Fifth Plan.

2.3.2 Industrial production target. Industrial production is to expand at an annual rate of 7.6 per cent which is a rather low target when compared with the actual expansion of 9.3 per cent per annum during the Fourth Plan period. Export industries must, however, expand at an annual rate of at least 15 per cent by increasing production efficiency in order to increase international competitiveness. Correspondingly, the structure of the industry must be adjusted to be less dependent on imports by using more labour and local raw materials, and more dispersed to rural area if the trade and current account deficits projected in the Fifth Plan are to be realized. It should be observed that the rather low industrial expansion rate is related directly to the need to mobilize savings and reduce extravagant spending. This policy will inevitably affect the industrial sector, but if the growth of the export industry is greater than the planned target of 15 per cent per annum then the overall industrial growth rate should exceed the target.

2.3.3 Mineral production and natural gas targets. Mineral production (including natural gas) is to grow by 16.4 per cent per annum on average compared with the corresponding figure of 12.6 per cent per annum during the Fourth Plan period. In order to reduce the volume of oil import by three per cent per year, the production of natural gas must reach at least 525 million cubic feet per day by 1986.

If the above targets for the restructuring of the production process are successfully implemented, then gross domestic product will expand by 6.6 per cent per annum on average with the structure of the economy expanding in the directions which will create greater balance and stability in the country's financial position. Furthermore, the production structure between agriculture, manufacturing industry and commerce will be more balanced. The agriculture sector will still be important and the structure of the manufacturing industry will become more export oriented and play a greater role as a foreign exchange earner as well as creating more jobs.

2.4 Expenditure targets

The above economic restructuring targets are not sufficient to reduce the trade and current account deficits down to the target levels. Therefore, it is necessary to formulate expenditure targets for both the public and private sectors as follows:—

2.4.1 Private expenditures. Growth in private consumption in real terms is to be slowed down to 4.8 per cent per year compared with the actual figure for the Fourth Plan period of 6.2 per cent per annum. To achieve this target, it is necessary to mobilize private savings in order to reduce unnecessary spending, and to increase the tax rate from 14 per cent of GDP in 1981 to 18 per cent of GDP in 1986. These measures will slow down the growth in private consumption which will in turn lead to reductions in both imports and external deficits.

Private investment in real terms should increase by 6.9 per cent per annum compared with the corresponding figure of 12.0 per cent per annum during the Fourth Plan period. Emphasis will be placed on the direction of investment which should be consistent with the Plan's objectives of restructuring the production process and restoration of the country's financial position.

2.4.2 Public expenditures. Public consumption is to expand at an annual rate of 7.9 per cent by emphasizing the reduction of unnecessary spending in order to reduce the trade deficit and slow down the rate of inflation. However, a lower rate of increase may not be possible due to the need to increase defence and security expenditures. Public investment in real terms will rise by 4.9 per cent per year which is very low when compared with the corresponding figure of 11.0 per cent per year during the Fourth Plan period. This is necessary in

order to reduce trade and current account deficits down to the target levels. The government will have to carefully review and cancel unnecessary projects and place a greater emphasis on the role of private investment. Furthermore, the government must raise tax collection to 18 per cent of GDP by 1986 from the level of 14 per cent in 1981.

2.4.3 Savings and investment gap. If the investment targets of both the public and private sectors are achieved then the share of investment in GDP will rise from 29.4 per cent during the Fourth Plan to 31.1 per cent during the Fifth Plan period. Similarly, if the consumption targets of the public and private sectors are attained then the share of savings in GDP will rise to 27.0 per cent compared with the corresponding figure of 23.1 per cent during the Fourth Plan. Thus, the savings-investment gap will decline from 6.3 per cent of GDP during the Fourth Plan period to 4.1 per cent of GDP which equals the target for the current account deficit.

Table 2.1
Macro economic targets of the Fifth Plan (1982-1986)

	Fourth Plan (1977-1981)	Fifth Plan target (1982-1986)
1. Trade deficit (current prices)		
1.1 Average value per year (million baht)	45,300	78,400
1.2 Trade deficit/GDP (%)	7.6	5.9
2. Current account deficit (current prices)		
2.1 Average value per year (million baht)	37,400	53,000
2.2 Current account deficit/GDP (%)	6.3	4.1
3. Exports of goods and services		
3.1 Value growth rate (% p.a.)	23.7	21.9
3.2 Volume growth rate (% p.a.)	12.1	10.9
4. Export of goods		
4.1 Value growth rate (% p.a.)	21.9	22.3
4.2 Volume growth rate (% p.a.)	10.5	11.3
4.3 Average value per year (million baht)	110,900	309,400
5. Income from tourism (current prices)		
5.1 Value growth rate (% p.a.)	36.2	21.5
6. Imports of goods and services		
6.1 Value growth rate (% p.a.)	25.4	18.1
6.2 Volume growth rate (% p.a.)	10.1	7.2

	Fourth Plan (1977-1981)	Fifth Plan target (1982-1986)
7. Import of goods		
7.1 Value growth rate (% p.a.)	26.3	18.1
7.2 Volume growth rate (% p.a.)	10.9	7.3
7.3 Average value per year (million baht)	156,200	387,800
8. Economic expansion (% p.a. at constant prices)		
8.1 Agriculture	3.5	4.5
8.2 Manufacturing	9.3	7.6
8.3 Mining (including natural gas)	12.6	16.4
8.4 Natural gas (million cubic feet per day)	200 ¹	525 ²
8.5 GDP	7.3	6.6
9. Expenditure growth (% p.a. at constant prices)		
9.1 Private sector	7.3	5.2
— Consumption	6.2	4.8
— Investment	12.0	6.9
9.2 Public sector	9.3	6.8
— Consumption	8.5	7.9
— Investment	11.0	4.9
10. Savings and investment shares in GDP (%)		
10.1 Savings	23.1	27.0
— Public	1.5	4.3
— Private	21.6	22.7
10.2 Investment	29.4	31.1
— Public	7.9	8.1
— Private	21.5	23.0
Government revenue/GDP (%)	14.0	18.0
	(1981)	(1986)
Population growth rate (% p.a.)	2.1	1.5
	(1981)	(1986)

¹ From October 1981 onwards.

² In 1986.

Note: GDP deflator is assumed to rise at an annual rate of 10.6 per cent during the Fifth Plan period compared with the corresponding figure of 11.2 per cent per annum during the Fourth Plan period.

CHAPTER 2

FISCAL AND MONETARY POLICIES

In order to achieve the targets noted earlier, it is necessary to implement fiscal and monetary policies in three major area:—

Firstly : Mobilize more savings for both the public and private sectors.

Secondly : Create economic discipline at both the national, governmental and household levels by spending only on activities which will lead to economic and social development, and thus benefit the people.

Thirdly: Promote the restructuring of the country's production process in order to lower import dependence and increase export potential. The sector of the economy which need to be adjusted are energy where the dependence on imported oil will have to be lowered by substituting indigenous sources of energy; agriculture, in order to increase exports and farmers incomes; and manufacturing industry, to promote exports.

1. Fiscal measures for the mobilization of savings.

1.1 Mobilization of private savings.

During the period of the Fifth Plan, the target for the share of savings in GDP has been formulated at 27.0 per cent compared with the actual figure of 23.1 per cent during the Fourth Plan period with a reduction in the savings-investment gap from 6.3 per cent to 4.1 per cent of GDP.

In order to alleviate the problem of investment expenditure exceeding savings capability and to reduce the level of foreign borrowing, it is necessary to mobilize more private savings during the Fifth Plan period. To achieve this objective, apart from improving private savings mobilization measures, the stability and efficiency of financial institutions will have to be improved and the possibility of establishing new types of financial institutions need to be explored.

1.1.1 Savings mobilization measures consist of the following:—

(1) **National campaign to increase savings.** Savings mobilization needs to be carried out starting from the household level by promoting a savings habit and frugality as well as making the general population understand the importance of savings towards national development. Thus, initiating a savings campaign is an essential government policy during the Fifth Plan period. A national savings mobilization committee will be established, consisting of representatives from the Ministry of Finance, Ministry of Interior, Ministry of Education, Bank of Thailand, National Economic and Social Development Board, Thai Bankers Association, and Thai Finance and Securities Association. The committee is to come under the jurisdiction of the Office of the Prime Minister's Office and will carry out the following duties:

- Collect existing information on the savings behaviour.
- Conduct surveys and evaluate results to learn about savings and expenditure allocation behaviours of the public, factors affecting savings, the holding of wealth and bank deposits and popular methods of savings, savings' obstacles, and other factors related to savings and debt creation behaviour.
- Implement a public relations campaign to educate the general public to realise the importance of savings and the problem of overspending.
- Submit proposals to the government in order to issue orders to relevant agencies to implement policy measures which will mobilize more savings into the country's organized financial sector.

(2) **Adjust various interest rates in the financial market consistent with economic conditions.** To achieve this objective, it is necessary to amend the Civil and Commercial Code to remove obstacles to the floating interest rate policy in order to allow rates of interest to adjust in accordance with economic conditions. Government agencies responsible for financial institutions' interest rates are to closely monitor the financial situation and timely adjust the interest rate structure.

(3) **Introduce the use of negotiable certificates of deposit with the necessary legal protection for the transferee.** The Finance Ministry and the Bank of Thailand are to develop the necessary legal procedures in order to make certificates of deposit negotiable in the same way as promissory notes in the Civil and Commercial Code. The interest rate on these certificates of deposit will either be fixed at a high level or will be allowed to float freely to enable them to compete with the unorganized financial market. In addition, the interest rate must be able to adjust to changes in foreign interest rates, thereby increasing the liquidity of financial institutions.

(4) **Encourage long term savings through life insurance and life insurance business.** The Ministry of Commerce is to publicize information and educate the public about life insurance and the Ministry of Education is to include the knowledge on life insurance in the educational syllabus from the primary or secondary education level upwards. Furthermore, the government is to promote the growth and stability of life insurance businesses by considering the possibility of expanding branches and increasing personal income tax deductions and by reviewing the Ministry of Commerce's regulations concerning the control of life insurance businesses in order to assure that they are timely and consistent with other aspects of national development.

(5) **Encourage incorporated enterprises to increase savings** by assigning relevant government agencies like the Ministry of Commerce, Board of Investment, Ministry of Industry, and the Bank of Thailand to implement measures which will enable incorporated enterprises to increase their capitalisation in proportion to the size of their activities by imposing an appropriate level of debt-equity ratio and by using other tax incentives.

(6) **Encourage companies to set up provident funds for employees.** In order to create a forced saving and welfare programme for their employees. During the Fifth Plan period, provident funds will have to adopt a number of essentials if they are to be viable. For example both employers and employees will be expected to contribute with appropriate deduction made from employees' wages. Also, the provident funds should be maintained by



an independent business identity to assure the highest and fairest returns for the employees and to benefit from the calculation of corporation and personal income taxes.

(7) **The Insurance Office of the Ministry of Commerce is to encourage property and fire insurance businesses to cover a larger section of the population in order to create greater justice in the society.** For example, if car insurance is more widespread than at present then the insurance premium will become fairer to the insurers and all third party damages will be compensated. The government is to make certain that the management of insurance policies is carried out efficiently and to the benefit of national development.

1.1.2 The establishment of more financial institutions. In order to encourage the mobilization of savings, increase efficiency and distribute resources more equitably, and to develop a wider financial market during the Fifth Plan period, the government will consider the establishment of the following financial institutions:—

(1) **Regional Banks.** Study and consider guidelines for the establishment of regional bank in order to promote the distribution of financial resources to provincial areas, and to provide an opportunity for the mobilization of savings for successful agricultural development in rural areas and successful industrial development in major regional urban centres and in those areas where existing banks cannot satisfy the requirement. Each regional bank must be a public company satisfying the required proportion of share holding by the local population. In addition, the duty and proportion of lending to the local population will be determined.

(2) **Discount Houses:** Discount houses should be established in order to develop an underwrite secondary market and build a base for the development of negotiable certificates such as certificates of deposit, promissory notes, etc. This will increase the financial market's competitiveness with the unorganized money market; make the domestic financial system more adaptable to external changes, and will promote competition and efficiency among financial institutions. The Ministry of Finance and the Bank of Thailand are to formulate measures to provide a close supervision and control of discount houses' operations from the beginning in order to create stability and a firm foundation for the development of the secondary market.

(3) **Foreign banks' local offices for the undertaking of certain specified businesses.** The government will formulate policy measures concerning the establishment of foreign banks' local offices to engage in businesses mainly connected with foreign capital in order to: promote new banking and financial instruments particularly those connected with foreign exchange businesses; create confidence among foreign investors; promote foreign capital inflows at low rates of interest; and indirectly encourage Thai banks to establish overseas branches.

1.1.3 Creation of stability and efficiency of financial institutions. Apart from the implementation of the above policy measures concerning savings mobilization and development of financial institutions, it is necessary to improve the efficiency and stability of existing financial institutions during the Fifth Plan period to encourage more savings and ensure that the use of financial resources is consistent with economic and social development strategies. The following measures will be implemented:

(1) The government will review and improve policies and measures concerning financial institutions under existing laws and, where necessary will amend various laws and regulations in order to conform with the development of these financial institutions so that the measures and regulations will be effective and able to strengthen stability for financial institutions.

(2) The government will promote greater management efficiency for financial institutions' employees, and encourage the management to be more ethical and have greater social responsibility towards the economy and society. The use of financial institutions' resources for the benefit of certain shareholders or the management will be strictly controlled.

(3) The Thai Bankers Association and Thai Finance and Securities Association together with the financial institutions are to jointly establish a financial institutions management training centre with the financial institutions in order to provide knowledge and build management capability among bank employees, and to reduce economic losses from having separate training courses. The Bank of Thailand is to act as the catalyst.

(4) Consider and establish auditing standard for financial institutions and sufficiently provide sufficient information on their operating conditions to the general public.

1.2 Mobilization of public sector's savings

1.2.1 Tax revenue

a. Issues. Taxation issues consist of the following:—

(1) **The fiscal gap between government revenues and expenditures.** During the fiscal year 1981, total government revenue amounted to 81.6 per cent of the government budget with 88 per cent derived from taxes and only 12 per cent from other sources. Total government revenues account for 14 per cent of GDP which in comparison is lower than the average value for the ASEAN countries during the period 1974-1980 (16.6 per cent).

(2) **Ratio between direct and indirect taxes.** The taxes of the country consist of 79.4 per cent from indirect tax sources and 20.6 per cent from direct tax sources. This is the lowest ratio of direct taxes among the ASEAN countries which have an average ratio of direct tax to total tax of 47 per cent. The low direct tax rate is an indication of two characteristics. Firstly, tax avoidance among the general public is still high. Secondly, because the tax collection system is not efficient, it is very dependent on indirect taxes.

(3) **Poor people bear a high rate of tax burden.** The overall tax burden is imposed primarily on poor people, particularly farmers who bear a higher rate of taxation than rich people since the tax structure mainly consists of indirect taxes, and direct taxes are not fully collected. Those who live on salaries and wages are the ones who fully pay direct taxes but self employed people pay very little.

b Targets

The Fifth Plan has formulated a target for tax revenue and other government revenue to increase from 14 per cent of GDP in 1981 to 18 per cent in 1986. This means that it will be necessary to improve the tax base as well as adjust tax rates to appropriate levels, introduce new taxes, improve the management of tax collection, and improve the operational efficiency of state enterprises as follows:—

(1) Improvement of the existing tax structure

To achieve the above objective, the structure of direct and indirect taxes will be adjusted by increasing the ratio of direct tax to total tax from 20.6 per cent in 1981 to 23.1 per cent in 1986 in order to create a more balanced and fairer taxation system. The following measures will be introduced:—

(1.1) Direct Taxes

— Personal income tax

— Lower the uniform rate of tax deductible expenses for certain businesses in order to encourage taxpayers to show more evidence of actual expenditures.

— Expand the tax base by abolishing certain items which are exempted, such as, certain types of interest, prize money, income of private schools especially schools with short courses like beauty schools and dress making schools, etc.

— Corporation income tax

Disallow corporations from paying personal income taxes since the present rate of corporate income tax is quite high. This disallowance will enable the government to collect more corporate taxes.

(1.2) Indirect taxes

— **Business tax.** Increase business tax rate for luxurious goods and services such as nightclubs, massage parlours and restaurants. The goods classification system will be improved by imposing the same rate of taxation on goods of similar characteristics instead of the present system of multiple rates in order to simplify and facilitate the management of tax collection. Furthermore, the business tax exemption for independent occupations like doctors, lawyers and accountants, will be abolished.

— **Excise tax.** Change the present collection system from the specific basis to the ad valorem and specific basis depending on which one is higher. This will increase tax revenue as well as increase tax collection efficiency.

— **Oil and petroleum product taxes.** Improve the oil tax structure into a major source of government revenue, using the principle that oil users must share the burden of maintaining public installations related to the use of oil. Moreover, tax measures to freeze the prices of oil and petroleum products, as being used at present, must be abolished. Tax rate differentials between substitutable types of petroleum products must be reduced in order to avoid widening consumption and production structures which will cause surpluses of certain types of products and shortages of certain types.

(2) Increase tax collection efficiency.

The number of people paying personal income taxes is to increase from 2.32 million in 1981 to 3.85 million in 1986, and the number of firms paying corporate income taxes will increase from 123,140 to 192,270 by using the following measures:

(2.1) Income taxes

— The revenue Department will improve tax collection efficiency in the Bangkok Metropolitan Area which accounts for 70 per cent of total income tax collection by dividing the Bangkok Metropolitan Area into a number of tax districts. Each district is to have a local tax office in order to allow its officials to be close to taxpayers and

learn about activities and taxpayers in the district. Tax offices have already been established in some of the districts. Each office is to continuously gather and collect information on taxpayers in the area to be used for investigation, business registration, determination of the minimum revenue level, and for providing assistance and services to taxpayers. For administrative purposes, each district should not cover too large an area or too many taxpayers.

- Increase tax auditing efficiency, particularly in regard to those the regulations concerning the selection of items to be audited. Also it will be necessary to develop a more comprehensive and careful auditing consistent with manpower availability. Auditing should serve as a principal instrument for increasing the observance of the tax laws.

- Speed up the use of computers in processing of tax collection by the fiscal year 1983.

- Establish a special court to consider tax and commercial cases in order to accelerate the government's tax collection process and facilitate the operation of business.

(2.2) Excise taxes

Complete the development of the Excise Tax Code from the nine existing acts connected with excise taxes in order to create justice and facilitate tax collection. At present, each type of excise tax has its own act, and therefore any improvement or change in the tax rate needs to amend the act causing delays in the administration of tax collection.

(3) Introduction of new taxes and improvement of some existing taxes.

(3.1) Property tax. The government will speed up the collection of direct taxes more extensively in all directions, particularly the improvement of land development tax and rent tax into a form of property tax. After their full implementation the two taxes will be combined into one property tax. The authority to collect this tax belongs to the local governments which have rather low tax collection capabilities. Therefore, in the first stage the central government will collect this tax and will develop a sound tax collection management system for the local governments to assume. The implementation stages of property tax are as follows:—

- Compile a property tax code from various acts concerning property tax and tax administration, and assign one organization to administer it in order to increase coordination and allow consideration of the whole property tax system.

- Expand the tax base to include housing and residential areas.

- Adjust tax rates into a constant rate.

- Establish a central office for the determination of land prices for the use of other agencies such as the Land Department, Land Reform Department, Highways Department, Irrigation Department and Public Works Department. This central office will be an independent agency responsible for the determination of market price and economic price of properties irrespective of the final use of the property.

- Furthermore, the government will consider improvements of certain essential direct taxes such as the inheritance tax which will consist of a tax on inheritance and a capital transfer tax in order to distribute income.

(3.2) Capital gains tax. The collection of the capital gains tax will follow the following guidelines:—

- Separate capital gains tax from income tax by treating capital gains differently from ordinary income. This does not mean that capital gains tax is to be excluded from the Revenue Code, but that there must be a separate section for capital gains.

- Collect capital gains tax at a constant rate, for example at 10 per cent of actual capital gains, in order to avoid the creation of too high a burden for taxpayers, leading to tax evasion.

- There will be no retrospective enforcement of the tax.

The tax will only be imposed on the sales of capital acquired after the date of the promulgation of the law. Sales of properties which are acquired before that date will not be subjected to the tax. The introduction of the tax will increase government revenue, create a fairer taxation system, and prevent property speculation.

(3.3) Value added tax. Prepare for the possibility of collecting a value added tax in order to eradicate the problems of double taxation and complications created from multiple business tax rates. The use of value added tax requires a good accounting system and cooperation from taxpayers. Therefore, it cannot be introduced immediately but needs careful preparation.

1.2.2 Domestic borrowing

The government budget deficit is not to exceed 22,000 million baht per year on average or 1.5 per cent of GDP during the period of the Fifth Plan, and the creation of public debt will be improved and controlled within an appropriate level. In the past, 60 per cent of the financing of the budget deficit consisted of borrowing from the Bank of Thailand or/and the use of Treasury cash balance, but an important policy to be adopted during the Fifth Plan period is to reduce borrowing from the Bank of Thailand to 40 per cent and use the Treasury cash balance for 10 per cent of total borrowing. The other 50 per cent will come from commercial banks, the Government Saving Bank, other financial institutions, and the general public.

1.2.3 Improvement of the operations of state enterprises

In order to reduce the burden on government expenditure in subsidizing state enterprises, thereby increasing government savings, state enterprises will be improved according to the following guidelines:

(1) Improve the supervision system for state enterprises' operations

- Consider the establishment of a management information system for the use of four government agencies connected with state enterprises, namely, the Ministry of Finance, National Economic and Social Development Board, Budget Bureau and the Office of the Auditor General in order to improve and harmonize operations of the four agencies.

- Consider the establishment of a "central" unit to coordinate and supervise the operations of state enterprises. This organ will be empowered to supervise the operations of state enterprises and submit proposals and suggestions to the government on matters related to state enterprises outside the authority of the above-mentioned four agencies.

- The organ will act in an advisory capacity and serve as an instrument of the government to supervising all state enterprises on a continuous and permanent basis. In the past no such unit existed and the government usually established ad-hoc committees for this purpose.

— Such a unit may be a permanent committee at a high level, but not a new government agency as this would be wasteful and equivalent to establishing one more agency to supervise state enterprises.

(2) Improvement of operations of state enterprises.

— Clearly stipulate regulations on the appointment of directors and top management of state enterprises, and clearly formulate targets and time-frames in order to facilitate performance evaluation.

— Each state enterprise is to prepare a master plan to be used as a guideline for its operation.

— The master plan must be consistent with the Five Year National Economic and Social Development Plan.

— The master plan must consist of subplans, for example, a revenue plan, a pricing policy, a production plan, a marketing plan, a personnel plan and an investment plan.

— The purpose of the master plan preparation is to enable state enterprises to operate systematically and within their own constraints, for example, if a state enterprise cannot increase its revenue, then it must have a plan to reduce expenditures in order to be self-financing and independent of government subsidy.

— The government will reduce subsidies from the national budget to state enterprises.

— The government will closely oversee that state enterprises to make certain that they utilize their financial resources wisely like other government agencies in order to be not only self-financing but be able to submit a part of their income to the government.

(3) Price adjustment policy of state enterprises particularly public utilities.

Prices will have to be adjusted according to the principle that revenue must be sufficient to cover interest and debt repayments and that net income (when compared with share holders' equity) will not be lower than interest rate on government bonds. This will permit state enterprises to provide not only more self-financing in the expansion of their activities but provide the government sufficient returns to cover the cost of government borrowing for state enterprises. In those cases where the government has to provide financial assistance, it will be done in the form of government loans at an interest rate which is not lower than the interest rate on government bonds, and the government will control the debt-equity ratio within an appropriate level.

(4) Formulate guidelines for the evaluation of state enterprises' financial and operating conditions.

— After having established the state enterprises' central supervisory unit as already described, the government will give a certain time frame for state enterprises to improve their operations.

— If a state enterprise is not operating successfully with no reasonable excuses after the time frame has elapsed, the government will consider the liquidation, transformation or sales of the state enterprise.

— Similarly, if a public utility, which is essential to the daily life of the general public, cannot improve management efficiency and provide efficient services at a fair

price, then the government will consider the transformation of the state enterprise into a public company. Certain parts of the shares will be sold to the private sector and the government will bring in the private sector to participate in the management, but with the government controlling the operating policy in order to ensure maximum benefit for the general public.

— The government will retain, those state enterprises which are essential to the general public well being.

1.2.4 Local government revenue

Greater emphasis will be placed on the role of local governments according to the objective of decentralizing authority to the local level. This could be done by decentralizing more authority in the collection of taxes to the local governments in order to increase their revenue, on the principle that any tax which is collected on the basis of benefit is the authority of the local governments, in particular, the new property tax, which will combine the local development tax together with the rent tax, will be collected by the local governments. At the initial stage the Ministry of Finance will collect the tax and will gradually transfer the collection work to the local level when the local authorities are sufficiently capable.

1.3 Mobilization of external financial resources.

1.3.1 Problems. In order to mobilize and manage external borrowing more efficiently, it is necessary to eliminate the following obstacles:—

(1) Inappropriate allocation of external financial resources.

(1.1) Foreign borrowing

During the Fourth Plan period, sectoral programmes, like construction projects in energy and transportation sectors, and the construction of infrastructure facilities received the highest amount of resources, accounting for 57.86 per cent of total committed foreign loans. This is because projects in these sectors have definite targets, short operating time spans, and implementation stages are not complicated or involve many people. These factors make it easier for the relevant government agencies to submit foreign financing projects than other sectors. Thus, external borrowing and domestic financial resources in the form of counterpart funds have concentrated in these sectors, leading to intersectoral imbalances. This problem is likely to accelerate during the Fifth Plan period unless appropriate remedial measures are implemented since the size of the government budget will be restricted in order to reduce the budget deficit. Thus, if an appropriate foreign resources allocation system is not developed it will not be possible for other high priority projects to receive adequate counterpart funding. This will make it difficult for other sectors to develop high priority projects which are complicated to prepare and involve many people or many implementing agencies.

(1.2) Foreign Technical Assistance

Foreign financial and technical aid usually involves small activities scattered among many sectors. One fifth of the aid is in the form of foreign experts, making foreign aid projects and programmes lack a clear focal point, in the priority ranking of development issues. Effective coordination between the mobilizations of foreign borrowing and foreign technical assistance to produce the optimum result continue to pose a problem.

(2) Lack of a suitable system to develop projects requiring foreign resources.

The preparation of foreign financed projects in the past lacked clarity and careful screening because they had to be completed in time for the consideration by lenders. On the other hand, the approval of foreign technical assistance projects continues to be carried out on a project by project basis and lacks an overall target and direction for maximum benefit.

(3) Limited absorptive capacity in the development of new projects.

The limited capability to guide and develop projects, in both the National Economic and Social Development Board and relevant ministries, has caused a shortage in the initiation of projects along the national development strategies. This limitation is caused by the lack of basic studies and analysis into the issues upon which appropriate development projects could be conceived and prepared. Moreover, many government agencies also lack foreign borrowing experience and have problems in the preparation of projects. This problem is particularly severe among agencies responsible for the provision of services for poor people in the rural area. The lack of project proposal capability has also caused the relevant agency to wait for the evaluation report from the lender before submitting the project preparation to the National Economic and Social Development Board. This gives little time for careful analysis of the project as the date for loan agreement is approaching. This rather tight schedule for project preparation is an important reason for the negligence and inaccuracies in the pre-appraisal of many projects.

(4) Lack of an appropriate system for the evaluation of foreign financed projects. The evaluation of foreign financed projects is not as related to the national budget preparation process as it should be. There has never been a benefit comparison between foreign financed projects and projects which use the government budget despite the fact that foreign financed projects also create burden for the government budget in the same way as other projects since the government will eventually have to repay interest and capital.

(5) Economic loss. The lack of an appropriate system for the development and pre-appraisal of foreign financed projects has produced economic losses since projects which have been approved are not ready to be implemented. Thus, the projects are not able to disburse the money on schedule causing losses in requiring the government to pay commitment fees. These commitment fees are increasing, for example, from US.\$4.0 million in the fiscal year 1977 to US.\$19.03 million in the fiscal year 1981.

Furthermore, some foreign financed projects which are ready to be implemented also face a problem as the counterpart fund has not been sufficiently allocated as required by the operational plans since the government budget is limited and has to be allocated to many projects. State enterprises' foreign financed projects also face the same problem of insufficient counterpart fund from the central government. In the case that counterpart funds come from state enterprises' revenues, they also face the problem of insufficient revenue either as a result of operating inefficiency or the control of their prices by the government. Furthermore, the lack of monitoring and evaluation of projects, using foreign financial resources both in the form of foreign loans and technical assistance, has also caused economic losses in the cases where projects have not operated in accordance with the targets or are delayed.

(6) Inappropriateness of certain types of foreign loans. The policy to freeze public utility prices of state enterprises making them incompatible with production costs, and the inefficiency of these enterprises have led to borrowing from the international financial market for local costs by paying interest and other charges at market rates. These sources of finance are not appropriate when compared to those offered by international financial institutions and also cause an unnecessary increase in the level of public debt burden. This part of foreign borrowing to finance local costs could have been avoided if serious attempts had been taken to seek money from domestic sources. Furthermore, foreign borrowing for defence purposes according to the Defence Borrowing Act has greatly contributed to the increase in the country's debt burden as the conditions of the loans are fairly unfavourable both in terms of high interest rate and short debt repayment period. This has caused a much larger debt repayment burden in a short period and has increased pressure on debt service capability.

(7) Control on the spending of foreign loans.

Foreign financed projects, which use foreign loans and aids, have not been sufficiently evaluated. As a result, it has not been possible to increase the efficiency in spending foreign financial resources.

1.3.2 Targets

During the Fifth Plan period, the mobilization of foreign loans and aids will amount to about 150,000 million baht which consists of 135,360 million baht in foreign loans. At least 79 per cent of total foreign loans will come from international financial institutions and friendly countries compared with the corresponding figure of 53 per cent for the Fourth Plan period. Foreign economic and technical assistance will amount to 14,640 million baht.

The above foreign borrowing plan has taken into consideration the ability to repay interest and foreign debt, and the public sector's debt service ratio when compared with export earnings is targeted at 7.3 per cent at the end of fiscal year 1986 compared with the corresponding ratio of 8.5 per cent at the end of fiscal year 1981.

1.3.3 Strategies and measures consist of the following:—

(1) Mobilization of external financial resources. The Fifth Plan is intended to improve the management of external resources mobilization both in terms of speed in preparation of projects, appropriateness of the projects, and in terms of the reduction of economic losses. The following measures will be used:—

— Coordinate the use of foreign loans and foreign technical assistance. The latter should be used to undertake pre-investment studies which will point out key development issues in each sector and lead to the development of foreign financed projects in a later period, as well as studies on the feasibility of foreign financed projects.

— Use foreign technical assistance to reinforce economic management and institutional building, particularly those connected with development planning work, management of foreign financing projects, and management of other related development work.

— Establish a screening system for foreign financed projects in order to make them clear and consistent with the development strategies of the Fifth Plan.

- Screen and develop foreign financed projects which are complete, ready for implementation, and capable of disbursing money quickly in order to reduce economic losses in the forms of commitment fees and opportunity cost.

- Take extra precaution in state enterprises' borrowing from external financial markets for conversion into the local currency as this may cause the money supply to rise excessively, thereby leading to inflation.

- Improve foreign borrowing for the development of the armed forces by only allowing government-to-government sources or borrowing from a foreign government's financial institutions and only where necessary. This is because the foreign loan for the development of the armed forces during the Fourth Plan carried unfavorable terms, high interest rates and short repayment periods causing the country's debt burden to rise sharply and unnecessarily.

- Establish a monitoring and evaluation system for foreign financed projects in order to measure operating results and consistency with the targets and objectives of the Fifth Plan.

(2) Management of external financial resources.

A part from improvements in external financial mobilization policies, the Fifth Plan still aims to improve the management of external financial policies as follows:—

- Improve the foreign borrowing procedure to obtain more favourable conditions both in terms of interest rates and repayment period in order to save foreign exchange in the form of interest and other charges.

- Formulate a borrowing procedure in order to avoid too high an accumulation of debt burden in any one period.

- Monitor the loan disbursement of foreign financed projects to ensure speedy disbursement and progress consistent with disbursement targets.

1.3.4 Operational plan. In order to mobilize external financial resources according to the objectives and guidelines of the Fifth Plan, it is necessary to implement the following measures:—

- (1) Improve the capability of government organizations responsible for the management of foreign loans and aids.

- (2) Establish a screening system for foreign financed projects beginning with the study of issues and formulation of guidelines for the development of the project until the submission for consideration by the National Economic and Social Development Board. A close coordination between the National Economic and Social Development Board, Fiscal Policy Office of the Ministry of Finance, Bank of Thailand, Budget Bureau, Ministry of Foreign Affairs and the Department of Technical and Economic Cooperation is required from the initial stage in the form of foreign financed projects sub-committee onwards until the placing of the screened projects into the three-year rolling financial plan for submission to the external debt policy committee for consideration on the appropriate sources of financing.

- (3) Prepare a three year rolling external financial resources mobilization plan with a definite list of projects within the next three years together with project and sectoral guidelines, issues for future studies and ideas on projects which should be developed with the help of foreign technical assistance. The plan must be revised every year in order to

provide the external debt policy committee with a basis for considering the amount of foreign loans and external debt burden so as to be consistent with the country's economic condition.

(4) Coordinate the allocation of external financial resources with the annual budget in order to provide consistency and synchronization, and to attain the objectives and strategies of the Fifth Plan.

(5) Establish a system to monitor the progress of foreign financed projects in order to indicate problems and make suggestions from the initial stage of project preparation and incorporating into the three-year rolling plan onwards until the submission and approval of the project by the National Economic and Social Development Board.

(6) Evaluate foreign financed projects to determine out their effect on attaining the national objectives of the Development Plan and meeting major sectoral issues in order to utilize external financial resources more efficiently.

2. Policy directions and measures on the control and allocation of aggregate spending.

Apart from the above saving mobilization measures, it is still necessary to implement fiscal and monetary measures to allocate, control, and ensure an efficient use of the country's financial resources. To achieve this, from 1981 onwards, the government has already introduced a number of fiscal measures which will create economic discipline and reduce unnecessary spending. Other additional fiscal and monetary measures which need to be implemented during the Fifth Plan period are:—

2.1 Fiscal measures

(1) Prepare a restrictive government budget with a target for the budget deficit of at most 22,000 million baht per year during the Fifth Plan period.

(2) Complete the transformation of the line budgeting process into the programme oriented budgeting method within the Fifth Plan period. The redirection process will begin from the fiscal year 1982 onwards with the establishment of a ministerial ceiling for each ministry which will in turn allocate the budget according to the following guidelines and methods:

- Programmes or projects which respond to the policies and guidelines of the Fifth Plan will be given a high priority for budget allocation in order to attain the Fifth Plan's objectives. Programmes and projects which do not relate to the main policies or guidelines will be reduced.

- Consider the economic and social impact of each on-going project and determine whether it is necessary to continue the project. If not, then the project should be discontinued in order to redeploy financial and manpower resources for other projects which have a high priority ranking according to the guidelines of the Fifth Plan.

- If the budget allocation for a high priority project is less than the requirement, then the budget allocation should be reduced without affecting the targets of the project. In the case that such a reduction is not possible, the operation of the project should be postponed to the following year.

- In the formulation of programmes or projects requiring government budget, consideration should be taken of the targeted rural areas as issued by the Prime Minister's Office, including specific development areas, security development areas, and regional urban growth centres as identified in the Fifth Plan.

- In determining the budget allocation for a project, consideration should be taken of the project's objectives instead of allocating according to the incremental method.

- Absorptive capacity of each ministry should be taken into consideration for budget allocation. If the priority of the project is high but the absorptive capacity is low, then improvement in the management should be considered simultaneously with the project.

- Consider and determine capital unit costs, for example, the cost of producing a doctor, capital investment in irrigation per rai or household, for those who benefit from projects in order to provide guidelines for the allocation of budget, particularly for high priority projects. Furthermore, consider projects which request for budget allocation from the point of view of the number of persons benefiting from the project.

- Clearly determine the stages of operation of programmes or projects particularly high priority projects in order to efficiently monitor and speed up the work according to the targets.

2.2 Monetary measures

- (1) Control the expansion of the money supply and domestic credit at rates appropriate and consistent with the targets of economic stabilization.

- (2) Review the Bank of Thailand's rediscounting facilities so that they will be consistent with the industrial and business promotion policy of the Fifth Plan, such as the promotion of small scale industries and energy conservation industry.

- (3) Determine credit guidelines for financial institutions' credit extension to various economic sectors efficiently and consistently with the Fifth Plan as follows:—

- Agricultural credit policy is intended to increase commercial banks' facilities to farmers and to allow the participation of other financial institutions in agricultural development.

- Formulate a clear policy and related guidelines for commercial banks and other financial institutions to extend credit to important businesses and industries such as medium scale, export industry using local raw materials and the investment in energy conservation.

- Improve the financial system to allow an efficient control of financial institutions' credit extension, for example, in the control of unnecessary overdrafts. Moreover, financial institutions' credit extension for consumer goods and commodity speculation will be closely controlled and monitored.

3. Size of the Development Plan, financing sources and sectoral allocation.

From the above fiscal and monetary policy guidelines, the target for the Plan size is 799,340 million baht compared with the corresponding figure for the Fourth Plan of 252,450 million baht. This represents a three-fold increase and amounts to 11.6 per cent of GDP. The financing of the Plan consists of 649,340 million baht from domestic sources or 81.2 per cent of the total Plan size, and 150,000 million baht from external sources of 18.8 per cent of the total Plan size as shown in Table 2.4.

Table 2.4

**Sources of Financing of the Fifth National Economic and Social Development Plan
Compared with the Fourth Plan**

(million of baht)

	Fourth Plan				Fifth Plan	
	planned value	share %	actual value	share %	planned value	share %
Development expenditure	252,450	100.0	310,228	100.0	799,340	100.0
Sources of fund						
a. Domestic sources						
Tax revenue and others	106,860	42.3	111,831	36.0	437,820	54.8
— from existing tax structure	98,560	—	—	—	390,570	48.9
— from improved tax structure	8,300	—	—	—	47,250	5.9
Domestic borrowing	78,270	31.1	80,730	26.0	85,660	10.6
— Government Savings Bank	12,200	4.9	13,000	4.2	15,630	1.9
— Commercial banks and financial institutions	28,030	11.1	30,200	9.7	35,760	4.5
— Bank of Thailand	38,040	15.1	37,530	12.1	34,270	4.2
Treasury cash balance	15,270	6.0	18,467	6.0	9,520	1.2
State enterprises' revenue	19,750	7.8	28,480	9.2	65,700	8.2
Local governments' income	—	—	25,390	8.2	50,640	6.4
Total domestic sources	220,150	87.2	264,898	85.4	649,340	81.2
b. External sources						
Foreign borrowing	29,800	11.8	35,420	11.4	135,360	16.9
Foreign aid	2,500	1.0	9,910	3.2	14,640	1.8
Total external sources	32,300	12.8	45,330	14.6	150,000	18.8

3.1 Reasons for increasing Plan size

To attain the objectives of the Plan as already described, the government must provide for a significant increase in development expenditures for the following activities:—

(1) During the Fifth Plan period, the government intends to restructure the rural economy in order to distribute income to provincial areas. Therefore the government needs to implement many development projects in the rural areas, for example, the rural job creation programme, the village fishery programme, and water resources development all of which will benefit the farmers. Further, the government will improve the agricultural marketing system.

(2) The Fifth Plan is intended to reform the social structure particularly in education, health and nutrition, simultaneously with the dispersion of services to the rural and remote areas, for example construction of district hospitals, health centres, tambol secondary schools etc.

(3) State enterprises' investments, which are essential for the improvement of income and dispersion of services to the rural area, still require large amounts of development funding from external sources, for example, gas separation plants, Khao Laem and Srinagarind hydro electricity dams and the Bang Pakong gas electricity generating plant. However, the Plan has taken into account benefits from investment, absorptive capacity and future debt service burdens.

3.2 Guidelines for the allocation of development expenditures.

Since the government needs to implement fiscal policies to solve economic problems for both the short and long term, and create social justice by reducing economic inequality among the population, it is necessary for the government to allocate development expenditures so that they are consistent with the objectives of the Plan by using the following guidelines:

(1) Place high priority on that investment which generates production and promote production for exports in both agriculture and industry including public investment in the marketing system in order to raise farmers' incomes.

(2) Place a heavy emphasis on the improvement of infrastructural programmes in rural development in order to speed up the distribution of income and economic activities to the rural population including the use of appropriate technology techniques in rural development.

(3) Emphasize the distribution of social services by promoting health, nutritional and welfare services as well as by reforming the education system to be consistent with economic requirements and population growth.

(4) Emphasize the restoration and management of the nation's major resources and environment, particularly land, forestry, and water resources to prevent further deterioration which could endanger the environment and hence the national development effort.

(5) Improve the efficiency of the administration of the public sector and increase civil service salaries to a level nearer to those of other professions. It is essential to adjust the civil service salaries with changes in the cost of living by providing for an adjustment by 1985 of 8,400 million baht.

PART III

STRUCTURAL ADJUSTMENT PROGRAMME

AND IMPROVEMENT OF ECONOMIC

EFFICIENCY

CHAPTER 1

INTRODUCTION

The Fifth Plan is directed toward restructuring the Thai economy in order to cope with changes in the world economic environment and the restoration of the external financial position. It is also directed toward decentralizing and dispersing economic activities to rural areas in order to increase rural income and generate more employment opportunities. To achieve these objectives, the Plan has formulated structural adjustment targets in agriculture and industry in order to accelerate national exports. Conversely, imports of many goods will be slowed down by promoting domestic production to substitute imports and adoption of an energy conservation programme. Efficiency in the utilization of energy in the transportation sector will be stressed and the country's transportation system will be restructured in order to conserve energy. As for the restructuring of the production process and efficiency improvement of the utilization of the country's major critical resources especially land, water resources, forest, mineral deposits and energy, the government will promote the use and modification of modern science and appropriate technology to raise national output and productivity and simultaneously conserve the country's major factors of production.

The structural adjustment and economic efficiency improvement programme will emphasize the following strategies:—

Firstly : Emphasize "improvement in production efficiency" to attain higher returns per unit of factor of production, particularly improvement in land productivity, energy consumption and the use of capital and other scarce factors. To achieve this, there will be operational plans to conserve and rehabilitate the deteriorated conditions of the country's land, forest and water resources.

Secondly : Emphasize "improvement in the marketing efficiency" and a fairer pricing policy in order to raise productivity and competitive position in the world market.

Thirdly : Emphasize "the decentralization of economic activities to provincial areas and backward rural areas" in order to reduce interregional economic and development disparities.

Fourthly : Emphasize "improvement of the management system, and review those policy measures which form obstacles as well as the proper role of public and private organs" in order to accelerate a coherent restructuring programme in production processes and the marketing system. To attain this, the private sector will be encouraged to cooperate and play a greater role in the economic restructuring programme. This includes the role of rural organizations.

Fifthly : Emphasize "the use of appropriate science and technology" in the restructuring of production processes and trade, and the improvement of economic efficiency, particularly in agriculture, the manufacturing industry, and energy utilization.

From the above economic structural adjustment and efficiency improvement programme, principal features of the restructuring production and infrastructural services could be summarized as follows:

1. Restructuring of the Production Process

1.1 Agriculture. The agricultural production process will be restructured to achieve an annual rate of expansion of at least 4.5 per cent with structural changes from "extensive agriculture" to "intensive agriculture," especially for rice, rubber, maize, mung bean, soybean, and cotton. Correspondingly, land productivity will be increased by further improving 16 million rai of existing irrigated land and seven million rai of acid sulphate and saline soils. The extension of agricultural credit will be expanded and more seeds and fertilizers will be provided to farmers to increase land productivity. The government will ensure that farmers receive fair prices for their outputs by minimizing government interference in the marketing system and by improving farmers' bargaining power particularly those in backward rural areas. To attain this goal, the government will encourage the merging of all rural farmer organizations into agricultural cooperatives. These cooperatives will be encouraged to jointly market their products, as well as to improve the coordination of work between other institutions of the same level, and linkages between institutions of different levels.

1.2 Industrial Restructure. Restructure the manufacturing industry towards export industries by speeding up the transformation of primary processing industries into finished product export industries. The government will develop a basic industrial complex on the Eastern Seaboard, particularly, those industries connected with natural gas, sponge iron industry, chemical fertilizer, soda ash, potash and petrochemicals. Furthermore, the government will encourage the dispersion of manufacturing activities to outlying regions in order to increase rural employment and the use of local raw material. The government will also promote conservation of energy in manufacturing production process by encouraging local and foreign private investment. Price control measures will be avoided unless the structure of industry is monopolistic. Finally tax rates, the structure of investment promotion privileges, and industrial export promotion measures will be improved.

1.3 Mineral Resources. The expansion of mineral production (including natural gas) will be at least 16.4 per cent per annum with production diversification in industrial minerals, fuel minerals and exportable minerals. The government will speed up mineral exploration in order to find out the reserves of vital minerals and determine appropriate mining areas. Furthermore, the government will eradicate the problems of illegal mining activities which have greatly deteriorated natural resources and the environment. Efficiency of the mineral production process and mining technique will be improved to attain a minimum standard and achieve high returns.

2. Restructuring of Foreign Trade

During the next five years, the country's trade deficit is not to exceed 78,400 million baht per year by accelerating exports of goods and services to achieve an average annual growth target of 21.9 per cent and by improving the exports structure of agricultural, manufacturing, mineral and marine products to attain the ratios of 41, 36, 8 and 4 per cent of total goods export respectively. To achieve these targets, the government will be required to review and revise various policy measures including those taxes which are obstructing exports. In addition, the government will encourage export diversification and the penetration of new markets. Export credit guaranteed institutions will be established. On the import side, the government will hold down the import growth rate below 18 per cent per annum by adjusting the energy consumption and conservation structure, and by restructuring the manufacturing industry to be less dependent on import content. As for tourism, the government will promote tourism to achieve an annual growth rate in the number of 8.4 per cent and tourism in-

come of 50,000 million baht in 1986.

3. Restructuring Energy Production and Consumption Pattern

The dependence on imported energy is to be lowered from 75 per cent of total energy consumption in 1981 to 46 per cent in 1986. To achieve this target, the production and substitution of indigenous sources of energy like natural gas, hydro power, lignite and unconventional energy, will be accelerated. Energy consumption will be slowed down to an annual growth rate of 4.8 per cent during the next five years and the volume of oil imports will be reduced by three per cent per annum on average by improving the efficiency in energy utilization in the transportation and industrial sectors. In addition, the energy pricing policy will be timely, realistically, and consistently adjusted, with no further government energy subsidy.

4. Transportation Restructuring Programme

The objective is to reduce the consumption of oil in order to improve the trade deficit. To achieve this, road construction will be reduced except for rural highways, but emphasis will be placed on road maintenance. Furthermore, road construction and maintenance will be adjusted to become self reliant by taxing road users through an oil tax for transportation purposes, highway tolls and vehicle taxes during the next 5 years. Rail service and water transportation will be expanded in order to reduce the use of roads to conserve energy. The government will promote international ocean transportation and merchant marine activities to increase the use of Thai shipping by 15 per cent per annum. This will increase the proportion of exports and imports using Thai shipping from five per cent in 1981 to 10 per cent in 1986. To attain this target, the size of the Thai fleet must rise by 358,000 dwt. simultaneously with the expansion of deep sea ports at Sattahip, Songkhla and Phuket.

The structural adjustment programme and improvement of economic efficiency in the major economic sectors as already described indicates that future economic development in Thailand will be more balanced: import dependence will decline, exports will rise, employment will be higher and economic activities will be distributed to outlying regions in accordance with the Fifth Plan's targets.

CHAPTER 2

AGRICULTURE RESTRUCTURING, IMPROVEMENTS IN EFFICIENCY OF NATURAL RESOURCES' UTILIZATION AND THE ENVIRONMENTAL CONSERVATION PROGRAMME

1. Summary of Past Trends in Agricultural Production.

Past national development efforts have been concentrated in the agricultural sector since agriculture is the highest single source of income, accounting for 25 per cent of total income. In addition, employment in agriculture totals 15.6 million persons or approximately 70 per cent of total employment, and agricultural exports contribute 60 per cent of the total foreign exchange earnings of the country.

During the past 20 years of agricultural development, agricultural output has expanded at a rather high rate of five per cent per annum compared with the world's agricultural growth rate of only 2.5-2.8 per cent per annum. Thus, Thailand has become the only country in Asia to have continuously enjoyed the position of a "net food exporter" during the past 20 years.

However, the country's past agricultural growth has a number of important characteristics and relies on certain factors which have stimulated Thai farmers as follows:—

Firstly : Thai agriculture has diversified into many new cash crops in order to satisfy domestic and world demands. Production has been diversified from only 2-3 major crops to the present situation where there are more than 10 major cash crops each one with value added worth more than one billion baht. Furthermore, livestock, fishery and forestry development has been carried out, and the value added in these sectors has now reached one quarter of the total agricultural income.

Secondly : Output expansion has mainly relied on the expansion of cultivated area. Cultivated area has been expanding at an annual rate of approximately four per cent to reach 147 million rai at present. This consists of 84 million rai of paddy fields and 63 million rai of cash crop and perennial crop area. It is evident that the land frontier is now nearly ended as suitable land for agriculture is running out. This means that "the period of forest encroachment for new cultivated land" is coming to an end.

Thirdly : The expansion of the government's infrastructural services during the period of the four previous plans has partly contributed to the rise in agricultural output, particularly the development of water resources and expansion of the irrigation system to cover 16 million rai out of 84 million rai of paddy field, the expansion of road networks between production and marketing locations to reach 60,000 km in agricultural areas all over the country. In addition, the government's agricultural extension work is partly responsible for the expansion and diversification of agricultural output.

However, it is worth noting that, recently Thai agriculture has begun to face a number of problems such as the limitation of land and, water and forest resources which have not been used efficiently during the past and without any conservation effort. Thus, the condi-

tions of these resources have continuously deteriorated, leading to many environmental problems and causing the agricultural growth rate to slow down to about 3.5 per cent per annum during the Fourth Plan period. And if there are no effective measures to improve the efficiency in the utilization of land and water resources, agricultural expansion is likely to decline further to below 3.5 per cent per annum during the Fifth Plan period. In particular, the Northeast and the upper North where land and water resources are limited and at present are in a very depressed condition, agricultural growth will be very low, endangering the maintenance of the country's economic stability. Thus, it will be necessary to improve the production process and efficiency in the utilization of land and water and forest resources in order to maintain the strategic importance of the agriculture sector during the next 5-10 years.

To summarize, past agricultural development has resulted in an expansion of agricultural output at a satisfactorily high rate not matched by many countries. Furthermore, agricultural expansion was an important factor which increased income and the standard of living of the majority of the rural population causing the level of absolute poverty to decline from 50 per cent of the total population in 1961 to about 25 per cent at present. But, income disparity between agriculture and other economic sectors and between regions still exist, and is a key issue in the structural adjustment of the agriculture sector.

2. Summary of Issues

The above agricultural situation is sufficient to indicate structural problems and the future for Thai agriculture which needs to be "structurally adjusted in order to increase output and farmers' income at a high rate simultaneously with efficiency improvement in the utilization of land, water, forest and fishery resources to attain a higher economic returns than in the past." The following problems and issues will be addressed:—

2.1 Problems of a continuing decline in the agricultural growth rate due to low productivity and deterioration of natural resources. Issues are summarized as follows:—

(1) Low land productivity in the past was due to unsuitable land use both in terms of an unsuitable cropping pattern for the soil condition and in terms of inappropriate production techniques. These have produced low productivity of land and has caused soil deterioration. Furthermore, land utilization efficiency is still low as cultivated land has not been fully utilized and double cropping is still not widespread because the nation's irrigation system only covers 10 per cent of the total agricultural area. Among the 16 million rai of irrigated area, only 4-5 million rai receive water for the whole year. Thus, farmers still have to rely mainly on rain as shown by the fact that the productivity of major crops has only increased by 0.5 per cent per annum. The increase in agricultural outputs has mainly come about through the "expansion of cultivated areas" which in the past have increased by four per cent per annum. Moreover, the uses of high yield seeds, fertilizers, and insecticides are still very low. Thailand only uses fertilizers at a rate of 1.9 kg per rai compared with the corresponding figure for other Asian countries of over 15kg/rai. In addition, the use of high yield paddy only accounts for 12 per cent of the total paddy cultivation area. The capacity to produce the high yield seeds is only equivalent to four per cent of the annual demand of seeds even though the private sector has played a larger role in the seed multiplication programme. As for crop substitutions, in the past these have mainly been determined by demand and world prices which have had an important influence on agricultural production and land use pattern. Land use problems of different regions have varying characteristics as follows:

— **Central** : The Central region has a rather complete irrigation system with a high rate of agricultural growth of seven per cent per year, but has land tenure and acid sulphate and saline soil problems especially along the coastal areas. The Central region's land productivity is lower than the North's. However, paddy cultivation in the Central region still has a high potential for raising its yield.

— **North** : The Northern region has the highest yield because soil fertility is good, crop diversification and rotation are extensive, but the land holding size is the smallest in the country with problems of forest destruction by shifting cultivation. However, the potential to diversity into rotation crops, perennial crops, temperate climate crops, tea, coffee and milk production is still high.

— **Northeast** : The Northeast has the highest amount of agricultural land in the country, accounting for 41 per cent of total agricultural area, but has the lowest share of agricultural production of only 26 per cent of total agricultural production. It is the region which has the lowest rate of agricultural growth, poor soil fertility and only 1.6 million rai of irrigated area among the 60 million rai of total cultivated land. The Northeast is the region with the highest dependence on rainfed agriculture, but it still has the potential to diversify its production into upland crops such as cassava, sugar cane, oil crops, cotton, and livestock.

— **South** : The Southern region only has only two major agricultural crops: rubber and paddy, indicating an undiversified agricultural base. Potential for growing rotation crops within rubber plantations and among other perennial crops is still good, including livestock rearing on land rehabilitated from mining activities.

However, cultivated land problems of land cultivation have caused farmers in 500,000 households to become landless agricultural workers who have uncertain and low incomes as agricultural employment fluctuates according to the seasons, resulting in seasonal unemployment for these workers during the dry season. Therefore, the development and dispersion of agro industries to the rural area is an important development potential for the future.

(2) **Forest destruction and inefficient utilization of land** is evident from the forestry output expansion of only 0.7 per year during the Fourth Plan period. Moreover, the trend indicates a further decline due to forest destruction and encroachment which have taken place over a long period of time causing fertile forest area to decline to only 82 million rai. The rest consists of deteriorated forest area which is not being fully utilized in agriculture. Targets for forest conservation have been realized because of technical and administrative problems, and the lack of cooperation from farmers and the population.

(3) **Water resources utilization for irrigation and fishery.** The 16 million rai of irrigated area has not been fully utilized for agricultural purposes, particularly for double cropping, due to an incomplete water distribution system and lack of maintenance, and the inefficient use of water in irrigated areas. Furthermore, the management of water resources is still scattered among many government agencies and is an important issue in water resources development. As for fishery, production is on a declining trend due to excessive marine fishing which has caused a deterioration in marine resources, and due to the extension of the 200 mile economic zones of neighbouring countries creating a restriction in Thailand's fishing ground. Moreover, inland fishery and coastal marine fishery are also face problems caused by the shallowness of the water level, water pollution in the Chao Phya and Tachine rivers, and the destruction of marine animals' habitat. Therefore, if there are no effective policies to develop and improve the utilization of water resources, then the future trend for fishery production and crops production is likely to decline further.

(4) **High production cost when compared with farmers' selling prices.** In particular, prices of fertilizers and insecticides are high when compared with farm output prices. For example, the price of chemical fertilizer is twice that of paddy even though the government is playing a role in the provision of fertilizers for farmers by subsidising transport costs, but such assistance met approximately 20 per cent of total demand in 1980. Furthermore, farmers are still faced with credit problems as evident from the fact that credit extended by financial institutions to farmers amounts to only 160 baht per rai, forcing farmers to rely on loans from unorganized money markets with high and unfair interest rates. The use of such loan has inevitably increased the costs of production.

2.2 Marketing system and agricultural prices are unfair to farmers since prices of most agricultural products are determined by wholesale markets in Bangkok and middlemen who have better information on market movements and price fluctuations than farmers thus resulting in relatively weak bargaining power for farmers. Trade through the cooperative system or farmers organizations has so far been developed very little, and therefore the majority of the farmers still trade through local middlemen. Thus, the government has been forced to increase its intervention in the marketing and agricultural pricing system at the export, wholesale, retail and farm levels. However, these measures have not progress very far while the private sector's marketing system has further expanded. Meanwhile, investment in modern, agro-business and industries has expanded very rapidly and partly increased linkages between production and marketing efficiency.

It is clear that roles of the private and public sectors have an important influences on the market and are partly responsible for agricultural price movements, but coordination between the two sectors is still lacking. Furthermore, their actions are often contradictory, and many market intervention measures of the government have caused many problems and need to be seriously reviewed. For example, the policy to slow down agricultural price increases in order to protect domestic consumer conflicts with the policy to push up farm gate prices. Other marketing and agricultural pricing policies which need to be reviewed and improved during the Fifth Plan period are as follows:—

- Government's intervention role and measures in the export market which have increased exporters cost resulting in lower farm gate prices.

- The number of central markets is limited and not sufficiently diversified, and the agricultural auctioning system is not sufficiently developed. Both quality selection and standardization need to be improved.

- Local farm trade lacks basic infrastructural services, for example warehouses, godowns, silos, and transportation services causing farmers to rely on middlemen at various levels. Furthermore, middlemen have a monopoly over marketing and agricultural pricing information resulting in a lower bargaining power for farmers.

- Government intervention at local levels, such as the price support programme, is still not extensive, has limited financial resources, and is not operating as efficiently as it should. The development of the private sector's contract trading system has progressed very far in creating trade contracts between farmers and factories, resulting in greater injustice in some cases.

- The formulation of farmers groups for trading purposes is still limited.

All these constitute the existing agricultural marketing pricing problems which place farmers in a rather disadvantageous position and prevent them from reaping the full benefits of agricultural prices. In general, agricultural prices which farmers receive are lower or

roughly the same as production costs. For example, in 1979, farmers received an average price of 2,500 baht per ton for first grade paddy (five per cent rice), but the production cost as estimated by the Department of Agricultural Economics was 2,865 baht per ton. The cost comprised of 66.4 per cent labour cost, 10.3 per cent raw material cost, and 23.3 per cent for other costs. Thus farmers made a loss of 365 baht per ton.

2.3 Farmers' institutions

It is clear that the formation of farmers' groups in the form of cooperative institutions in the fields of production, marketing and agricultural price support is still very limited. At present, only 2.2 million households or 39 per cent of agricultural households are participating in such institutions in the form of cooperatives. Moreover, these farmers' institutions are encountering many problems, namely competition between cooperatives to increase membership resulting in a reduction of their bargaining power, uncoordinated efforts between various government agencies responsible for agricultural cooperatives both in the establishment of cooperatives, provision of technical training, and auditing. A "master plan" to coordinate the work of agricultural cooperatives and other such institutions is lacking. Most of the members have low education attainment, lack knowledge and understanding in the management and operation of these institutions, lack responsibility in self-management and are very much under the influence of the government which still imposes many laws and regulations which do not create opportunities for farmers to fully participate in such institution.

3. Targets

The Fifth Plan calls for restructuring the production process, improving efficiency in the utilization of land, water and forestry resources, and fishing grounds, and improving the agricultural marketing and pricing system in order to create greater justice for farmers by emphasizing the target to "raise agricultural productivity" as an essential principle. This target is based on the fact that the future expansion of cultivated area will be very limited. The Plan also intends to increase the standard of living and income of farmers, and thus simultaneously reduce the problems of rural poverty. Therefore, the Fifth Plan has set the following targets for agriculture restructuring and productivity improvement:—

3.1 Agricultural growth targets. The overall growth target is 4.5 per cent per annum with the following subtargets:—

- Crops to expand by 4.7 per cent per year.
- Livestock to expand by 4.2 per cent per year.
- Fishery to expand by 5.4 per cent per year.
- Forestry to expand by 0.3 per cent per year.

3.2 "Productivity" targets. The overall productivity of economic crops will expand by four per cent per year with a special emphasis on productivity increase of paddy as it is the most important crop.

(1) Targets for the yields of major crops during the Fifth Plan period are:

	Yield	kg/rai	Average growth rate
	1981	1986	1982-1986
			%
1. Paddy	290	336	3.0
— First crop	272	312	2.8
— Second crop	550	600	1.7
2. Rubber	66	130	9.7
3. Maize	309	420	6.3
4. Sugar cane (ton/rai)	6.8	7.7	2.5
5. Tobacco	152	172	2.5
6. Mungbean	100	130	5.4
7. Sorghum	192	241	4.7
8. Castor bean	140	150	1.4
9. Soybean	150	229	8.9
10. Groundnut	186	208	2.4
11. Cotton	191	250	5.6

(2) Targets for paddy productivity by regions are:

	1981	1986
First crop (kg/rai)		
Northeast	224	293
South	285	290
Centre	302	320
North	343	355
	1981	1986
Second crop (kg/rai)		
Northeast	500	500
South	480	480
Centre	564	625
North	490	490

3.3 Natural resources management and efficiency improvement targets. In order to provide consistency with production and productivity improvement targets, the following targets have been formulated.

(1) **Land development target.** Improve 2.3 million rai of acid sulphate soil in the Central region and 4.8 million rai of saline soil in the Northeast.

(2) **Improvement of irrigated land.** The 16 million rai of irrigated land will be further improved in order to create a complete irrigation system and increase land productivity. The improvement is divided into the following categories:—

Level 1: Area with a complete irrigation system which has already been under land consolidation schemes, approximately 1 per cent.

Level 2: Irrigated area with ditches and dikes which has not been consolidated, approximately 52 per cent.

Level 3: Area with irrigation canals but no ditches and dikes which has not been consolidated, approximately 28 per cent.

Level 4: Irrigated area with no canals due to geographical obstacles, approximately 19 per cent.

To this end, the existing dams or reservoirs like Lampao dam and Lamdom noi dam will be fully utilized in accordance with the following operational targets:—

- Improve non-irrigated land to irrigated land of level 4 or level 3 in the North-east, Upper Ping river, basin, Pasak river basin and the South at an annual rate of 1 million rai. This will raise paddy productivity from 250-300 kg/rai to 400-450 kg/rai.

- Improve irrigated land from level 3 to level 2 in the Central region by 500,000 rai per year. This will raise paddy productivity from 390 kg/rai to 480 kg/rai.

- Improve irrigated land in water abundant areas from level 2 to level 1 in the North by 50,000 rai per year. This will raise paddy productivity from 480 kg/rai to 600 kg/rai.

- Expand area under irrigation through water pumping projects using electricity for the Northeast and other regions in areas where there is sufficient water by 200,000 rai per year. This will raise paddy productivity from 300 kg/rai to 500 kg/rai.

- Expand area under irrigation through small water resources projects by 50,000 rai per year. This will raise paddy productivity from 250 kg/rai to 400 kg/rai.

(3) Reforestation targets. Reforestation is to be implemented at an annual rate of 300,000 rai. In addition, 40 million rai of watershed areas and 12.8 million rai of national park land will be conserved. The forestry village scheme will be increased to cover all 100 villages.

3.4 Agricultural credit expansion target. The provision of credit is to rise by 11.7 per cent per year or at an annual rate of 5,700 million baht by increasing the amount of agricultural credit extended to farmers or farmers' cooperatives through BAAC and commercial banks from 41,000 million baht in 1982 to 64,700 million baht in 1986 as follows:

	1982 (estimate)	1986	Average growth rate per year 1982-1986 (%)
a. Government's banks			
1) Number of agricultural households (million)	2.2	2.6	5.1
2) Amount of loans (million baht)	15,800	26,500	13.8
3) Amount of loans per household (baht)	7,200	9,900	8.3

	1982 (estimate)	1986	Average growth rate per year 1982-1986 (%)
b. Commercial banks			
1) Direct loans to farmers (million baht)	14,600	21,800	10.5
2) Loans for agri-businesses (million baht)	11,200	16,400	10.0
Sub Total	25,800	38,200	10.3
Total Loans Extended	41,600	64,700	11.7

3.5 Institutional reform targets. All farmers' groupings and agricultural cooperatives will be merged into one farmer institution.

4. Policy directions and measures.

The Fifth Plan has laid down the following policy directions and measures which are consistent with the productivity improvement targets:—

4.1 Policy directions

(1) **Restructure the agricultural production process** by shifting from "extensive agriculture" to "intensive agriculture" i.e., placing a heavier emphasis on yield improvement. This could be achieved by increasing the efficiency in the utilization of land in both irrigated areas and non-irrigated areas, water resources, and forestry resources to give the maximum economic returns, including the conservation of natural resources to reduce their deterioration. Furthermore, the government will promote the cropping pattern appropriate with soil quality and will provide necessary inputs like fertilizer, high yield seeds, and credit simultaneously with appropriate production technology in order to allow farmers to increase agricultural yield and rural labour utilization.

(2) **Enable farmers to sell their products at fair prices.** The government is to promote investment in basic marketing facilities in order to increase farmers' bargaining power. Moreover, the government will reduce to the minimum those market intervention measures which create a burden for the farmers. And will give direct assistance to farmers in depressed rural areas.

(3) **Speed up the distribution of land ownership** through land reform and the provision of land titles for agricultural purposes in order to create employment security for farmers and eradicate social inequality. This will also benefit to agricultural production.

(4) **Provide monetary incentives to encourage government's financial institutions and commercial banks** to extensively expand credit to farmers and agricultural institutions, including reduction in quality disparity of agricultural credit facilities given by various institutions.

(5) Promote the merger of various rural organization. Cooperatives, farmers' groupings and various professional groupings are to merge into one organization in order to give mutual assistance in improving production, marketing, improvement of rural income, knowledge enhancement, training, and business management. This will increase business management efficiency, and will form a leading core for agricultural development in the rural areas.

4.2 Development measures

4.2.1 Improvement of natural resources utilization efficiency.

a. Water resource is a basic factor for raising productivity, particularly for paddy. Thus, during the Fifth Plan period, the following water resource development measures will be implemented:—

(1) Speed up the improvement of existing irrigated areas which total 16 million rai to provide maximum benefit, especially for dry season cultivation.

(2) Speed up the development of neglected river basins to provide more benefit, especially Wang, Yom, Pasak, Sakaekrang, Bangpakong, Rayong, and Chantaburi river basins.

(3) Accelerate the development and dispersion of small scale water rescoures to non-irrigated areas to be used as additional water reserves in order to reduce the impact, of climatic uncertainties.

(4) Explore and develop a scheme to draw water from the Mekhong river into Chao Phya river plain and the Northeast for long term irrigation purposes.

(5) Collect water charges in irrigated areas in order to create water utilization efficiency and introduce cost recovery principle for further expansion in these areas.

(6) Improve the organizational structure and management of various government organizations concerned with water resource management both at the policy and operational levels in order to systematically coordinate water resource development works in each river basin, and to decentralize authority for small projects to the local level. This will enable the provinces to participate in project management from the project initiation stage onwards to construction and maintenance stages.

b. Land and forest. It is necessary to implement the following development measures.

(1) Speed up land use surveys for the formulation of a land use policy in order to prohibit the expansion of urban areas into those agricultural areas where the government has already invested in irrigation systems or areas which have high soil fertility capable of producing high output, and to promote the appropriate cropping pattern.

(2) Restrict private land holding for agricultural purposes to 50 rai. Establish a land bank which will buy excess land and allocate or sell to landless farmers.

(3) Speed up land reform by emphasizing the eradication of land tenure problems in the Central and Lower Northern regions which have severe problems of landless and tenant farmers.

(4) Survey forest land to separate out deteriorated forest areas suitable for agriculture in order to allocate this land for farmers in the form of forestry villages. Those deteriorated forest areas which are not suitable for agriculture will be reforested.

(5) Revise and strictly enforce the Farm Rent Control Act in order to create justice for tenants and landlords.

(6) Prohibit self help land settlements in opening up new scheme, but improve the existing land settlements according to plans, and transfer the responsibility to the provinces.

(7) Improve land with low soil fertility and productivity, namely acid sulphate soil in the Central region, saline soil in the Northeast, soil erosion in the North, and deteriorated mining areas in the South.

(8) Amend the Ministry of Agriculture's laws and regulations to enable the government to preserve high fertility agricultural land or areas where the government has invested significant financial resources as future agricultural land.

(9) Implement reforestation of 300,000 rai per year by emphasizing private sector participation. The government will supervise the work according to correct technological methods in deteriorated forest areas, including the improvement and reforestation of swamps which have potential for coastal marine fishing.

(10) Promote the growing of fast growing trees to be used as fire wood and prevention of land erosion in the Northeast and North.

(11) Improve and decentralize the government's forestry manpower allocation structure in order to achieve better control and prevention of forest destruction.

c. Research and extension. Productivity increases through water resources development and efficiency improvement of the utilization of land, water and forest, has a limited scope. It is essential to simultaneously develop in other supplementary factors of production, particularly the research and extension. Thus, it is necessary to speed up research and extension using modern technology with the following measures:—

(1) Speed up the formulation of the national agricultural research plan to be used in the coordination of research projects of various institutions both domestic and foreign, the priority ranking of research works, and in the management of research work to provide consistency with major issues which are consistent in each locality. Emphasis should be placed on yield improvement in rainfed areas by concentrating on major crops; for example, paddy capable of with-standing drought and saline soil; high yield cash crops; and perennial crops (by speeding up the production of high quality shoots or branches). This should be consistent with the variety of crops which will promote further agricultural diversification.

(2) Improve the agricultural extension system by constantly dispersing officials to small farms in order to train farmers about seed-water-fertilizer technology and pesticides, build up a group of modern farmers, and construct small experimental plots.

(3) Promote crop rotation systems like castor beans, beans, cotton, sesame and wheat in irrigated areas in the Central and Northern regions in order to increase land utilization efficiency. And promote the cultivation of those which use minimum water, such as beans, oil plants, cotton and perennial crops simultaneously with livestock rearing and inland fishery in the Northeast.

(4) Speed up the substitution of low yield paddy seeds, rubber trees, and fruit trees by high quality varieties.

(5) Promote inland fishery in natural water resources or reservoirs.

(6) Provide fertilizers for farmers more extensively and in a larger quantity to reach a target of 30 per cent of total demand for each year. Emphasis will be placed on rice farmers in rainfed areas and the quality of fertilizer will be strictly controlled.

(7) Encourage farmers to produce organic fertilizers.

(8) Produce and sell 5,000 tons of paddy seeds, 4,000 tons of various bean seeds per year, and encourage 4,000 farmers to produce high-yield paddy seeds.

d. Credit. In order to encourage the majority of farmers to use new technologies, including fertilizer and seeds; improve production; and make more efficient use of land and water resources, it is necessary to provide credit extension with the following supportive measures:—

(1) Bank of Thailand is to formulate policies and directions for the allocation of agricultural credit by coordinating with appropriate agencies and institutions.

(2) Allocate the budget to increase BAAC's capital to 4,000 million baht in accordance with the BAAC Act to enable BAAC to respond to farmers' credit requirements, particularly in depressed rural areas.

(3) Encourage farmers in the same locality who grow the same kind of crops to jointly request credit, to jointly market their products, and to acquire inputs, appliances and other factors of production.

4.2.2 Agricultural diversification

a. Economic crops. Promote the diversification of economic crops to minimize farmers' risks from fluctuating prices, and increase returns from land utilization by taking into consideration the potential of each area and market trend. Major economic crops consist of rice, rubber, cassava, maize, fruits, sugar-cane, vegetables, tobacco, groundnuts, and soybeans. The following measures will be implemented:—

(1) Expand double cropping of paddy in irrigated areas by promoting the use of fertilizers and the deep water broadcasting method. The government will improve the production of "rainfed" paddy by exchanging seeds and promoting the use of the new variety of short lived paddy, and by training farmers to use an appropriate amount of fertilizer.

(2) Apart from the promotion of major economic crops with good market and price potential, the government will promote the cultivation of other crops, such as temperate climate fruits, tea, coffee, wheat in the North; coffee, cocoa, coconut and palm

oil in the South; kenaf, perennial crops, lac and silkworm in the Northeast, etc. To achieve this, it is necessary to speed up the production and distribution of high quality seeds to farmers, and teach them to control pests, as well as to formulate consistent programmes and operational plans for both production and marketing.

(3) Formulate and demarcate agricultural economic zones for crops and livestock by taking into consideration soil quality, market trends, farmer capability and farmer income. The Agricultural Economic Zones Act will be amended to achieve this goal.

(4) Introduce the technique of high level tapping and the use of latex stimulants for rubber plantations in the South. Speed up the rubber replanting scheme.

(5) Speed up the substitution of cassava by rubber in the Eastern region in order to reduce cassava production down to the demand level.

b. **Livestock.** Livestock has good potential for further development and expansion during the Fifth Plan period. The following measures will be implemented.

(1) Promote the rearing of dairy cattle in the South, North, Northeast, and East in order to increase fresh milk production, and encourage the establishment of dairy farmers' organizations.

(2) Formulate a disease prevention programme to lower the mortality rate by: conducting surveys and improving animal disease analytical techniques; producing vaccines for foot and mouth disease; and establishing mobile veterinary units in order to provide services and training to farmers. Top priority will be placed on those areas which are highly dependent on animal power. Furthermore, the government will promote artificial insemination using sperms from true breed cattle to produce dairy cattle, oxen for work, and beef cattle.

(3) Promote private investment in the export of meat by considering rescinding the Ministry of Interior's order concerning the establishment of animal rest houses and slaughter houses in order to allow the private sector to invest in slaughter houses without having to transfer the ownership to local governments.

(4) Encourage small farmers, who are still using the low cost method of animal rearing which also produces slow growth and low survival rate, to learn modern techniques of animal rearing by emphasizing the quantity and quality of animal feeds simultaneously with animal disease prevention.

c. **Fishery**

(1) Negotiate joint deep sea fishing ventures with various countries which have abundant marine resources within their 200 mile economic zones, and ensure that Thailand's commercial fishing fleet is strictly abiding by the rules and regulations of joint venture operations.

(2) Expand coastal marine fishery by determining clearly defined promoted areas including the reforestation of coastal swamps in order to increase marine production.

(3) Speed up the production of fingerlings and release them to multiply in natural water reservoirs and various irrigation projects in order to provide a source of protein, especially in the depressed rural areas. Train and educate farmers to raise fish in paddy fields.

(4) Produce and provide expensive fingerlings and shrimp, and train farmers in the rearing techniques in order to encourage them to adopt this as a profession.

4.2.3 Marketing and pricing policy

a. Overall measures

(1) Formulate annual operational plans for specified commodities with production and marketing targets and clear directions and measures. The formulation must be carried out with cooperation from all relevant agencies in both the public and private sectors. An agricultural pricing and marketing policy committee will be established to determine the operational plans, eradicate obstacles and problems as well as to monitor and evaluate results.

(2) Review government intervention policies at the export and domestic marketing levels, particularly for rice. Taxes, charges, rules and other commercial regulations which are creating burdens on the export trade must be minimized because these burdens depress farm prices, and do not promote production for export purposes.

b. Wholesale and retail trade.

(1) Study and formulate plans to extensively provide basic marketing infrastructural facilities, such as rural roads, godowns, warehouses, silos, and communication systems, for remote areas.

(2) Improve and extend agricultural marketing and pricing information especially for remote areas in order to allow farmers to have equal understanding and opportunity as middlemen and promote a fair competition among them.

(3) Promote and expand the existing local central marketing system. The government is to provide complete basic infrastructural facilities and formulate the scope and operational procedure of these central markets especially the auction system and quality control, as well as to provide incentives to the private sector to establish central markets.

(4) Promote the private sector's role in providing weight and measure services with the government's supervision and guarantee.

c. Farm level trade

(1) Encourage farmers to form cooperatives. The government will also coordinate the work of cooperatives of the same level and of those of different levels for commercial purposes and to increase bargaining power. Moreover, quality selection and standardization will be encouraged in order to increase farm gate prices.

(2) The government's price support programme should be implemented selectively according to the government's financial resources. There must be a clear operational plan and the government should use market mechanisms, in particular, the promotion

of the private sector's purchasing power. However, in depressed rural areas, the government will intervene in all possible ways.

(3) Study the contract trading system in order to formulate guidelines and measures to create fair contracts between cooperatives and factories.

(4) Encourage both government financial institutions and commercial banks to provide extensive credit to farmers in order to improve production efficiency.

4.2.4 Improvement of farmers' institutions.

(1) Merge various farmers' institutions into agricultural cooperatives responsible for assisting members in all business matters.

(2) Improve the administrative mechanism of various government departments connected with farmers' institutions to encourage the merging of farmers' groups into agricultural cooperatives.

4.2.5 Agricultural credit

(1) Formulate agricultural credit plans for both the short and long-term in order to make credit extension consistent with agriculture and rural development in each locality. At the initial stage the plan will concentrate on the provincial level.

(2) Increase BAAC's capital during the Fifth Plan period according to the BAAC Act.

(3) Have commercial banks extend agricultural credit consistent with the importance of the agriculture sector.

4.2.6 Role of the private sector

a. Provision of productive inputs.

(1) Encourage the private sector to play a greater role in the production of high yield seeds. The government will avoid the production of seeds which the private sector is already producing such as maize, and will provide incentives to the private sector to encourage it to invest in the production of other seeds in order to lower the burden for the government, thus enabling the government to concentrate on other issues.

(2) Promote the private sector to set up a chemical fertilizer plant in the Eastern Seaboard area in order to satisfy domestic fertilizer demand.

(3) Encourage the private sector to produce marl to be used in alleviating the acid sulphate soil problem in the Central region.

(4) Encourage commercial banks and private financial institutions to extend more credit to small farmers. The government will formulate an interest rate policy which will allow a rate of interest compatible with risk.

(5) Encourage commercial banks to extend credit in areas which have high development potential. The government will invest in basic infrastructural facilities, agricultural technology, and will coordinate the extension of credit to certain specified activities.

b. Investment and joint management in the production process.

(1) Encourage the private sector to; invest in land consolidation in irrigated areas with ditches and dikes; provide productive inputs; and manage the sale of outputs. The government will act as the central core in the formation of farmers' groups and coordinate the benefits.

(2) Encourage the private sector to undertake concessional arrangements in the management of water allocation, maintenance of the irrigation system and the collection of water charges in specified irrigated areas.

(3) Encourage and provide incentives to the private sector to set up agro industries near production locations in order to reduce marketing and pricing problems of major crops, such as maize and fruits.

4.2.7 Conservation of natural resources and the environment

a. Soil

(1) Restore soil quality in areas previously used for mining activity in the South which caused environmental deterioration. Mine operators must bear the full costs for restoring the quality of the soils which have been disturbed during mining operations.

(2) Prevent soil erosion in highland areas by introducing soil conservation techniques to farmers.

(3) Formulate measures to prevent the expansion of urban areas on good agricultural land or areas in which the government has already invested funds or effort in developing an irrigation system.

b. Water resources

(1) Study and formulate remedial measures for the environmental effect caused by the construction of dams or large reservoirs.

(2) Systematically formulate a water allocation plan for main river basins such as Chao Phya and MaeKlong river basins. There must be sufficient water to drain away polluted water and prevent the intrusion of saline water. For the Chao Phya river basin, the water allocation system must also be consistent with the alleviation of flooding problems in the Bangkok Metropolitan area.

(3) Conserve and preserve the quality of water resources in order to avoid pollution which will cause damages to agricultural production and endanger marine life.

c. Forestry

(1) Conserve and seriously restore 40 million rai of watershed areas in the North and Northeast by planting fast growing trees.

(2) Conserve the 15 million rai of the 17 existing national park.

(3) Expand the 21 existing wildlife conservation areas from 11.5 million rai to 12.8 million rai.

CHAPTER 3

INDUSTRIAL RESTRUCTURING AND DECENTRALIZATION PROGRAMME

1. Summary of Past Situation

During the past 20 years of economic and social development, the level of industrial investment has been rising very rapidly as evident from the appearance of many new industries, such as those for electrical appliances, electronics, oil refineries, car tyres, construction materials, garments, paper, steel, sweet condensed milk, car assembling, car and motorcycle spare parts, wood products, furniture, ornamental items, and jewelry. It is clear that the industrial sector has greatly developed and increased its role in the country's economic system. The share of manufacturing output has increased from 13.1 per cent of GDP in 1960 to 21.0 per cent in 1981 compared with the agricultural share of 24.8 per cent of GDP in 1981. Moreover, it is estimated that at the end of the Fifth Plan period the value of manufacturing output will roughly equal that of the agriculture sector if policy measures are implemented to increase efficiency in the manufacturing sector in accordance with the Fifth Plan. It is expected that Thailand will be transformed into the group of "semi industrialized" countries by the end of the Plan period.

2. Issue

2.1 The industrial structure is still very import dependent

The past expansion of the industrial sector is partly due to benefits from the government's investment promotion policy which has provided high protection to new industries. This has created a situation where some of these industries have become rather inefficient and internationally uncompetitive.

Furthermore, the structures of most industries are highly dependent on imported raw materials, capital goods, machinery and energy resulting in a continuously rising trade deficit. The manufacturing sector is the main sector which utilizes most of the foreign exchange earnings generated by the agriculture sector, and thus it is most vital to restructure the manufacturing production process to be less import oriented by using more local raw materials and other factors of production.

2.2 The export industry is not efficiently developed

Although the government has been promoting the export industry since the Third Development Plan, the structure of the government's industrial promotion privileges is mainly biased towards the protection of import substitution industries for the domestic

market. Moreover, it is clear that the provision of basic facilities and promotional privileges for export trade are still inadequate to effectively boost the development of the export industry. For example, the tax structure is still biased towards import substitution, tax rebates for exports are still not systematically calculated and implemented, and the provision of basic infrastructural facilities for export promotion, like export processing zones and bonded warehouses, has not been seriously approached. Furthermore, the promotion of the development of the export industry is under the responsibility of many government agencies resulting in various problems.

2.3 Industrial activities are mostly located in and around Bangkok and not dispersed to provincial areas

Though the government's policy is intended to disperse industrial activities to provincial areas, in practice this has been unsuccessful. In 1973, among the 36,057 factories registered with the Industrial Works Department, 41.2 per cent were located in the Central region of which 23 per cent were located in Bangkok. Among the 67,736 registered factories in 1979, 40.9 per cent were in the Central region and 21.2 per cent were in Bangkok. Additionally, most of the large industries which have received promotional privileges are centred around Bangkok: among the 897 cases of promoted investment, 756 cases are in the Central region representing 84.3 per cent of the total number with 55.6 per cent of those located in the Bangkok Metropolitan area and Samutprakarn.

The concentration of industrial activities are due to the availability of basic infrastructural facilities in Bangkok and the surrounding area which is also the centre for commerce, transportation and communication, financial resources, and trained manpower. It is also observed that industries which are located in provincial areas are agro-industries requiring local raw materials and are industries which primarily produce goods for local consumption.

As for the development of the medium scale industry which will lead to greater diversification of manufacturing activities, active promotion is still lacking and encounters financial problems, operational problems, production problems, and marketing problems causing production costs to be higher than they should be. Production linkages or subcontracting between medium scale industry and large scale industry are still very limited resulting in slow expansion in the medium scale industry.

2.4 The production process and the use of technology in manufacturing industries are still not labour intensive

The development of manufacturing industries through investment promotion privileges which exempt or reduce import tax on machinery, has encouraged these promoted industries to make extensive use a lot of machinery in the production process and therefore discouraged employment creation. Moreover, a shortage of highly skilled labour has also resulted in increasing the use of machinery.

The promotion of foreign investment has partly encouraged the use of modern technologies which not only create limited employment but usually require machinery. Furthermore, the use of these technologies have resulted in higher production costs.

As manufacturing industries are capital intensive, they directly and indirectly consume a lot of energy and petroleum products. Energy consumption in manufacturing industries accounts for 30 per cent of total energy consumption and it is being used inefficiently since the majority of the production processes and factories were built during the cheap oil era. Even though, the private sector has recently started to improve the production process to conserve energy, it is still inadequate. Therefore, it is essential to introduce energy conservation measures in the industrial sector in order to lower production costs and alleviate the country's energy problems.

2.5 Development of basic industry has not occurred

The development and promotion of basic industry has not occurred due to uncertain and unclear basic industry investment policy, and a lack of long term planning. Moreover, there is no agency responsible for giving assistance in the development of basic industry projects, in identifying financial resources, and in project management.

During the Fifth Plan period, natural gas will be produced and as it is a very important input into other basic industries, it is essential to speed up the formulation of a natural gas utilization policy in order to give the maximum benefit for the country. The policy will include guidelines to be followed by the private sector in making decision on basic industry investment, especially in the Eastern Seaboard area which the government has already designated as the future location of the country's basic industry complex.

3. Targets for industrial restructuring and development.

The industrial sector must be restructured in order to serve the Fifth Plan's objectives of restoring the country's economic and financial position, dispersing economic activities to provincial areas, promoting energy conservation and encouraging technology development. Thus, it is essential to restructure the manufacturing industry with special emphasis on exports in order to lower the trade deficit and earn more foreign exchange, and to decentralize manufacturing activities to provincial areas in order to create more jobs. The following targets for the restructuring of the production process and industrial exports have been formulated:

3.1 Manufacturing output is to expand by at least 7.6 per cent per annum.

3.2 The export industry is to expand by at least 15 per cent per annum and efforts should be made to increase this to 25 per cent by promoting primary processing industries, such as those for processed foods, jewelry, ornamental items, furniture, leather and rubber products, and wood products. Also, the government should speed up the export of textile products, construction materials, electrical components, car and motorcycle spare parts, and garments.

3.3 The manufacturing industry for local consumption is to expand by 5-6 per cent per annum.

3.4 Restructure 10 categories of industries at an annual rate of two categories per year.

3.5 Medium scale industry is to expand at a higher rate than large scale industry, and industries in provincial areas are to expand faster than those in the Bangkok area.

3.6 Manufacturing employment is to expand at an annual rate of 7.6 per cent per year or by 168,400 persons annually.

3.7 The consumption of petroleum products by manufacturing industry is to increase by at most four per cent per annum.

4. Policies and measures

4.1 Overall industrial investment policy.

(1) The government will promote the private sector, both domestic and foreign, to invest in the production and marketing of manufactured goods. The government will stipulate measures and regulations to direct manufacturing development according to the targets including in the Fifth Plan.

(2) In general, the government will temporarily participate in an investment project with the private sector at the initial stage. However, the government may participate permanently if the activity is considered vital to the country's economy and security.

(3) The government will avoid the use of price control measures except in those cases where the industrial structure is monopolistic. In general, the government will use the market mechanism to regulate prices.

(4) The government will cooperate with the private sector in implementing industrial development policies as already described in order to attain the targets.

4.2 Policy measures for specific industrial development.

4.2.1 Restructuring of specific industries.

The policy goal is intended to restructure certain existing and new industries in order to increase efficiency, enabling them to be competitive in foreign markets and in the domestic market by emphasizing efficiency improvement to lower production costs and the determination of fair prices for producers and consumers. The following measures will be implemented:—

(1) Adjust import taxes to levels which are not excessively high.

(2) Adjust and collect business and excise taxes on imported goods and locally produced goods at the same rate.

(3) Abolish general import control.

(4) Impose price control only in certain essential cases and only for short periods.

(5) The government will implement sectoral industrial development and promotional policies by sector, consisting of investment promotional privileges, and financial, technological, tax, and legal assistance.

4.2.2 Industrial export promotion measures.

The government will promote investment in the export industry by providing incentives and facilities as well as eradicating various obstacles to exports. The government will adjust various industrial incentives in order to reduce advantages of production for local consumption vis-a-vis production for exports through the following specific measures:—

(1) Improve the export promotion plan and measures by giving the responsibility to one central agency, and by enacting a special export promotion act in order to coordinate various export promotion policy measures.

(2) Predetermine a fixed rate of tax rebate on the value of export. The tax will be paid to exporters in the form of tax credit when the goods are being exported in order to avoid delays.

(3) Increase sources of loans for export production at an interest rate appropriate with market conditions, and establish an export credit guaranteed scheme.

(4) Set up export processing zones and bonded warehouses.

(5) Increase the Ministry of Commerce's efficiency in providing export services including improved trade negotiations with foreign countries. Export controls will only be imposed in special cases, and an export promotion fund will be established.

(6) Promote and control the quality and standard of exports.

(7) Encourage export expansion to the other ASEAN countries and cooperate with them in exporting to the world market.

(8) The export promotion policy must be implemented to benefit the general public, especially the export of essential goods which could cause shortages in the country. In this case the government will impose a temporary export tax on excess profits.

4.2.3 The promotion of small scale industry and industrial development in provincial areas.

The government will promote small scale industry into the basic foundation for the country's industrial development, and at the same time it will speed up industrial decentralization to provincial areas in order to disperse economic activities and increase the use of local natural resources. This will be accomplished in concert with the regional and regional urban development plans through the following specific measures;—

(1) Improve and expand the promotion of small scale industries in provincial areas.

(2) Develop a credit extension system and related institutions for small scale industries in outlying regions.

(3) Improve research work, develop production technology, and improve management techniques. In addition, the Ministry of Commerce, Ministry of Industry, and Ministry of Science and Technology are to cooperate in the expansion of markets for small scale industries.

(4) Promote the production sub-contracting system between small scale industries and large scale industries.

(5) Speed up the identification of industrial zones according to size and category in various provinces.

(6) Speed up the development of industrial zones along the Eastern Seaboard and industrial estates in outlying regions. Explore the feasibility of establishing an area for basic industry and related industries in other coastal zones.

(7) Discontinue investment promotion for new industrial investment in Bangkok and surrounding area except for labour intensive export industries in Bangkok's neighbouring provinces.

4.3 The promotion of industrial employment.

Promote employment creation, particularly in export industry, labour intensive industry and technology, and provide trainings to increase skills and quality of the labour force for both the public and private sectors. The following measures will be used:

4.3.1 Direct measures

(1) Improve incentives in the Investment Promotion act B.E. 2520 in order to promote an increase in industrial employment by reducing or abolishing import tax exemption for industries which cater for the domestic market, and by providing other forms of employment incentives.

(2) Promote and encourage training and development of skill in order to increase the labourer's capability and quality by seeking greater participation from the private sector.

(3) Supervise foreign investment and transfer of technology to the Thai labour force by promoting the transfer of technology through training in labour intensive industries.

4.3.2 Indirect measures.

(1) Promote investment in labour intensive export industry.

(2) Conduct research into the demand for skilled workers by manufacturing businesses and develop labour intensive production techniques.

(3) Mobilize financial assistance from the private sector and from abroad for training workers. This will include the cost for machinery, equipment, materials, and training experts.

4.4 Energy conservation in industrial sector.

Encourage the conservation of all forms of energy in industrial production, particularly petroleum products. Moreover, the government will adjust the energy pricing structure to reflect the real economic cost in order to promote efficiency and conservation of energy utilization in the industrial sector. The following strategies and measures will be implemented:—

(1) Formulate investment promotional privileges and tax incentive measures to encourage energy conservation in the industrial sector.

(2) Encourage industry to substitute the use of oil by other forms of energy, and to install machinery which will help to conserve the use of oil.

(3) Provide financial assistance to industry for the improvement of production processes in order to conserve energy.

(4) Study and publicize energy conservation techniques.

4.5 Foreign investment promotion.

In order to promote foreign investment to the maximum benefit to the country's industrial restructuring programme, the following measures will be implemented:—

(1) There will be an agency responsible for the promotion, selection, and supervision of investment, trade, technology transfer, and registration of all foreign investment.

(2) Promote the diversification of foreign investment sources.

(3) Encourage technology transfer to improve the skill of the Thai labour force in foreign businesses.

4.6 Development of basic industry.

Speedily formulate a system and strategies for the development of major basic industries in the country, particularly a development plan for the iron and steel industry including the determination of location and provision of infrastructural services, and the formulation of strategies for the development of basic industries especially gas related industries, in the Eastern Seaboard area. The following measures will be implemented:—

(1) Formulate a plan for the development of basic industries in the Eastern Seaboard area, taking into account the relationship and linkages between industries and raw materials, in particular natural gas, i.e. the gas separation project, the petrochemical industry, and the fertilizer industry.

(2) Establish a promotional system for basic industry by assigning the responsibility to one particular agency which must be capable of considering the project's suitability as well as developing the project at the investment stage.

(3) Promote existing basic industries such as the iron and steel industry and natural resource based industries, and provide protection which is not higher than the general level.

(4) The government will only participate in the investment of basic industry in certain cases, such as joint foreign investment projects which require government participation, or very big projects which the private sector is not capable of undertaking.

4.7 Coordination of the overall industrial restructuring programme.

In order to coordinate various industrial restructuring policies, an Industrial Restructuring Committee will be established during the Fifth Plan period. There will be close cooperation and coordination among various agencies in both the public and private sectors, and sectoral industrial development sub-committees will be established in order to efficiently formulate and implement industrial development and expansion plans.

CHAPTER 4

DEVELOPMENT AND PRODUCTION OF MINERAL RESOURCES

1. Summary of Past Situation in Mineral Resource Development

During the past 20 years, the mining industry has greatly developed and expanded. According to production statistics, mineral output excluding natural gas and underground water has increased from 2,597.6 million baht in 1972 to 9,741.4 million baht in 1978 and 15,845.2 million baht in 1980. The share of mineral output in GDP has fluctuated between 1.2 per cent to 1.7 per cent and the annual rate of expansion during the Third Plan and Fourth Plan periods were 0.95 per cent and 12.6 per cent respectively.

Although the role of the mining industry when considered from past production performance is still small compared with production in other sectors, existing information from mineral resource surveys indicate that the country's mining potential is high. If this is properly developed, the mining sector will play a very important role in the alleviation of the balance of payments problem. Furthermore, the mining industry also has a role in rural employment creation which will assist in slowing down the migration of the rural population into urban areas. It will also help to extend the transportation network into remote areas resulting in the dispersion of economic activities to the rural areas.

In order to develop the mining industry in accordance with mineral resources potential and to reach the Fifth Plan's target in mineral output expansion of 16.4 per cent per annum (including natural gas), it is necessary to address the following important issues.

2. Issues

2.1 Mineral production does not yield a sufficiently high return due to illegal and inefficient mining activities in mineral rich areas causing damages to mineral deposits and providing low returns.

2.2 Lack of proper coordination in mineral resources development. There is a lack of coordination between environmental work, agriculture, forestry, water resources development, fishery, tourism, and mineral resources development.

2.3 The government's basic infrastructural facilities are insufficient. The government has not sufficiently provided essential infrastructural facilities such as roads and electricity for the promotion of mining activities. This has resulted in a rather high mineral production cost because mining operators have to invest in such infrastructural services. Moreover, there is also a lack of technical services and information which will permit the private sector to improve production efficiency and facilitate investment decisions in the mining industry.

2.4 Lack of market study. This is the most important obstacle to the expansion of mineral output which is often produced excessively resulting in price declines to levels below production cost. The lack of marketing data and a good monitoring system for each mineral

as well as the lack of collusion among producers are important problems affecting the mining industry.

3. Targets

Once the above issues are resolved the development of mineral resources will improve the management of mineral resources, increase mineral production efficiency, and diversify mineral production in order to satisfy export demand and domestic consumption. The following targets have been established.

3.1 The value of mineral production at constant prices will expand by at least 13.1 per cent per annum (excluding natural gas).

3.2 Diversify mineral production such as industrial minerals, fuel minerals and exportable minerals according to the following targets:—

	Annual growth rate	Estimated Production in 1986 (metric tons)
Tin	3	57,000
Tungsten	10	5,093
Fluorite	3	217,000
Lead	5	32,990
Barite	10	737,889
Lignite	18	4,256,000

4. Policy Directions and Measures

4.1 Mineral resources management

4.1.1 Policy directions

(1) Speed up mineral surveys in order to determine the amount of important mineral reserves, particularly minerals which produce export earnings for the country, industrial minerals, energy minerals, and minerals which are used as fertilizers.

(2) Evaluate the result of past surveys in order to find out mineral resources potential. These will be released to the general public to create incentives for the private sector to carry out detailed surveys and establish mining operations.

(3) Improve the efficiency of the production process and take into account mineral resources and environmental conservation.

(4) Mineral development work should be carried out consistent with the work of other relevant organizations especially those responsible for environmental conservation.

(5) Accelerate the eradication of illegal mining activities.

4.1.2 Measures

(1) The Department of Mineral Resources is to formulate an operation plan which is consistent with the targets and policies of exploring exportable minerals such as tin and tungsten, and those minerals which will help to develop other related industries such as iron, copper, zinc, energy minerals like lignite, oil shale and uranium as well as minerals used in fertilizer production for example potash and phosphate.

(2) Determine commercially exploitable mineral deposit areas and conduct an alternative land use study for agriculture, forestry, water resources, fishery and tourism. Consideration must be given to economic returns and environmental impact.

(3) Determine the minimum efficiency standard for mineral production, and provide advice and data for efficiency improvement for the private sector.

(4) Closely coordinate the work of all relevant agencies to the benefit of the national interest, particularly the Ministry of Agriculture and Cooperatives, Ministry of Interior, National Environmental Board and the Tourism Authority of Thailand.

(5) Mining operators must be held responsible for environmental deterioration and pollution caused by mining activities, and for land rehabilitation after the completion of mining activities.

(6) Determine a definite boundaries for areas which have illegal mining activities and restrict them within these boundaries. Any further intrusion into areas outside the established boundaries should be dealt with legally and diplomatically in order to avoid ruling problems.

(7) Those already within the boundaries must conduct their operations under the law by registering, paying royalties and producing minerals according to government standards.

(8) Develop a public relations programme on the disadvantages of utilizing incorrect mining methods and conducting mining activities. The government will introduce the correct and legal mining methods in order to benefit mining operators and the general public.

(9) Improve mining royalties and other taxes by taking into consideration prices, profits and the production cost of each mineral in order to give mining operators sufficient profits for further operations.

4.2 The expansion of government services

4.2.1 Policy

The government will speed up the expansion of infrastructural and technical services in order to promote mining activities, reduce production costs, and increase producer efficiency.

4.2.2 Measures

(1) Coordinate the work between mining operators and central government agencies connected with the construction of basic infrastructural services. The Department of Mineral Resources will coordinate the work with the Highways Department, Department of Public Works and Office of Accelerated Rural Development in order to expand infrastructural services, particularly in areas with good mining prospect.

(2) Speed up the interpretation and collection of mineralogical data, and improve the methods of mineral production and mineral dressing which will be released for the use of private mining operators.

4.3 Government's role in investment promotion

4.3.1 Policy

(1) The government will promote and encourage the private sector to invest in the mining industry in the form of public companies. The government may also participate in certain areas, but only if it is necessary

(2) The government will encourage investment chiefly by local investors, but may also open an opportunity for foreign investors in those activities which require high investments and technology under certain conditions to be determined by the government.

(3) The government will promote the use of manpower in the mining industry but in so doing will take into account operational efficiency.

4.3.2 Measures

(1) Improve the coordination of the Department of Mineral Resources mineral exploration and development policies with those of the Board of Investment by categorizing minerals and sizes of investment as well as determining areas for exploration and mining.

(2) Formulate the investment policies to maximise employment creation by using machinery only in essential cases.

(3) Promote efficiency in the mining industry and the dispersion of income to the people.

(4) Government agencies are to increase the exploration and development of mineral deposits.

4.4 Marketing and the promotion of mineral utilization

4.4.1 Policies

(1) The government must be well informed on the situation in the mineral market in order to formulate marketing policies to the benefit of the country. Moreover, the government will promote cooperation among producing countries in order to maintain price stability.

(2) The government will promote and encourage the utilization of local minerals by creating related industries which will increase the value added of mineral outputs and economic benefits instead of exporting them in the form of metals.

4.4.2 Measures

(1) Studies on the current situation and prospects in the mineral market will be undertaken in order to formulate production targets and maintain the balance between production and consumption. To attain this, the Ministry of Commerce, Ministry of Industry and other relevant private organizations must coordinate their work, provide for the guidelines for the study and follow up of each kind of mineral, particularly fluorite and barite which presently have marketing problems.

(2) Conduct studies and perform research on the development of mineral smelting and dressing and promote these activities particularly for those minerals which are utilized locally.

(3) Conduct studies on mineral related industries for each mineral.

(4) Speed up investment promotion in mineral smelting and dressing industries, particularly for industrial minerals.

CHAPTER 5

FOREIGN TRADE AND SERVICES RESTRUCTURING PROGRAMME

1. Export Promotion and Import Deceleration

1.1 Summary of past development in exports and imports. During the Fourth Plan period (1977-81), foreign trade has played a greater role and exerted a greater influence on the country's economy. This is evident from the share of exports and imports in GDP which has risen to 46 per cent during the Fourth Plan period from the corresponding figure of 38 per cent during the Third Plan period (1972-76). Exports and imports of goods rose by 22 per cent and 26 per cent per year respectively, higher than the planned targets of 14 per cent and 11.5 per cent. However, since imports grew faster than exports, the value of the country's trade deficit has risen continuously to an annual average of 45,300 million baht during the Fourth Plan period, greatly affecting the country's external financial position.

When considering the structure of exports according to categories and economic characteristics, it is clear that the groups of commodities which are becoming increasingly important to the structure of exports are manufactured goods, fishery and mineral products, while agricultural products are playing a declining role. During the Third Plan period, the share in total goods exports of agricultural, manufacturing, mineral and fishery products were 54 per cent, 23 per cent, 8 per cent and 4 per cent respectively. These ratios become 47 per cent, 26 per cent, 10 per cent and 4.7 per cent respectively during the Fourth plan period. From the marketing point of view, export markets have been diversified to developed countries and oil producing countries in the Middle East. Moreover, there is still good potential for further expansion in exports through the diversification of commodities and new markets provided export targets and development policies in the Fifth Plan are implemented systematically.

On the imports side, during the Fourth plan period the value of imports has greatly increased due to the explosion in the price of oil which has resulted in the rise of oil import share to 30 per cent of total goods imported. Furthermore, the industrial structure is still very dependent on imported machinery, raw materials, and semi raw materials. It is essential to reduce the value of imports through restructuring the manufacturing industry and improving the energy utilization structure if the country's trade deficit during the next five years is to be reduced. If the past trend is allowed to continue, the country's economic and financial position will be severely affected. Thus, during the Fifth plan period (1982-86) the target for the deficit on the trade balance is 78,400 million baht per year on average. To attain this, measures must be implemented to eradicate problems and obstacles in order to speed up exports and effectively slow down imports.

1.2 Issues of export. In the past, the exporting of goods has encountered the following major obstacles:-

- (1) The flow of exports has been obstructed by government regulations and rules which have been imposed for other purposes. Moreover, the existing export promotion laws do not encourage the private sector's direct participation and many government's intervention policies turned out to be restrictive, thus increasing the cost of exports.

(2) There is a lack of institutions in both the public and private sectors for effective export promotion. Existing institutions have limited capabilities and are unable to adjust their roles according to the changing export and world trade situation.

(3) The government's export promotion services are inflexible and inefficient and thus are unable to provide useful services to the private sector. Furthermore, fiscal and monetary measures for export promotion are still very limited. Therefore, in order to promote exports and reduce the trade deficit, the following export targets are formulated:—

1.3 Export targets. During the Fifth Plan period, major export targets have been set as follows:—

(1) The value of goods export is to increase by 22.3 per cent per annum.

(2) Export structure will attain the shares of 41 per cent, 36 percent, eight per cent and four per cent of the total export value for agricultural, manufacturing, minerals and fishery products, respectively.

(3) Expand and diversify to new markets in the Middle East, Eastern Europe, Northern Europe, Africa, and America.

1.4 Export policies. In order to attain the above export targets, the government will implement the following export promotion policies:—

(1) The government will revise various laws, regulations, and reduce restrictions and intervention policies which create obstacles and burdens on export trade. Export policy coordination among various agencies will be improved to facilitate exports.

(2) Promote further diversification of exports consistently with restructuring programmes in agriculture and industry and encourage price and quality competition.

(3) Maintain and secure existing markets and penetrate new export markets, particularly those markets with high purchasing power. The government will conduct international trade negotiations so as to benefit export trade, and fully utilize international trade preferences to the benefit of the country's export trade.

1.5 Export promotion measures

1.5.1 The existing Export promotion Act (1960) is to be revised to eradicate problems and obstacles create by other laws, provide severe penalties for those who improperly practise export trade damaging the national interest, and to determine the proper role of the private sector in the formulation of trade regulations and export promotion policy. The Export Development Committee will be responsible for policy formulation and the alleviation of export problems, and the Ministry of Commerce will implement measures according to this Act.

1.5.2 Review and adjust export taxes, fees, and regulations and keep them to the minimum in order to avoid creating burdens and obstacles to export trade and consistent with the policy to raise domestic prices of agricultural products.

1.5.3 Develop export promotion institutions in both the public and private sectors.

(1) Establish an export credit guaranteed scheme in order to reduce the risk of financial institutions. This will increase the flexibility of exporters, particularly small exporters.

(2) Establish a packaging development centre in order to facilitate exports and increase qualities. To achieve this, the existing work of the Thailand Institute of Scientific and Technological Research will be improved, extended and coordinated with the public and private sectors.

(3) Establish an export training centre with regular syllabus by improving the existing work carried out by the Commerce Ministry.

(4) Encourage the private sector to merge into exporter's groupings in order to create bargaining power and manage export trade more efficiently.

(5) Encourage the private sector to establish institutions or agencies to provide disease and commodity inspection services with guarantee from the government in order to expand and speed up these inspection services.

1.5.4 The maintenance of existing markets and penetration into new markets. The government will maintain existing markets in Asia, Europe, U.S.A. and Australia and open up new markets particularly those with high purchasing power in Middle East and Northern Europe Countries. In addition, the government will also diversify into Europe, Africa and South America. The following measures will be adopted:

(1) The Ministry of Commerce is to formulate annual export operation plans with clearly defined operational targets. Coordination among relevant agencies particularly the private sector will be sought.

(2) Establish an export promotion fund in accordance with the Export and Import Act of 1979 in order to increase export flows and improve export promotion services of the government.

(3) Promote activities related to trade representatives and trade fairs in foreign countries by formulating a clearly defined plan with the private sector. A permanent centre for trade fairs is to be established in the country with the private sector's participation in investment and operation.

(4) Promote trade negotiations as a means for reducing obstacles and various trade restrictions by carefully preparing the tactics with the private sector in order to avoid conflicts of interest. Moreover, government agencies in charge of trade negotiations will be improved to sufficiently cover the increasing importance of trade negotiations.

1.5.5 Government incentives must be improved as follows:

(1) Tax rebates. Tax rebates will be a fixed proportion of the export value with a simple tax rate structure; goods of the same category will have the same tax rebate rate. The management of the tax rebate system will be made more efficient.

(2) Encourage domestic financial institutions to increase export credit more extensively, and the Bank of Thailand is to improve the rate of interest and value of export rediscount facilities in order to provide incentives for exporters to use these services through commercial banks and diversify the number of exporters and commodities.

(3) Formulate credit measures which will promote and provide incentives for exporters to stock pile agricultural goods in order to export at the appropriate time in accordance with market conditions. Apart from promoting export, this policy will also be able to support domestic agricultural prices at the beginning of the season.

(4) Identify incentives in the form of a merit system for exporters, particularly for the exporting of new products and the penetration of new markets.

1.6 Issues of import problems. In the past, the import of goods have faced the following problems:

(1) Imports consisted primarily of petroleum products whose prices have risen substantially. Therefore, it will be necessary to restructure domestic energy consumption pattern particularly in the transportation sector. Moreover, the import of capital goods, raw materials and semi-raw materials have also risen sharply due to high import content of the existing industrial structure.

(2) There has been a lack of follow up and evaluation of the structure of imports for formulating appropriate production, investment, trade, and tax policies. In addition, there has been no real effort to economize the use of imported goods both directly or indirectly. Therefore, in order to slow down imports and reduce the trade deficit in accordance with the targets, it is essential that the following import targets be adopted.

1.7 Import targets. During the Fifth Plan period, the target for the value of goods import growth rate is 18.1 per cent per annum with the following import deceleration policies and measures.

1.8 Import policies. In order to slow down the value of imports, the government will implement the following policies:

(1) Adjust the energy consumption pattern and industrial structure in order to slow down imports, and carry out a detailed study on import structure to be used as guidelines in the formulation of various related production and consumption policies. In addition the government will encourage the use of locally produced goods and more efficient use of imported items.

(2) Build up a foreign trade bargaining system by determining the standard and quality of certain imported goods as well as diversifying import markets.

1.9 Import reduction measures. To attain the above policies during the Fifth Plan period, the following import reduction measures will be implemented:

(1) The Ministry of Commerce is to carry out a detailed import analysis study to be used in the formulation of appropriate production, investment, trade, and fiscal measures.

(2) Standards and qualities of certain imported goods will be stipulated in order to slow down imports and acquire goods of sufficiently high qualities by assigning to the Office of Industrial Standards the responsibility for determining standards and the Ministry of Commerce to give permission to import such goods.

2. Tourism Development

2.1 Summary of past tourism development. During the Fourth Plan period, the expansion of the tourist industry has been much higher than the overall economic growth rate. The number of foreign tourists reached 1.85 million in 1980 resulting in tourism income of 17,800 million baht compared with the Fourth Plan's target of 11,700 million for 1981. The tourist industry has greatly diversified by adding various tourist attractions in the provincial areas. For example the amount of investment in provincially-located hotels totalled at least 2,500 million baht. Moreover, the government has also promoted basic infrastructural facilities to support these tourist attractions. However, private investment in new tourist attractions has increased rapidly, causing problems in the appropriate type of investment. Under existing laws the tourism Authority does not power to effectively regulate and conserve tourist resorts and therefore has had to rely on other agencies, resulting in delays and damage to the environment of various tourist attractions. Although, the expansion of

the tourist industry has increased the demand for high quality personnel, trainings is still limited despite the government's efforts in promoting the Hotel and Tourism Training Institute.

2.2 Issues in tourism problems consist of the following:

(1) Problems of conservation and restoration of tourist attractions continue to exist especially since the government is unable to control land use and construction activities in tourist areas. Furthermore, the investment in infrastructural facilities in many tourist areas is inadequate.

(2) The safety of lives and property of tourists, the lack of orderly management of tourist businesses, and shortages of service personnel of sufficient standard, also inhibit the development of tourism.

(3) The promotion of tourism lacks coordination within the public sector between the public and private sectors, understanding in conservation and information system.

2.3 Tourism development targets during the Fifth Plan period consist of the following:

(1) The number of foreign tourists will increase by 8.4 per cent per annum.

(2) The length of stay per foreign tourist is to rise from 5.1 days in 1982 to 5.5 days in 1986

(3) Income from tourism is to expand by 21.5 per cent per year reaching 50,000 million baht in 1986

2.4 Policies. To attain the above tourism expansion targets, the government will introduce the following policies:

(1) Promote and encourage more foreign tourists to come to Thailand to spend more time and money. As for Thai tourists, the government will implement measures to slow down foreign travel in order to save foreign exchange and encourage the Thais to travel within the country.

(2) Promote investment of both the public and private sectors to develop existing and new tourist attractions.

(3) Encourage the private sector to invest in the tourist industry at a low cost which will ensure international competitiveness. Furthermore, the government will create confidence and provide safety of lives and property for tourists.

2.5 Measures. In order to achieve the targets and policies of the Fifth plan, the following tourism development measures will be implemented:

2.5.1 Restore, conserve and develop tourist attractions in order to conserve the environment and improve tourist attractions. Measures consist of the following:

(1) Improve the Tourism Act of 1979 to provide more authority in the controlling land use of construction in designated tourist areas. While this act is being reviewed, other laws should be used to provide the necessary authority. Furthermore, investment in essential infrastructural facilities will be speeded up according to various tourist resort master plans.

(2) Formulate an overall tourism plan which systematically rank the importance of tourist attractions for every region and include clearly defined operating procedures and a system for monitoring and evaluation.

2.5.2 Develop tourism services in order to improve the competitiveness of Thai tourism. The following measures will be adopted:

(1) Improve crime prevention and suppression to create confidence in the safety for tourists by promoting tourist police, and faster investigation of cases involving foreign tourists.

(2) Improve the Tourism Act to provide authority for the control and regulation of tourist businesses in order to prevent unfair competition which will destroy the tourist industry, and coordinate the public and private sectors in improving tourist services and facilities to a sufficiently high standard.-

(3) Speed up manpower development in the tourist industry at all levels to sufficiently high standards in order to reduce foreign personnel particularly at the management level.

2.5.3 Promote tourism to encourage foreign and local tourists to travel in Thailand. The Following measures will be implemented:

(1) Improve marketing techniques and formulate a marketing management system with the private sector assigned a greater responsibility at all levels, from seeking information, understanding and plan formulation onwards to the implementation of marketing strategy.

(2) Publicize information and understanding in the conservation of the country's natural resources and national heritage in order to create a sense of affection and preservation for these resources as invaluable aids to the tourist industry.

(3) Establish an information centre to coordinate and gather information affecting the tourist industry. This will require closed participation by both the private sector and the press.

(4) Implement measures to slow down the outflow of Thai tourists in order to prevent the loss of foreign exchange and encourage them to travel within the country. In particular, it is essential to improve public services, e.g. railways and buses, in order to promote their use by tourists and to conserve energy.

CHAPTER 6

ENERGY PRODUCTION AND CONSUMPTION RESTRUCTURING PROGRAMME

1. Summary of the past energy situation

During the past 20 years of national development under the first four national development plans, the economy has expanded rapidly, practically in all sectors with extensive production diversification in agriculture, services and trade, and development of a modern industrial base in and around Bangkok. To this end, the government has invested in the improvement and expansion of infrastructural services in order to satisfy the requirement of the economic activities, in particular the road transportation network has been increased from only 8,500 km. of roads in 1962 to the present network of 104,000 km. Furthermore, the expansion of industry and commercial activities as well as the population has created a rapid rise in the demand for electricity at an annual growth rate of 20 per cent on average. This has resulted in the expansion of electricity generating capacity from 286 megawatts in 1962 to 3,736 megawatts in 1981.

The above development activities have resulted in a rapid increase in domestic energy demand by six folds during the past 20 years from 2,760 million litres of crude oil equivalent in 1962 to 17,960 million litres in 1981. Most of the energy supply (or 75 per cent) comes from imported petroleum products.

It is worth observing that before 1974 or during the "cheap oil era" the country's energy demand expanded at a rather high rate of 13 per cent per annum on average during the period 1962–1973. After the big oil price increase by OPEC in 1974, the world entered the "expensive oil era" and the country's energy demand began to increase at a lower rate of 7 per cent per annum during the period 1974–1981. This is still relatively high because the government has been trying to postpone the adjustment of domestic energy price despite the actual price increase in the world market of twelve-fold between 1974 and 1980.

The fact that energy prices, energy consumption and substitution by indigenous sources have not been adjusted timely to the world energy situation is an important factor in the continuing expansion in the demand in domestic energy needs presently increasing by six per cent per annum. This has resulted in the use of 42 per cent of the foreign exchange earned from exports in purchasing imported oil, totalling approximately 68,000 million baht in 1981. It is also an important cause for the chronic deficit in Thailand's trade account which is endangering the country's financial position. It should also be noted that Thailand is the fifth largest importer of petroleum products among the group of non-oil developing countries. All these indicate that the energy situation has caused the country to overspend and is critically endangering the maintenance of the country's economic and financial stability. Thus, it is vital to systematically adjust the country's energy production and consumption structures during the next 5 years.

2. Summary of issues

The above description of the energy situation of the country indicates key issues in energy consumption and pricing structures, the high dependence on imported oil to satisfy

the domestic energy requirement, and problems of the country's management of which is scattered among various agencies in both the public and private sectors. The issues can be summarized as follows:

2.1 The problem of Thailand's very high and increasing dependence on imported oil. The country's dependence on imported oil has risen from 50 per cent of total energy consumption in 1962 to 75 per cent in 1981. This is the most important issue for the country's economic stability and survival because oil price in the world market are expected to continue, there are many uncertainties in the oil market and about the political vulnerability in the Middle East, and the financial burden for importing oil will continue to rise. As a result, the country's economic position will no longer be able to cope in the near future. Thus, it is vital to redress the balance in energy sources and reduce the dependence on imported energy. This is also related to the issues in adjusting the energy pricing structure and problems of inefficient energy utilization in the transportation and industrial sectors.

2.2 Problems of concentration of energy consumption in a few economic activities, lack of conservation and inefficient use. Approximately 80 per cent of the petroleum consumption, which has expanded rapidly, is used by only three economic sectors, namely transportation and communication, electricity and manufacturing. This is a highly imbalanced energy consumption pattern when compared with other countries, in particular the transportation and communication sector which consumes 42 per cent of total petroleum. Thus, energy resources are being inefficiently utilized with no conservation effort primarily because the pricing structure of petroleum products has been distorted, traffic congestion is severe, and the road transportation industry is competitively wasteful. When comparing unit costs, the cost of road transportation is higher than for rail and water transportation. As for the consumption of energy by the industrial sector, production methods and machinery are out dated, resulting in unnecessary losses of energy.

Furthermore, energy consumption mostly centres around large urban areas, particularly the Bangkok Metropolitan Area which uses 10 times as much electricity as provincial areas, and six times of petroleum products. The use of energy in the rural area is still very low, for example, the agriculture sector consumes eight per cent of the country's total energy consumption, and in 1980 only 18,511 villages, representing 36 per cent of the 51,211 villages having electricity. Therefore, there is a disparity and imbalance of energy consumption among production sectors and between urban and rural areas. In summary, the energy consumption pattern is highly concentrated, indicating that past economic and social development efforts have resulted in highly concentrated growth centering in and around Bangkok and has not sufficiently been dispersed to other regions.

2.3 Problems of the distortion of domestic energy pricing structure by the taxation system resulting in further problems of oil procurement, oil reserve and refining capacity. During the period 1974-79 after the world energy crisis, the government tried to insulate domestic energy consumers from the effects of the external oil price explosion by postponing domestic energy price adjustments. It was not until 1980 and 1981 that the government seriously adjusted the domestic prices. Furthermore, pricing of various petroleum products is also distorted and inappropriate due to differences in tax rates, resulting in the distortion of energy pricing structure. This has led to substitutions between different kinds of petroleum products, for example, between benzine and diesel and between cooking gas and benzine. All these have caused an inefficient use of energy in the country, incompatible with the country's production and refining capacity. As a result shortages of certain petroleum products have occurred at various intervals, especially the shortage of diesel and cooking gas.

Therefore, the fact that the country's dependence on imported oil amounts to 75 per cent of total energy consumption, coupled with the characteristics of a petroleum pricing structure wherein the demand for certain petroleum products are incompatible with refining capacity, have created domestic shortages from time to time and accentuated the problems of oil supply and reserve. Furthermore, the process of oil procurement still suffers from the need for long term contracts with the oil producing countries to assure a steady supply of oil to meet domestic requirements. In the absence of such contracts, Thailand had to rely on spot market which is not only expensive but uncertain at best. This has resulted in the need to maintain oil reserve stocks to satisfy demand during the time of crisis even though such stock are creating a financial burden and the need to acquire additional equipment and locations for oil reserve stocks.

In addition, the country's oil refining capacity is only 175,000 barrels per day while the demand for finished petroleum products amounted to 215,000 barrels per day in 1980. This has forced the country to purchase increasingly expensive finished petroleum products from abroad to satisfy domestic demand which increased from 729 million litres in 1972 to 3,525 million litres in 1980.

Thus, it could be concluded that the domestic energy pricing structure, problems of oil supply and reserve, and oil refining capacity are closely interrelated. It is vital to formulate an energy plan to systematically provide a remedy for these problems consistent with the country's future energy requirements.

2.4 Problem of very high dependence on oil in the electricity generation. Eighty per cent of the electricity generated utilizes imported oil and at present electricity generation uses up approximately 19 per cent of total imported oil. Thus it is vital to diversify the sources of energy used in electricity generation in order to reduce the dependence on imported oil. In addition, the demand for electricity has been rising rapidly in the past to reach 200 megawatts at present, resulting in a financial burden in the construction of electric generating sources and the electricity transmission system which amounted to 11,140 million baht in 1980. The electricity pricing structure is also not as equitable as it should be since electricity rate for industry and business in provincial areas is higher than those in Bangkok, partly requiring manufacturing activities to concentrate in and around Bangkok instead of locating in other provincial areas.

2.5 The energy management system is still scattered among several government agencies. The present energy management system, whether it is in the fields of planning, production, marketing, consumption or energy pricing policy, is still scattered among many government agencies. Any control or systematic coordination is difficult from the points of view of consumption, conservation, and energy supply and development from various sources especially the development of small scale water resources. All these are posing problems for the formulation of a consistent energy policy which will yield the maximum benefit for national development in other directions.

3. Targets

In restructuring energy production and consumption to be consistent with the main objective of the Fifth Plan of lowering the external trade deficit and restoring the country's financial position, targets have been formulated to reduce both energy consumption and energy import. Indigenous sources of energy will be produced to substitute for imported energy, for example, the use of natural gas and lignite will increase. The energy management system will also be reformed during next five years.

3.1 Reduce the overall energy consumption growth rate to 4.8 per cent per year

on average by emphasizing efficiency improvement and energy conservation particularly in the transportation and industrial sectors.

3.2 Reduce the volume of oil imports by three per cent per annum during the Fifth Plan period.

3.3 Reduce energy dependence on imported oil fuel from 75 per cent of total energy consumption in 1980 to 46 per cent in 1986 by producing and utilizing indigenous sources of energy for substitution, for example natural gas, lignite, hydropower, and non-conventional energy sources. Targets for the production of indigenous sources of energy to be substituted for imported petroleum products have been formulated as follows:

(1) The natural gas production in the Gulf of Thailand will increase from 200 million cubic feet per day in 1982 to at least 525 million cubic feet per day in 1986. A gas separation plant with a minimum capacity of 350 million cubic feet will be constructed by 1986.

(2) Double the electricity generation capacity from hydro-sources from 1,269 megawatts in 1980 to 2,013 megawatts in 1986.

(3) Increase the electricity generation capacity from lignite from 210 megawatts in 1980 to 885 megawatts in 1986.

(4) Increase the use of non-conventional energy sources (alcohol, rubbish, fast growing trees, small scale water resources, oil shale, biomass, geothermal energy, solar energy, and wind power) to 220-290 million litres of crude oil equivalent by 1986.

3.4 Increase the country's refining capacity to approximately 280,000 barrels per day by 1986.

3.5 Expand rural electrification from 31,523 villages in 1980 to 50,034 villages by 1986, representing an increase in the proportion of villages with electricity from 36 per cent in 1980 to 92 per cent in 1986.

3.6 Increase the amount of the legal oil reserve for crude oil and petroleum products to an adequate level for emergency purposes, the reserve will rise from 36 days to 60 days of total consumption by 1986.

4. Strategies and measures

In order to achieve the above energy targets, the Fifth Plan has stipulated the following strategies and measures:--

4.1 Strategies

(1) Increase energy use efficiency by emphasizing efficiency of energy utilization to achieve conservation and reduction in the consumption of energy per unit output, particularly for the consumption of energy in road transportation and industrial activities. Apart from energy conservation in the transportation sector, it is still necessary to restructure the transportation system into less energy consuming modes, i.e., by using more water and rail transportation. The communication and telecommunication systems will be expanded to reduce the need to travel, and traffic congestion in urban areas will be improved. As for industrial use, the government will provide industrialists with fiscal and monetary incentives to improve the efficiency of their factories through the introduction of conservation measures and changes to a less energy consuming production method.

(2) Adjust energy pricing policies for all forms of energy to be timely, consistent and appropriate. Energy prices must reflect the true cost with no subsidies to be provided by the government in order to avoid substitutions among different forms of energy due to dis-

torted prices, as well as providing justice between producers, sellers and consumers.

(3) **Speed up the development of indigenous sources of energy** in order to reduce oil imports. Government agencies and the private sector will have to speed up the exploration and development of various indigenous sources of energy, particularly for the exploration of onshore and offshore oil; the development of natural gas in the Gulf of Thailand; exploration and development of water resources and lignite deposits; experimentation of energy production from oil shale; exploration of uranium; and the development of other non-conventional forms of energy. Meanwhile, the government will develop an energy procurement and reserve system in order to satisfy the country's future economic growth and stability.

(4) Promote investment in energy activities by the public and private sectors, both local and foreign, and encourage cooperation with foreign countries in energy resources development, procurement of energy and development of energy reserves.

(5) Accelerate the production and use of all forms of energy at an appropriate level which is suitable in rural areas. In addition, a consistent and coordinated plan will be formulated for energy procurement, production and consumption, taking into account environmental conservation.

4.2 Restructuring measures in energy production and consumption. Specific measures and major strategies for the attainment of energy restructuring targets are as follows:

4.2.1 Energy conservation measures

a. Communication and transportation

(1) Improve the efficiency of the traffic and mass transit system in the Bangkok Metropolitan Area by determining traffic flow, parking time and parking places in areas with heavy traffic congestion, and by changing working hours for government agencies, state enterprises and educational institutions. This will be realized by taking into consideration the characteristics of population and traffic movements during rush hours in order to avoid traffic congestion. In addition, the government will introduce a new taxi system by arranging parking places at shopping centres, hotels and various congested areas. The government will also speed up the completion of the expressway and rapid transit system.

(2) Improve the taxation system on personal vehicles by developing a progressive tax rate structure which is based on the amount of energy consumed in order to encourage the use of smaller cars and public transportation which are less energy consuming. In addition, the government will be stringent in the extension of vehicle licenses for old and run down vehicles in order to consume less oil.

(3) Encourage the use of the government's communication and telecommunication system for example telephone and telegram by improving service efficiency, thus facilitating the use of these services in order to avoid direct contact between persons.

(4) The State Railway of Thailand is to improve the transportation of goods to yield faster and more adequate services in order to increase the use of rail transportation which utilizes less energy than other forms of over-land transportation.

(5) Improve the water transportation system for goods and passengers which is the least energy consuming mode, particularly for those areas in the central plain which have major rivers suitable for transportation routes, i.e., the Chao Phya river, the Bangpakong, and Tachine rivers, and those in the coastal areas. To achieve this, the government will invest in the dredging of waterways and shallow river deltas, in the construction of harbours for passengers and goods, and in riverside warehouses.

b. Manufacturing industry

(1) Any factory or manufacturing activity which utilizes 500 kilowatts or more of electricity, or more than 1,000 kilo litres of all forms of petroleum products per year and/or more than 1,200 tons of coal per year, must collect statistics and details on energy production and utilization at each stage of the production process, and report monthly to the National Energy Authority and the Ministry of Industry. The following informations will be required:

(1.1) Type, quantity, characteristics, and price of energy produced or consumed.

(1.2) Type and quantity of energy utilized by each kind of appliance.

(1.3) Quantity of energy or amount of heat energy utilized per unit of output.

(1.4) Details on installation, adaptation or alteration of various appliances connected with energy consumption.

(2) Factories which produce or consume energy as described above must send annual reports and details on energy production, and various energy conservation measures taken to conserve energy to the National Energy Authority and Ministry of Industry which are responsible for energy conservation as follows.

(2.1) Past statistics of energy utilization of the factory.

(2.2) Future energy production and consumption plan of the factory.

(2.3) Annual energy conservation measures and the result of the factory's past energy conservation measures.

(2.4) Expected future energy conservation plans to be implemented by the factory with the necessary explanations.

Each factory is responsible for sending correct information as required.

(3) The National Energy Authority and Ministry of Industry are to establish a mobile energy conservation services unit to advise factories on methods for improving energy conservation, and to collect and evaluate data which will improve energy conservation efficiency in factories in order to attain the targets.

(4) Extend credit to those factories willing invest in the improving their operation for energy conservation purposes. Such credit facilities will be implemented by the Industrial Finance Corporation of Thailand and financial institutions. Tax rates and charges on materials which are used in conserving energy in the manufacturing industry will be improved.

(5) The Board of Investment must take into consideration energy conservation as a factor in granting investment promotion privileges.

(6) Determine a standard of energy utilization for each type of manufacturing factories as a yard stick in comparing energy consumption efficiency of each factory. A factory which attains the standard may receive certain privileges, for example, an extension of time for effecting income tax payments, a lower rate of taxation, or an achievement certificate.

(7) Seminars or conferences between government agencies and managers of industrial factories will be held to consider appropriate cooperation and coordination measures in the field of energy conservation, including improvement, study and analysis of various methods which will conserve energy in the industrial sector.

c. Campaign to adjust social values in energy conservation.

- (1) Add energy and energy conservation to the syllabus at all educational levels.
- (2) The Department of Public Relations and the mass media are to undertake campaign to create an energy conservation habit for the general public.
- (3) Encourage the transfer of energy conservation technology to government and private agencies.
- (4) The National Energy Authority will closely and continuously monitor and evaluate energy conservation measures and report to the government whether such measures are attaining the targets of energy consumption and conservation.
- (5) Provide more information for the general public on various changes and movements in the energy market in order to mobilize future cooperation for conserving energy.

4.2.2 Improvement of the energy pricing structure

- (1) The government will determine energy prices such as petroleum products, natural gas, lignite and electricity to reflect the true economic cost of energy without any form of subsidy from the government.
- (2) Adjust energy prices in the way that will encourage conservation
- (3) Adjust energy prices in order to provide an adequate amount of revenue for investment in energy development so that there will be no burden imposed on the government budget.
- (4) Adjust energy prices in order to reduce disparities between different forms of energy; for example, between prices of benzine and diesel, and between prices of benzine and cooking gas. The following measures will be adopted:
 - (4.1) Every time the price of oil in the world market rises causing the cost of domestic oil products to increase, the government will be required to increase the local price of oil and, in so doing, should not provide subsidies from the budget in order to assure that the price of oil reflects its scarcity value.
 - (4.2) At each oil price adjustment, the government must reduce price differentials by reducing them a little at a time in order to avoid drastic changes. Simultaneously, the pricing structure will be adjusted towards the long term structure by studying and analysing industrial production costs, the effect of oil price increases, oil tax structure, etc.
 - (4.3) Determine the price of natural gas which is used as fuel at a similar level to the price of substituted energy.
 - (4.4) Equalize all categories of electricity rates for manufacturing industry and businesses in all parts of the country in order to encourage the decentralization of economic activities to provincial areas.
 - (4.5) The government will publicize facts connected with energy, particularly oil, to the general public in order to create a better understanding and prepare the general public to cope with changing energy situations.
- (5) promote studies and conduct research connected with the pricing of all forms of energy for use in the formulation of long term energy consumption plan.

4.2.3 Accelerate the exploration and development of various indigenous sources of energy to replace oil. The government and private agencies are to speed up the exploration and development of indigenous sources of energy in accordance with the targets.

a. Petroleum exploration

(1) The Department of Mineral Resources and other relevant agencies will promote and speed up the exploration work of private concerns which have received petroleum exploration concessions both onshore and offshore in accordance with commitments.

(2) The Defence Energy Department will accelerate the exploration and development of petroleum deposits at Fang and reserve areas at Chiangmai, Lampang, Phrae, and Chiangrai by increasing government funds for the operation and by implementing joint explorations with the private sector.

(3) The National Energy Authority, Department of Mineral Resources, the Petroleum Authority of Thailand and the Defence Energy Department are to jointly study and analyse information to formulate a government exploratory area extension policy.

b. Development of natural gas in the Gulf of Thailand. The Petroleum Authority of Thailand, the Department of Mineral Resources and other relevant organizations will promote the development of natural gas in the Gulf of Thailand towards the targets.

c. Lignite exploration and development

(1) The Department of Mineral Resources and other relevant agencies are to explore lignite deposits all over the country in order to seek and increase lignite reserves.

(2) The Electricity Generating Authority of Thailand is to speed up the development of lignite deposits in order to increase its use in electricity generation.

(3) The National Energy Administration and other relevant agencies are to undertake studies and conduct research on substituting lignite for oil in the manufacturing industry.

d. Exploration and development of water resources for electricity generation.

(1) The Electricity Generation Authority of Thailand is to speed up the exploration and development of water resources for electricity generation, and formulate plans and remedies for environmental effects from water resources development with other relevant agencies.

(2) Encourage the exploration and development of small scale water resources, known as mini-hydro, which are appropriate according to economic or security reasons, for electricity generation.

e. The Petroleum Authority of Thailand is to complete the construction of the gas separation plant in accordance with the target.

f. Promote the private sector to invest in the development of the petrochemical and chemical industries by using various products obtainable from the gas separation plant as raw materials.

g. Exploration and experimentation of energy production from oil shale.

(1) The Electricity Generation Authority of Thailand, the National Energy Authority, Department of Mineral Resources, and other relevant agencies are to study, formulate a plan and conduct an experiment for generating electricity from oil shale.

(2) The National Energy Authority, the Department of Mineral Resources, the Petroleum Authority of Thailand, the Defence Energy Department and other relevant agencies are to study, formulate a plan and conduct experiments for extracting oil shale.

(3) The National Environmental Board will study and establish environmental standard for electricity generating plants which use oil shale as fuel and for factories which extract oil from oil shale.

h. Nuclear exploration and development

(1) The Department of Mineral Resources is to explore for uranium deposits in order to find additional reserves as well as exploring for deposits of monazite.

(2) The Office of Atomic Energy for Peace is to experiment with the production of yellow cake from monazite and uranium found in Thailand.

i. Exploration and development of geothermal energy.

(1) The Electricity Generating Authority of Thailand, the Department of Mineral Resources and the National Energy Authority are to jointly explore for sources of geothermal energy in the North in order to find potential sources sufficient for the generation of electricity.

(2) The Electricity Generating Authority of Thailand will then proceed to generate electricity from these sources.

4.2.4 Promote research, development, production and utilization of non-conventional energy, sources.

(1) Government agencies and relevant educational institutions will be encouraged to conduct research and develop non-conventional energy, such as solar energy, wind energy and biomass. The government will allocate sufficient funds for this purpose in accordance with the determined plans and targets.

(2) The National Energy Authority and other relevant agencies are to explore and carry out a pre-investment feasibility study in order to develop the production and utilization of non-conventional energy in the country. International cooperation will be sought and the government will allocate sufficient funds and manpower consistent with the development of other sources of energy.

(3) The Ministry of Industry, the Ministry of Finance, the Board of Investment and other relevant agencies will encourage and promote the production and utilization of new and commercially viable non-conventional energy and/or non-conventional energy which helps conserve energy. Various measures will be implemented, for example the determination of a standard for energy appliances, the use of fiscal and monetary measures to provide incentives for producers and consumers to invest and use newly discovered non-conventional energy.

4.2.5 Improve oil purchasing methods, oil exploration, and expand refining capacity.

a. Diversify the sources of crude oil and petroleum products by the following methods:

(1) Make long term oil contracts with stable and economical sources.

(2) The Ministry of Foreign Affairs, the Ministry of Commerce, the Ministry of Agriculture and Cooperatives, and the Petroleum Authority of Thailand will jointly seek oil by using rice and food as bargaining power.

b. Reserve crude oil and petroleum products for crisis periods. Total reserves must be adequate for at least 60 days through adopting the following measures:-

(1) Each oil refinery is to reserve oil at an average level equivalent to 35 days of its daily refining capacity.

(2) Oil companies or refineries will reserve petroleum products amounting to 25 days of their daily sales.

(3) The Petroleum Authority of Thailand is to reserve crude oil and petroleum products according to the needs of the government, state enterprises and the military by constructing oil reserve tanks at various important locations throughout the country.

(4) Promote the need for, an agreement on the building up of oil reserves among ASEAN countries for the benefit of ASEAN's energy stability.

c. Expand and/or construct local oil refineries in accordance with the planned targets in order to increase refining capacity to satisfy local requirements. The size and refining methodology must yield the maximum economic and national security benefits. The government, the private sector and/or public and private sectors will invest in this project.

4.2.6 Implement environmental conservation measures to remedy the effects of energy development programmes on energy production and consumption activities. The production and consumption of energy from local agricultural and industrial wastes or other wastes will be encouraged.

4.2.7 The improvement of the national energy management system.

a. Encourage the restructuring of those government agencies directly responsible for energy to come under one single command.

b. Study, analyze and formulate strategies for the improvement of the country's energy-related agencies into a more systematic manner as follows:

(1) Improve the work of committees and/or subcommittees connected with energy in order to avoid overlapping. The National Energy Authority is to act as the secretariat of energy committees and/or subcommittees in order to provide continuity and efficiency for the work of each committee and/or subcommittee.

(2) Improve the role of the National Energy Authority by placing greater emphasis on policy formulation, planning and coordination of the national energy plan, and by reducing its role in the actual operation of project construction.

(3) Speed up the consideration for merging the two electricity distribution agencies into one agency, thus enabling the development of the same electricity rate structure for the capital and its outlying regions. In addition, this will increase management and distribution efficiency.

4.2.8 Develop personnel in the energy sector to create knowledge and skills in exploration, research, and planning of energy production and consumption development. The Ministry of Education and State University Bureau are to improve the educational syllabus in order to produce personnel for the energy sector consistently with the rising manpower requirement. Meanwhile, there will be trainings to exchange and transfer knowledge and experience in energy development, and research work on various forms of energy will be promoted.

4.2.9 National Energy Master Plan is being prepared by the National Energy Authority and will be completed by the beginning of 1982. The plan is to be used in the formulation of the country's long term energy management policy. The National Energy Authority, the National Economic and Social Development Board, the Petroleum Authority of Thailand, the three electricity authorities and other relevant agencies will study and formulate energy supply/demand plans consistent with the national energy master plan.

CHAPTER 7

TRANSPORTATION AND COMMUNICATION RESTRUCTURING PROGRAMME

1. Summary of past development in the transportation and communication system.

During the past 20 years from the beginning of the First Plan period until the present, the government has developed and expanded the country's transportation and communication system in order to facilitate production and marketing and extensively diversify economic activities and development benefits to provincial areas. Government efforts have been primarily directed at the development of the overland transportation system particularly, roads, since they serve as a convenient and fast form of basic transportation service. A heavy emphasis was thus placed on road transportation because at that time the country was in the "cheap oil era". Furthermore, investment in the expansion of the country's road network has had a geographical advantage over other forms of transportation, especially water transportation, which has geographical and physical limitations, for example, in the Northeast and the Upper North.

As a result, the road transportation network has expanded rapidly from 8,500 km of road in 1961 to 104,000 km at present. This consists of 14,000 km of national highways, 30,000 km of provincial highways and 60,000 km of local and rural roads. During the same period, the rail transportation system has barely expanded from the original system, and at present, the railway network only totals to 3,800 km. The past development of the rail transportation system emphasized primarily improving the efficiency of existing services. However, it still cannot compete with the road transportation system.

Inland water transportation, which used to be the country's chief form of transportation in the old days, has become less important during the last 20 years since the government has not adequately invested in the rehabilitation of the water transportation system. This is indicated by the fact that at present the total length of canals and rivers in the country totals 5,900 km of which only 1,000 km is usable throughout the year. Coastal transportation, which amounts to 2,700 km of coastline, has not been sufficiently utilized in transportation and cannot fully compete with the road transportation system. This is because there is only one international commercial port, namely the Bangkok port which has already reached full capacity and has limitations in taking large ships. In addition, the country's merchant marine fleet amounts only to 300,000 dwt and most of the ships are out dated and old, resulting in the dependence on foreign ships for 95 per cent of exports and imports.

Though the number of users of air transportation is limited, it is nevertheless playing an important role in promoting the domestic tourist industry and is likely to become increasingly important in the future. Therefore, the domestic air transportation network has been rather well developed with regular flights between more than 20 major urban centres. The international air transportation system is also well developed, but the national airport is rather congested when compared with those of neighbouring countries. In the long run this may cause Thailand to lose its position as the centre for commercial flights in this region of the world.

As for the communication system, which can help in reducing unnecessary journeys, the basic communication services have already been adequately developed, i.e. postal and telegram services. However, telephone services still cannot satisfy the rapidly expanding requirement in large communities, particularly in Bangkok despite an increase in telephone numbers from 83,000 numbers in 1966 to 480,000 numbers at present. Other forms of communication like satellite communication and submarine cable are likely to play increasingly larger roles in the future in international communication. The government has already started to develop an international communication system during the Fourth Plan period.

In summary, the development of the transportation system was based on "cheap oil", resulting in a rapid expansion in the construction of the road networks throughout the country. Thus, road transportation has become the main form of transportation while rail and water transportation have been neglected and thus, have become secondary modes of transportation. This is evident from the allocation of the Fourth Plan's communication development budget which amounted to 15 per cent of total development budget. Most of the communication development budget (or 86.6 per cent) went to overland transportation development programmes and 90 per cent of this amount was allocated for road construction. Only 3.4 per cent, 8.3 per cent and 1.7 per cent of the development budget were allocated to water transportation, air transportation and communication, respectively. Therefore, during the Fifth Plan period which is the "expensive oil era", it will be necessary to restructure the transportation and communication development strategies to be consistent with the energy situation and to create a more balanced transportation system, i.e. between road transportation, rail transportation and water transportation.

2. Issues

The above situation in transportation and communication development is sufficient to indicate key issues in the existing structure of the transportation and communication system which could be summarized as follows:—

2.1 Imbalance in the structure of the transportation system due to too much emphasis on road transportation. The road transportation uses three times as much energy as rail or water transportations. The total amount of goods transported in the country is about 93 million tons with 85 per cent of these using the road transportation system, nine per cent and six per cent using the rail and water transportation systems, respectively. According to 1978 statistics, the passenger transportation totalled 90,000 million persons-kilometres with 93 per cent of these using road transportation and only 6.7 per cent and 0.3 per cent using rail and air transportation, respectively.

Furthermore, the government's past investment policy in the development of the transportation system primarily subsidized road users as evident from the fact that the total amount collected from tolls, the transportation oil tax and the vehicle tax is very small when compared with annual road construction and maintenance costs. As for rail and water transportation, users had to pay the full price of the services with very little subsidy from the government. This has created intermode distortion and an imbalance in the demand for the three transportation services. The general public favours the use of road transportation because it is cheap and convenient. Thus, this inappropriate mode of transportation has been encouraged. In addition, the oil price structure has always been distorted, particularly the price of diesel is cheap, resulting in inefficient and wasteful transportation activities.

2.2 Structure of the transportation system is energy intensive and inefficient. The transportation sector consumes about 42 per cent of total petroleum consumption. This is very high when compared with other countries' transportation systems which do not use more than approximately 25 per cent of total petroleum consumption. Thailand's transportation structure is still incompatible with the country's energy situation and needs to be improved to make it more efficient and less energy consuming than in the past in accordance with the country's future energy situation.

2.3 Traffic congestion in the Bangkok Metropolitan area and other large cities. Since the country's transportation structure relies mainly on the use of road system which tends to radiate around the Bangkok Metropolitan area and other large cities. Thus, traffic congestion increases as one approaches the country's largest urban areas. In addition, the growth of urbanization particularly in and around Bangkok has increased the number of vehicles very rapidly particularly private vehicles, indicating an absence of a good and efficient mass transport system. This has resulted in increasingly heavy traffic congestion in the Bangkok Metropolitan area and the problem is now spreading to other urban centres like Chiangmai and Nakornratchasima. Traffic congestion in these urban centres has created heavy losses for the overall economic system in terms of the unnecessary waste of oil fuel, loss of time, and other hidden costs. According to statistics, the consumption of oil fuel in the Bangkok Metropolitan area is six times that for other regions, indicating that the problem of heavy traffic congestion is directly related to the present transportation structure.

2.4 Legal problems and slackness in law enforcement connected with transportation and communication.

It is vital to improve the law in accordance with changing technical developments. For example, a special tax should be imposed on 10-wheel trucks according to the weight of the axle for road maintenance purposes since these trucks damage roads at 10,000 times the rate of private vehicles. However, the most important point is the slackness in law enforcement as evident from the undisciplined behaviour of passenger vehicle and truck drivers who break the law constantly. As a result, the loss of lives and property from road accidents has risen rapidly from 8,723 cases to 23,120 cases per year during the period 1971-1979, or at an annual rate of 20 per cent. The number of lives lost increased from 9,700 to 30,000 per year or at an annual rate of 26 per cent. Furthermore, road accidents are likely to do increasingly more damage to lives and property. Therefore it is vital to strictly enforce the traffic law and regulations as this will help to reduce losses of lives and property and also increase energy consumption efficiency in the transportation system.

2.5 The management of the present transportation and communication system still lacks a central body to act as a centre for statistical and information collection, planning, coordination and monitoring of plan implementation in such a way that will create the maximum efficiency for the economy for each mode of transportation and communication, and be timely thus, compatible with the changing energy situation. These problems have occurred in nearly all development sectors. But, when considering that the government has spent more than 10,000 million baht each year in the construction and maintenance of the transportation and communication system, it is clearly essential to solve the problems of the management of the country's transportation and communication system during the Fifth Plan period by seriously restructuring it.

3. Targets

In order to restructure the transportation and communication system in accordance with the Fifth Plan's main objectives of increasing energy consumption efficiency and foreign exchange earnings from merchant marine activities in order to alleviate the external trade deficit, targets for the restructuring of the transportation and communication system have been formulated as follows :—

3.1 Targets for the development of land transportation

3.1.1 Highways

During the Fifth Plan period, the construction of highways will be slowed down except for rural roads, but emphasis will be placed on the rehabilitation and maintenance of existing national and provincial highways. In addition, the government will collect tolls, vehicle tax and oil taxes (for transportation purposes) to be used for the development and maintenance of highways as much as possible in order to make them self-financing based on user charges. Road users will have to pay for services at a rate which is appropriate and fair to other forms of transportation such as rail, water, and air which have always been self reliant with very little government subsidy.

3.1.2 Road transportation

(1) Construct bus terminals in 40 provincial centres and in 12 districts which are road transportation centres in order to improve the public transportation system.

(2) Construct four suburban goods terminals in Bangkok and in each of the three major regional urban centres, namely Chiangmai, Khon Kaen and Songkhla (Haadyai) in order to reduce urban traffic congestion and improve the efficiency of the road freight transportation system.

3.1.3 Traffic in the Bangkok Metropolitan Area

(1) Construct another expressway and at most two lines of mass transit system (electric trains) in order to alleviate traffic congestion in the Bangkok Metropolitan Area.

(2) Construct another three bridges across the Chao Phya river at Nonthaburi, Pathumthani and between Nonthaburi and the mouth of the Chao Phya river.

(3) Construct roads and regulate the traffic system in the Bangkok Metropolitan Area so as to promote road transportation in Bangkok and with other cities and consistent with other forms of transportation.

3.1.4 Rail Transportation

Expand rail transportation services by 10.3 per cent per annum on average (Fourth Plan's increase was 6.8 per cent per annum) in the following ways.

(1) Increase the number of passengers from 74.3 million persons/year (or 8,861 million person/km) in 1980 to 117.6 million persons/year (or 16,600 million person/km) in 1986.

(2) Increase the amount of goods transported from 6.30 million tons/year (or 2,942 million tons/km) in 1980 to 13.0 million tons/year (or 5,694 million tons/km) in 1986.

(3) Increase rail transportation capability by improving lines, bridges, station capacity, and build double lines and elevated lines. (The State Railway of Thailand must carefully study the appropriateness and comparative advantages of constructing these facilities, especially for elevated lines.) In addition, more signals will be installed to control the amount of traffic in order to ensure safety. Finally, another 97 large and small diesel locomotives, 624 passenger carriages and 2,557 merchandise carriages will be acquired.

(4) Explore and construct new lines in order to satisfy future requirements.

3.2 Water transportation

Water transportation is to increase by 5.4 per cent per annum.

3.2.1 Domestic inland water transportation

(1) Increase the amount of goods transported by inland water transportation from 1,549,000 tons in 1978 to 2,200,000 tons in 1986 (excluding construction materials), representing 17.5 per cent of total goods transported.

(2) Development inland water navigation channels in the Chao Phya river from Bangkok to Nakornsawan and in the Nan river from Nakornsawan to Taphan Hin in Phichitr. These channels are to be completed with three years.

(3) Construct inland water transportation goods terminals at Nakornsawan and at Taphan Hin district, Pichitr province for use as inland water transportation centres.

(4) Construct barges and pushers as demonstration examples for the general public on the use of water-ways in the Chao Phya and Nan rivers.

3.2.2 Coastal transportation

(1) Increase the amount of goods transported along the coast from 557,000 tons in 1978 to 1,056,000 tons in 1986 (excluding construction materials) representing 8.4 per cent of total goods transported in the country.

(2) Construct coastal ports and facilities at Pattani, Krabi and Pak Phanang district, Nakorn Srithammarat province in order to promote the use of an efficient coastal transportation system.

(3) Dredge and improve Ban Don and Pattani waterways into permanent waterways within three years.

(4) Dredge 13 coastal waterways in order to alleviate immediate problems.

3.3 International marine transportation and merchant marine activities.

(1) Expand the transportation of merchandise exports and imports by Thai ships at an annual rate of 15 per cent. The proportion of goods using Thai ships will rise from five per cent of exports and imports volume using ocean transportation at present to 10 per cent in 1986 with the size of the merchant marine fleet expanding by 358,000 dwt.

(2) Design and construct a permanent merchant marine training centre. Then, design and construct training boats for merchant marine students.

(3) Develop the Sattahip deep sea port in the Eastern region. Construct and complete deep sea ports at Songkhla and Phuket.

(4) Expand and improve the state enterprises' merchant marine fleet.

(5) Open new shipping routes which have no Thai ships at present, particularly the American and Australian routes.

(6) Promote and encourage investment in the development of ship repair yards for 20,000 dwt ships.

(7) Produce personnel for merchant marine activities on land at the university or pre-university levels in the fields of shipping business, economic of marine transportation, port management, shipping mechanic and navy architecture to adequately satisfy requirement of the country's merchant marine activities.

3.4 Air transportation

(1) Increase domestic air transportation activities and air transportation industry by 10.5 per cent per year (Fourth Plan's growth: 9.8 per cent) by purchasing two additional Boeing 737's, improving and expanding another three international airports in provincial areas, i.e., Chiangmai, Haadyai and Phuket, and developing Phitsanulok and Khon Kaen airports to be capable of receiving Boeing 737's.

(2) International air transportation. Another Boeing 747 and three more airbuses will be purchased.

(3) Develop and complete the Don Muang Airport expansion and prepare for the construction of the second Bangkok international airport.

(4) Develop a widebody maintenance centre.

(5) Install various meteorological instruments in order to provide accurate and efficient flight weather information services.

3.5 Telecommunication targets

Expand telecommunication services by 10 per cent per year (Fourth Plan increase: 8.9 per cent) through the following methods:

(1) Establish another 500 post offices and add 5,000 post boxes.

(2) Increase domestic telephone services to 2.95 telephones for every 100 persons

(3) Expand international telephone service by installing a 1,000 circuit S.P.C. telephone exchange system in Bangkok and 100 circuit S.P.C. systems in provincial areas.

(4) Increase telegram and telex services by establishing a thirty-two circuit automatic telegram transfer centre for provincial areas and by expanding telex services to all provinces, totalling 720 in all.

(5) Expand Radio communication services. Radio network in each locality is to be increased from 100 numbers to 200 numbers during the subsequent year.

(6) Seek a modern air traffic control radar system and an aeronautical radio communication system in place of existing systems.

4. Strategies and measures

In order to successfully proceed according to the Fifth Plan's target of restructuring the transportation and communication system, the following strategies and measures have been formulated:

4.1 Strategies

(1) Improvements in the structure of the domestic transportation system is to be improved to produce a more balanced system is to be achieved by reducing the importance of road development and increasing the importance of rail and water transportations development. This will improve the efficiency in the consumption of energy.

(2) The taxation system and various transportation pricing policies will be adjusted to facilitate the restructuring of the transportation system, thereby producing a more balanced and self-financed system, thus reducing subsidies from the government.

(3) The traffic system in various cities, particularly for the Bangkok Metropolitan Area will be improved in order to reduce economic losses.

(4) The private sector will be encouraged to play a greater role in investing and developing the country's transportation and communication system.

Each mode of transportation and communication has the following strategies.

4.1.1 Land transportation

a. Road transportation

(1) The construction of main highways will be slowed and more emphasis will be placed on rural roads and road maintenance. In addition, the government will promote the more efficient use of roads.

(2) The government will formulate an efficient cargo transportation system and will improve the efficiency of various facilities.

(3) The problem of traffic congestion in the Bangkok Metropolitan Area and other cities will be alleviated in both the short and long run by promoting the development of public transportation in order to reduce the use of private vehicles.

b. Rail transportation

(1) The efficiency of rail transportation will be improved to adequately meet future requirements and to be able to carry a larger number of passengers.

(2) The private sector will be encouraged to invest in the provision of facilities related to rail transportation, enabling it to compete with road transportation.

4.1.2 Water transportation

(1) Inland water transportation and coastal transportation will be expanded, including the development of harbours.

(2) The government will develop merchant marine activities by expanding the merchant marine fleet, opening new shipping routes and by providing more privileges to Thai merchant marine activities.

(3) The government will consider the amendment of various laws, regulations and measures connected with the merchant marine business in order to increase flexibility and encourage the private sector's participation in merchant marine activities.

(4) The ship repair and construction industry in Thailand will be promoted. In the initial stage, there will be a ship repair yard which is capable of repairing large Thai Ships and serving as the catalyst for developing ship building industry in future.

(5) Deep-Sea ports will be constructed in the Eastern region and the South in order to conform to the expansion of foreign trade and distribution of economic activities to provincial areas.

4.1.3 Air transportation

The domestic and international air transportation and industry will be expanded and improved to provide safety and meet future demands.

4.1.4 Communication

(1) All forms of communication will be consistently developed in order to reduce travelling and conform with the government's policy of distributing income and decentralizing economic activities to provincial and rural areas.

(2) The private sector will be encouraged to participate in the investment and production of telecommunication equipment to adequately satisfy demand.

(3) The government is to provide an efficient aeronautical radio service compatible with the requirement of air transportation operators.

4.1.5 Other policies

(1) The government is to study the prices of various services connected with transportation and communication. Prices should reflect reality and provide equal justice to both producers and users.

(2) The government will promote the use of various forms of energy in the transportation system to replace diesel and benzine in order to reduce the trade deficit.

4.2 Specific measures for the transportation and communication restructuring programme.

In order to make the transportation and communication restructuring programme compatible with the key policies of the government, specific measures are as follows:—

4.2.1 Land transportation measures

a. Development of roads

(1) Every agency responsible for highway construction is to construct roads according to the highway network programme by specially emphasizing road maintenance and the strict control of excessively heavy trucks.

(2) The government will emphasize rural roads within rural areas and those between rural and urban areas. The government will also speed up the construction of roads in rural agricultural intensification areas and roads in industrial development areas to interconnect with the national road network.

(3) A road construction master plan is to be formulated consistent with programmes and development activities in other sectors.

(4) The government is to accelerate the formulation of regulations concerning goods transportation by roads in order to reduce excessive competition and increase efficiency in petroleum consumption.

(5) Cargo terminals are to be established in the suburbs of Bangkok (Rangsit, Bangna, Bangkae and Yannawa), and at regional urban centres. A road network will be constructed in the Bangkok area to join with the ring road system.

(6) The government is to formulate regulations and establish bus routes to be consistent with changes in the population settlement pattern. Furthermore, bus terminals will be established throughout the country to provide convenient services for users. The location of each bus terminal must conform to each province's land use plan and town plan.

(7) Studies on the use of trucks will be undertaken to find a suitable method of formulating regulations for trucks.

b. Traffic development in the Bangkok Metropolitan Area.

(1) According to the Structural Plan for the Development of the Bangkok Metropolis and vicinity, the government will have to clearly rank the priority of various programmes and development projects, particularly the use of land to facilitate the improvement of traffic in the Bangkok Metropolitan Area. The following measures will be introduced:--

- Formulate policies and measures to diversify industrial activities outside Bangkok.

- Prepare community development programmes within the major urban areas and suburban communities consistent with the polycentric concept, i.e, creating several community centres.

- Decentralize government agencies and activities outside Bangkok such as educational institutions, hospitals, military installations, etc.

(2) Encourage the general public to use public transportation services by implementation the following measures:

- Promote the construction of express ways in accordance with the master plan. The private sector will be encouraged to invest in the construction and operation of the electric mass transit system. Subsidies are not to be provided by the government.

- Improve the efficiency of the public road transportation system.

- Formulate a traffic system which facilitates public transportation services and increases service capacity.

- Implement measures to slow down or limit the use of personal vehicles by increasing oil taxes and/or vehicle taxes, collecting tolls on certain roads, and by charging entrance fees for certain inner-city zones.

(3) The government will develop a planning policy to efficiently implement measures and enforce the traffic laws. The Office of the Committee for the Management of Road Traffic and the Policy and Planning Office of the Interior Ministry will be assigned to implement this policy.

- Train personnel connected with traffic planning.

- Improve and update relevant traffic regulations and other laws, and enforce them.

- Educate and inform students, and the general public about traffic.

— Establish district traffic courts and revise relevant traffic laws in order to speed up the consideration of traffic cases.

(4) Conduct study on urban transportation for the purpose of formulating a clear traffic congestion alleviation master plan. Systematically implement the master plan.

c. Development of rail transportation

(1) The government will improve the long distance passenger and freight transportation system to increase efficiency and provide sufficiently adequate services. This will be accomplished by increasing the speed and safety of trains, improving passenger services, increasing the number of passenger and freight cars, and by increasing line capacity.

(2) The government will conduct a study on the use of electric trains in order to reduce diesel consumption.

4.2.2 Water transportation measures

a. Development of inland water transportation

(1) Inland water transportation will be improved so as to be usable during the entire year. The improvement will cover the Chao Phya river, the Nan river, the Pasak river, the Tachine river (Suphan river), the Klong river, the Noi river, the Anusasanand canal and the Sarnpasamit canal. In addition, the government will improve and coordinate water transportation with road and rail transportation.

(2) The government will provide sufficient equipment for the maintenance of waterways in order to make them usable for water transportation purposes during the entire year. The private sector will participate in the investment and dredging the waterways in order to accelerate such activities.

(3) The private sector will be encouraged to use a new kind of barge which requires only 1.5 metres of water, yet will be capable of sustaining large loads.

b. Development of coastal transportation

(1) The government will dredge waterways for ships and install shipping signals along the coast.

(2) The government will construct small scale coastal ports for those coastal ships which do not exceed 1,000 gross tons in order to promote the development of rural areas. In addition, fish landing harbours and piers will be improved.

(3) The government will study the feasibility of constructing new ports and improving and expanding existing coastal ports in order to increase cargo handling capacity.

c. Merchant marine activities

(1) The expansion of the merchant marine fleet

(1.1) Promotion measures

— Meet personnel needs for merchant marine activities by relating personnel requirements to the labour market and by arranging short term training courses in the management of merchant marine activities.

— Revise various administrative procedures, regulations and laws to promote Thai shipping businesses, including the provision of various special privileges and the amendment of the law to encourage foreign investment.

— Encourage and promote the opening up of new shipping routes, for example the American and Australian routes. Encourage the use of Thai ships for container transportation and goods transportation, including the promotion of additional Thai investment in shipping businesses.

— Encourage state enterprises involved in the shipping businesses to replace old ships by more efficient new ships.

(1.2) Measures for the preservation of cargo for Thai ships.

— At least 40 per cent of the transportation of government's exports must use Thai ships. Measures will be found to assist the private sector in selling goods at C.I.F. prices. However, this measure must be accomplished in a manner that it is not be detrimental to the export trade.

— Government imports and those by state enterprises or businesses which borrow money from the government's financial institutions must use Thai ships. This shall also apply to the import of luxury goods. At least 40 per cent of imports which the government buys directly, for example crude oil and petroleum products must use Thai ships.

(1.3) Tax measures

— Provide special tax privileges for shareholders in shipping companies, ship repair yards, and users of Thai ships.

(1.4) Monetary measures

- Establish a merchant marine development fund.
- Provide financial assistance in the form of a packing credit.

(2) Ship repair and ship building industry

— Develop existing ship yards to be capable of building ships consistently with requirements and study the long term prospect of the development of ship yards. Land will be prepared for large ship yard in the Eastern Seaboard area by conducting a pre-investment feasibility study.

— Promote the construction of a 20,000 dwt-ship repair yard in order to provide services for Thai and foreign ships. The government will provide facilities including land and personnel.

(3) Sea port

— Construct deep sea ports at Songkhla and Phuket. Develop and expand the Sattahip port and conduct a feasibility study with respect to the construction of a long term deep sea port at Laem Chabang.

— Develop and improve existing sea ports by providing various equipment and facilities. Determine most appropriate price structure of various services to promote Thai ships.

4.2.3 Air transportation measures

(1) Improvements will be effected at the Bangkok International Airport (Don Muang) to meet airline service needs until 1997.

(2) Preparation work for the construction of the second international airport for Bangkok at Bangplee district, Samut Prakarn province will be started. Studies will be undertaken to formulate various plans to control and prevent various problems which may arise from this airport.

(3) The government will develop Chiangmai, Haadyai and Phuket airports into international airports consistently with the amount of future air traffic.

(4) Phitsanulok and Khon Kaen airports will be developed to be capable of receiving fully loaded medium scale jet liners on domestic flights. Ten domestic airports will be improved in order to expand capacity in accordance with the amount of air traffic during the next 10-15 years.

(5) Personnel connected with air transportation activities will be trained and produced according to the required standard and future need.

(6) The government will improve existing maintenance services by establishing a good wide body maintenance centre.

4.2.4 Communication measures

(1) The government will provide telegraph and telephone services and other telecommunication services in accordance with the future need, particularly the provision of telephone services which are still in shortage. The private sector will participate in the investment and production of telecommunication equipments in order to facilitate the expansion of telephone services.

(2) The government will accelerate the expansion of postal, telegraph, telephone and other telecommunication services to the rural area by erecting more post offices, post boxes and long distance telephone boxes in various populated areas down to the tambon level.

(3) Satellite communication and other modern communication system like optical communication will be introduced and utilized together with other forms of communication in order to increase efficiency.

(4) The government will improve and expand radio and television transmission services to the rural area, especially in the Lower South where programmes will be improved to suit the local requirement.

(5) The government will improve the communication system in order to increase international linkages by using the satellite system and underwater cable system.

(6) Communication personnel will be not only increased but trained to meet international standard and future needs.

(7) Fast and effective communication services will be provided to all government agencies.

4.2.5 Other measures

(1) The government will establish a transportation and communication planning office within the Communication Ministry (at present it only consists of the Economic and Planning Division) to act as a centre for statistical and data collection and analysis, planning and coordination with government agencies and the private sector. This will ensure the implementation of plans which are consistent and to create an optimum use of various modes of transportation and communication

(2) Prices of transportation and communication services will be increased to meet actual costs and to provide improved services. This will not only mean that such services will be self-supporting but will be able to expand to meet users requirements.

(3) Studies will be promoted on the utilization of other forms of energy to substitute for benzine and diesel in order to alleviate the trade deficit problem and reduce the demand for diesel to accord with the domestic refining capacity.

CHAPTER 8

UTILIZATION AND DEVELOPMENT OF SCIENCE AND TECHNOLOGY

1. Present state of science and technology

Science and technology is an important factor in the production process, particularly when related to the fact that Thailand's natural resources are limited and existing resources have deteriorated rapidly. Therefore, it is essential to accelerate the use of science and technology in improving efficiency throughout the spectrum of production and utilization of natural resources. This will increase productivity in the agricultural, industrial and energy sectors.

During the period of past national development plans, the use of science and technology in the development process was still limited and not adequately efficient, particularly that appropriate technology has not been extensively transferred to the rural population.

As for the industrial sector and other sectors, entrepreneurs have not sufficiently realised the use of science and technology in raising production efficiency. Most of the technology used was imported from abroad without any screening process to suit Thailand's socio-economic needs.

2. Issues

From the above description with respect to science and technology, it is clear that key issues in the use and development of science and technology are as follows:

2.1 The use of science and technology to increase production efficiency in still rather limited. For example, most of the technology used in the manufacturing sector is imported from abroad and usually does not have the highest efficiency because it is a business secret which needs to be protected in order to prevent importing countries from competing. In addition, imported technology has not been sufficiently screened, is high-cost and has many conditions attached, creating economic disadvantages, for example export is not allowed or export market is limited. The technology received is also not as most efficient as it should be. The growth of the manufacturing industry in the past mainly occurred through the growth of import substitution industry which received rather high protection. As a result industrialists did not realize the importance of science and technology in reducing production cost and raising production efficiency. Industrialists were also not interested in adapting or improving imported appropriate technology to suit conditions in the country. The country should encourage the use of more labour instead of capital, the use of local raw materials and finished products which will lower production cost and allow greater international competitiveness or improving imported technology to suit conditions in the country.

As for the agriculture sector, the rural population continues to suffer from a lack of basic scientific and technological knowledge. The extension of technology rural area is still limited; and what technology is used is not adaptable to local conditions. In addition, the majority of the rural population is rather poor and thus is unable to adequately acquire and utilize technological know-how in agriculture.

2.2 The modification or improvement of imported technology, and technological development continues at slow pace. This is because the country's scientific and technological base is weak, lacks direction, scientific and technological personnel is limited and of inadequate quality. Furthermore, current research is not of sufficiently high standards to be really useful for implementation and there is a lack of other scientific and technological support. Finally, there is an absence of essential organs and a clear scientific and technological plan which will coordinate various activities.

3. Targets

The government is to develop science and technology suitable for the use in raising agricultural production efficiency, particularly in respect to cultivation techniques, the utilization of land and water resources, the storage of agricultural goods, and techniques in substituting other production inputs. The government will develop industrial technology and mineral processing as well as technology related to the consumption and conservation of energy. Therefore, the ratio of expenditures on research and development (including the private sector) to GNP will be increased to 0.5 per cent, and it will be necessary to increase scientific and technological personnel in the above sectors by 10 percent annually.

4. Strategies and measures

In order to attain to above scientific and technological targets, it will be necessary to implement the following policies and measures:—

4.1 Strategies

4.1.1 Information on existing technology will be extensively disseminated. The government will start to screen and adapt imported technology to suit the conditions of the country. Correspondingly, it is essential that we conduct our own research and develop our own technology in order to improve production efficiency and the efficiency in the utilizing the country's natural resources.

4.1.2 The government will strengthen the country's scientific and technological base and capability by emphasizing manpower development, research institutes, technological transfer, and the establishment of a scientific and technological data and information centre.

4.1.3 Incentives will be provided for the private sector and state enterprises to extensively use science and technology in improving production efficiency. In addition, the general public will be encouraged to develop an awareness in using science and technology in everyday life.

4.1.4 The government will promote scientific and technological cooperation with foreign countries in order to exchange data and information, transfer technological knowhow, and further improve the country's scientific and technological capability.

Research and Development Budget by Sectors

Sectors	1978		1979		1980	
	million baht	%	million baht	%	million baht	%
Agriculture and irrigation	797.2	54.30	558.4	41.93	661.6	43.88
Manufacturing and mining	82.2	5.60	97.0	7.28	106.8	7.08
Trade and services	—	—	27.4	2.06	27.2	1.81
Transportation and communication	47.9	3.26	63.6	4.78	106.7	7.08
Energy	26.5	1.81	34.2	2.59	34.4	2.28
Social development	43.0	2.93	37.2	2.80	43.5	2.89
Public utilities	—	—	—	—	14.4	0.96
Health	78.4	5.34	121.0	9.09	86.7	5.75
Education	20.5	1.40	23.4	1.76	8.9	10.59
Conservation of natural resources and environment	14.9	1.01	24.8	1.86	22.2	1.47
Local natural resources development	2.1	0.14	2.0	0.15	2.6	0.17
Science and technology	101.2	6.89	97.0	7.28	82.1	5.45
National security and defence	—	—	164.1	12.32	199.8	13.25
Connected with all sectors	253.5	17.27	81.0	6.08	110.5	7.23
Total	1,468.0	100.0	1,331.8	100.00	1,507.0	100.00
Percentage of GDP	464,550.0	0.31	546,449.0	0.24	659,326.0	0.22
Percentage of government budget	81,000.0	1.81	92,000.0	1.45	109,000.0	1.38

Sources: Research and analysis of research budget of government agencies and state enterprises for the fiscal years 1978 - 80, Research Policy and Planning Division, Office of the National Research Council.

4.2 Measures and operation plans

4.2.1 Promote the survey of basic data essential to technological development in order to make technological development consistent with the national problems, users' requirements and the country's natural resource base. It is necessary to survey and collect basic data for technological development as follows:—

(1) Conduct surveys on technological problems of the country's major industries for improving efficiency particularly for the machinery industry, the agricultural machinery industry, the household appliances industry, the metallurgical industry, the agro-industry especially food processing industry, and the electronic, chemical, plastic, petrochemical and organic synthesis industries.

(2) Accelerate surveys and formulate a natural resources plan for land, water, forest and mineral resources by using satellite pictures, aerial photography, geophysical methods, etc. All these will be used in the formulation of a natural resources plan leading to more efficient use of natural resources emphasizing conservation techniques.

(3) Conduct studies on living conditions, environmental conditions, natural resources, and the special potential of certain rural areas in order to develop appropriate technology for each locality for improving production.

4.2.2 Promote appropriate foreign technological transfer

(1) Formulate a master plan to select and import foreign technology connected with manufacturing industry, and energy and goods processing by screening, selecting and adapting imported technology to be appropriate to the country's requirement. The government will provide specific training to support the technological transfer process.

(2) Establish the Technological Transfer Centre by considering the upgrading of the existing Centre, which at present is a division under the Office of the Undersecretary, the Ministry of Science, Technology and Energy, into a corporation in order to increase operational flexibility. Another alternative is to consider the establishment of this Centre under the reformed Thailand Institute of Scientific and Technological Research.

The Centre is to provide, evaluate and collect information and make proposals on foreign technological information for local businesses and industry. To this end, it is vital of the Centre to establish an information centre. In addition, the Centre must cooperate closely with the Thailand Institute of Scientific and Technological Research in adapting and improving imported technology.

(3) Formulate the necessary fiscal and monetary measures to promote the importation, adaptation and improvement of certain forms of foreign technology. For example, the government could establish a revolving fund for industries and businesses to borrow at low interest rates and for long periods in order to encourage the utilization, adaptation and improvement of certain forms of foreign technology which are advanced and appropriate for uses in industry, including industrial engineering services.

The revolving fund may be financed by loans from the World Bank and the government's budget. The Industrial Finance Corporation of Thailand will be assigned the responsibility for implementing the above strategies.

4.2.3 Increase the country's scientific and technological research and development capability.

(1) Increase and improve the country's research and development efforts by increasing the country's research and development budget to 0.5 per cent of GDP. To accomplish this, incentives will be provided to the private sector to spend 5 per cent of net

profits on research and development work by using the existing government or private research institutes.

(2) In conducting research and development work, it will be necessary to find the right balance between basic research and applied research. Research and development work must consist of a combination and coordination between these two, particularly that research necessary to adapt and improve technology in the mineral dressing and processing industry, the agricultural and processing industry, and in the utilization of agricultural and industrial wastes.

(3) Improve research management efficiency of various research institutes, which have rather low research budgets to yield higher benefits. The government will improve the capability in the selection of research projects and researchers, conduct economic cost/benefit analysis of research projects, and monitor the results of the research to determine whether they have really been used in businesses and industry.

(4) Improve research management as follows:

(4.1) Reform and strengthen the capability of the Thailand Institute of Scientific and Technological Research in order to solve technological problems for various industries. This includes its role as a leader in adapting and improving foreign technologies. The Institute is to undertake research for the private sector and closely coordinate its work with various industries.

(4.2) Consider establishing an Energy Conservation Centre to be responsible for conducting studies, providing training, publicizing data, and producing information and publications on energy consumption and energy conservation methods. Furthermore, the Centre will provide training for energy supervisors in factories, study and collect information on energy conservation, conduct research, and develop and monitor other countries' energy conservation methods. The Centre will also encourage private agencies like the Technological Promotion Association (Thai-Japan), which have already started work in this direction, to expand their activities.

(4.3) Establish an efficient Institute of Material Science and Metallurgical Engineering to provide engineering consulting services for solving problems related to the use of materials in factories; in selecting suitable materials in the production and the adaptation of foreign technology for improving metallurgical products and alloys; and for developing mineral processing technology in order to increase the value added of mineral resources. The Institute will also conduct economic studies on mining and metallurgy in order to improve the efficiency of mineral and metallurgical resources utilization. The government must either provide for a research capability in the Department of Mineral Resources or establish an institute under the already reformed Thailand Institute of Scientific and Technological Research, or under either Chulalongkorn University or Chiangmai University.

In order to ensure the smooth and efficient operation of the above institutions, which are capable of providing advice, solutions and the timely development of new technology for local business and industry, it is necessary to consider the appropriate organization and the formulation of the necessary regulations and guidelines for the efficient operation of these institutions. The institutes must have freedom and flexibility in operations, have sufficient financial resources, and have a sound environment in which to conduct their research.

4.2.4 Mobilization of manpower for scientific and technological development

(1) Conduct a survey of the country's scientific and technological personnel at the university and vocational levels according to each subject and occupational requirement. This will permit a correct evaluation of the manpower resources which could be fully mobilized.

(2) Forecast the demand and supply for scientific and technological manpower which is consistent with technological development in order to prepare for the expansion of production and the economy in both the short and long term.

(3) Improve and formulate a scientific and technological educational system at all levels by upgrading the syllabus, teaching methods, quality of the teaching staff as well as the utilization of modern and technologically up-to-date equipment.

(4) Set up a system and measures for mobilizing scientific and technological manpower as follows:

(4.1) Provide incentives for scientists and technologists in order to attract capable persons, for example by issuing permits for people with scientific and technological occupations, by establishing appropriate salaries, and by requiring private business or industries of a certain size to employ scientists and technicians who hold these permits.

(4.2) Improve the efficiency of those employment agencies engaged in employing technicians. These agencies are to more efficiently coordinate requirements between those seeking jobs, employers and training centres than at present.

(4.3) Survey and formulate a mobilization plan for top Thai scientists and technicians who are working abroad to encourage them to return to Thailand to meet the country research requirements. It is also necessary to have scientific and technological advisors stationed in developed countries in order to monitor the advances in science and technology, determine the most appropriate method for transferring technology and seek technological cooperation with these countries.

4.2.5 Improve and expand the national standard system, quality control including reference standards, metrology and calibration in order to make these services acceptable to foreign countries and to provide adequate services to assure the promotion of Thai exports.

(1) Build up the capability of the Thai Industrial Standards Institute, the Commodity Standards Division of the Foreign Trade Department and the Food and Drugs Administration to carry out standardization work, legal work and standard enforcement work.

(2) Expand the evaluation and standard testing ability work of various government and private agencies.

(3) Conduct research on standardisation, metrology and calibration of various equipment and appliances in order to raise the standard of locally produced products to an internationally competitive level.

4.2.6 Develop local engineering consultant services in order to provide consultant services to industry, businesses and the government on pre-investment feasibility studies, planning, designing and work supervision. This will lower the very high expenditures of foreign engineering consultant firms in various development projects or investment programmes.

(1) Build up the capability of local engineering consultant services to attain the same level of credibility as foreign consultants, for example, by assigning the

Governmental Board of Professional Engineering and professional societies to closely supervise the professional conduct of their members, and by formulating a programme to develop the capability of Thai consultant services. This will be accomplished by encouraging respectable foreign engineering consultant firms to participate in pre-investment feasibility studies with Thai consultants in order to increase the capability of Thai consultants and transfer technology and experience to Thai consultants.

(2) Expand the market for Thai consultants, for example by altering rules or regulations which will facilitate the use of more Thai consultant services. The government will also encourage Thai consultant firms to participate in foreign activities.

4.2.7 Improve the scientific and technological information system. Establish a National Scientific and Technological Information Centre for collecting information on science and technology, including the responsibility for selecting, summarizing, translating and publicizing information to users. The Centre must have expert personnel and modern equipment, and be capable of coordinating with other specific information centres in the country. In addition, it must have an extensive network of relations with foreign information centres which will ensure up to date information on high quality research.

4.2.8 Promote local technological transfer

(1) Improve the operations of the Industrial Promotion Department and Agriculture Extension Department in order to provide for more substantive promotional work. These two agencies are to closely coordinate their activities with other research and technological development institutes.

(2) Provide financial and other related assistance to professional groups, societies and universities so that they can extend and relate their technical assistance to various occupations requiring such assistances.

(3) Operators of businesses involved in the purchasing and marketing of agricultural materials, agricultural products and handicrafts will be encouraged to play a greater role in providing assistance in raising professional standard especially in rural areas.

4.2.9 Improve the formulation of science policies. Establish a Science and Technology Board with the Prime Minister as chairman, with qualified members drawn from both the public and private sectors. The Board will consistently formulate policies and operational plans consistent with national development efforts in other directions; promote and coordinate work; monitor and evaluate scientific and technological developments; and provide advices to the Prime Minister on science and technology policies.

4.2.10 Promote scientific and technological cooperation with foreign countries. Formulate a plan for scientific and technological cooperation with foreign countries by emphasizing the following: reforming the Thailand Institute of Scientific and Technological Research; improving the capability of the Technological Transfer Centre, establishing the Energy Conservation Centre and the Institute for Material Science and Metallurgical Engineering; developing a revolving fund to promote technological utilization and development; and formulating appropriate studies. In addition, the government will encourage institutional collaboration, and promote joint development and research programmes and training programmes for technical personnel.

4.2.11 Encourage the general public to become more interested in science and technology. The government will undertake public relations program for the general public to further educate and inform them in matters related to science and technology. This will be accomplished by promoting the activities of the Science and Technology Museum, arranging seminars and sponsoring technical conferences.

PART IV

SPECIFIC AREAS
AND URBAN DEVELOPMENT

CHAPTER 1

INTRODUCTION

The economic growth pattern during the past twenty years has indicated that interregional and rural-urban disparities have increased. The majority of economic activities have been heavily concentrated in the Central region, particularly in the Bangkok Metropolitan areas, whereas the Northeast and the North have had their share of production and Gross National Product reduced. At the same time the growth pattern of urbanization has become increasingly unbalanced. The size of the population and the influence of the Bangkok Metropolitan have increased at a much faster rate than other cities in the country. At the present time, the Bangkok Metropolitan has a population 50 times larger than Chiangmai the second largest city. All this is due to the problem of economic development and human settlement pattern which can be characterized as follows:-

Firstly: The regional economic and production structures still largely depend on agriculture. Industrial activities and economic services have not yet been widely dispersed to the regions. At present, most of these activities and services are concentrated in the central region, and the Bangkok Metropolitan areas in particular.

Secondly The human settlement pattern has continued to be in the form of "rural community" with more than 80 per cent of the population still living in rural areas. The past pattern of migration has been from rural to rural looking for new cultivable land or another means of living. Rural to urban migration has not yet created a major problem.

Thirdly: The urban growth is largely confined to the Bangkok metropolitan area. Other regional cities have grown rather slowly. The proportion of the urban population has been constant and is estimated at around 16-17 per cent of the total population. The unbalanced urbanization pattern, which is specifically attributable to the Bangkok Metropolitan area, is to a large extent due to industrial concentration in and around Bangkok which has become increasingly congested.

The Fifth Five-Year Plan has thus laid down spatial development strategies to diffuse growth and decentralize economic activities to the regions. In this effort, five "specific areas" and the establishment of regional urban centres have been put forward as another means to encourage the structural adjustment programmes in agriculture and industrial decentralization. The selected five specific areas for accelerated development during the next five years are the Eastern Seaboard region, the Western region, the Upper North, the Lower Northeast and the Southern border provinces. The accelerated development of these areas will also strengthen security management along the border areas. At the same time, there is also a plan to develop regional urban growth centres and low-order centres in all the regions together with the plan to develop the Bangkok Metropolitan so as to bring about more balanced growth in the "urban system" in the future. This is necessary because the urban population growth for the next ten years will be accelerated at a much higher rate. Therefore, the plan for the development of the urban system is absolutely vital for the future. Without planning, it is clear that there will be mass migration to the Bangkok Metropolitan area which will bring with the problems of congestion and deterioration of the city far more serious than experienced presently.

The development of the five specific areas and the development of regional urban growth centres in the regions and the Bangkok Metropolitan area are as follows:--

(1) **The three provinces in the Eastern Seaboard region.** Chon Buri, Rayong and Chachoengsao will be developed into "basic industrial complex" in accordance with the industrial restructuring plan during the next five years. This will curtail the concentration of industries in the Bangkok Metropolitan area. It will also link the development of the East with the Northeast in a more efficient manner.

(2) **Western Region.** There will be special attention accorded to the provinces which produce sugarcane, sugar and canned pineapples. Areas along the coast of the Western region where people are engaged in fishery activities will be rehabilitated and the declining tourist industry will be revived.

(3) **Lower Northeast and the Upper Northern regions.** The development of these areas is intended primarily to provide for the more efficient utilization and rehabilitation of land, water resources and forests in order to increase agricultural output and alleviate poverty problems along the border areas.

(4) **Southern border provinces.** The aim is to readjust the local economic structure to achieve greater diversification. The economic development of the Southern border provinces will be integrated more fully into national economic development programme which will help solve social problems as well as reinforce security management in the border provinces.

(5) **The development of regional urban growth centres and low-order centres and rural communities and the deceleration of the growth in the Bangkok Metropolitan Area.** It is intended that the urban growth centres should be able to sufficiently accommodate urban population growth in the next decade. The urban growth system will be more balanced. Cities in all the regions should serve as economic and industrial bases, whereas the role and influence of the Bangkok Metropolis will be curtailed.

CHAPTER 2

DEVELOPMENT OF THE EASTERN SEABOARD SUB-REGION

The Eastern region is considered to be the most developed in relation to all other regions. In 1979 the share of the Gross Regional Product was 13.4 per cent of the Gross National Product and grew at an annual rate of 12.4 per cent during 1975-1979. Both figures are higher than either the national or regional averages. The most productive sector of the region is industry which accounts for 30.8 per cent of Gross Regional Product. This is because the Eastern region has a number of locational advantages. The region is not very far from Bangkok. The region is next to the Northeast which furnishes the former with various raw materials and labour. It is also close to the Gulf of Thailand, which is the main gateway for foreign trade with reasonably good infrastructural facilities. It possesses good communications and transport networks and a deep-sea port. It is also the place where natural gas comes ashore. All these factors have combined to encourage private investors to carry out investments for industrial development of all kinds, from small and medium to large scales.

The locational and economic factors which are conducive to development have enabled the government to design a policy to develop the three Eastern provinces of Chon Buri, Rayong and Chachoengsao, covering 8.3 million rai of land and with a population of 1.6 million. The sub-region as a whole is to become the main growth centre and location of future basic industries by virtue of the advantages specific to it, with a deep-sea port, U-Tapao airport, natural gas, and other infrastructural networks which are better provided than elsewhere.

1. Summary of main issues.

The development of the three provinces of the Eastern Seaboard is constrained by three factors:—

1.1 There is a shortage of water for industrial use and for new communities in the future. This is not only because existing water resources are scarce but the area is also lacking in suitable land for the development of large scale water resources.

1.2 There is the problem of land acquisition in the area specified by the Cabinet to become the location for the development of basic industries. This is because land prices in this area have increased at an unprecedented rate.

1.3 The development of these three provinces must take into account the linkages between developmental activities in the Eastern Seaboard sub-region and the entire Eastern region and those between the sub-region and the Northeast and the Bangkok Metropolis. The Northeast, which is a large region and the least developed economically, must have linkages with and a share in the development of the Eastern Seaboard sub-region. At the same time, the development of the East must serve as an alternative industrial base beside Bangkok in the future as envisaged in the government's policy to diffuse growth from Bangkok as spelled out in the Fifth Plan.

2. Targets of development.

The Eastern Seaboard sub-region will be developed as a new growth centre in accordance with the policy in the Fifth Plan, which calls for systematic decentralization of economic and industrial activities to the regions. The region will be established as a centre for basic

and other downstream industries. It must be self-supporting and serve as an alternative location for future industrial growth. With this new growth centre the problems of congestion in the Bangkok Metropolitan area will be lessened. The Eastern Seaboard sub-region will become a new industrial centre and another major employment generator in the Central region. It will also serve the Northeast as a new gateway for its exports.

Target area: It is specified that the area to become the location of a new industrial complex and basic industries will lie between U-Tapao Airport and Rayong Municipality and its vicinity, covering 123,750 rai. Basic industrial activities will include a gas separation plant, and petrochemical, soda ash, sponge iron, and chemical fertilizer industries. There is also an additional land area of 2,800 rai in Laem Chabang which is designated as the location for small and medium scale industries.

3. Development measures.

3.1 The land use system in the target area will be worked out by the development of a master plan which will specify basic industrial locations and the new town between Sattahip and Rayong Municipality in accordance with existing infrastructural facilities and the future construction, both short and long terms.

(1) Short-term measures.

The structural plan of land use in the target area will be immediately drawn up to enable the prompt location of each industry, the investment of which will be expected by the government to come from the private sector. The location of the town and the main public utilities and public works must be identified in order to better co-ordinate private and public investments in a mutually complementary fashion. Investment will be made especially in the construction of basic urban infrastructures which are indispensable for the development of a new town and basic industries. Special measures will be devised to control land prices so as to encourage sensible investment. One measure will include a contingency fund to purchase land for specific industrial development.

(2) Long-term measures.

An integrated town plan of the entire target area based on the structural plan of land use system will be drawn up and a law controlling land use will be promulgated which will serve as a guideline for the responsible local administrative authorities in their work of future specific town planning.

3.2 The following measures must be adopted to attract private investment to develop basic industries:-

(1) There will be investment incentives in basic industrial projects by clearly setting out guidelines on tax privileges and the appropriate proportion of joint investment between the public and private sectors in each industrial activity.

(2) Financial resources will be mobilized from international financial institutions for private investment in the designated location.

(3) An Agency or a special authority will be established to co-ordinate investment policies so as to minimize bureaucratic delays, thus facilitating private sector investment.

3.3 Basic infrastructural facilities to support basic industries will be provided. The necessary infrastructures are as follows:-

(1) **Deep-sea port.** The Sattahip commercial port will be expanded within the boundaries specified by the Royal Decree. There will be nine more wharves to serve the

increasing volume of goods which will total about eight million tons per annum, including both bulk and general cargoes. Dredging work will be carried out in order to accommodate 120,000 ton vessels.

(2) **Water.** A study will be conducted and the design for the construction of water pipelines from Dok krai reservoir to Map Ta Phut will be completed by 1983, and to Sattahip by 1985. The volume of water flow will have to be at least 60 million cubic feet per annum. Nong-pla-lai and Ban-bueng reservoirs will be constructed by 1983. The construction of Klong-Luang reservoir will be planned subsequently. There will also be careful planning of water utilization and a survey of the suitability of other water resources in the nearby river basins for future development.

(3) **Road network.** It will be necessary to study the pattern and quantity of traffic flow between Sattahip and Rayong to be able to efficiently plan for the expansion and addition of new national highways to complement railway and seaport improvements, and future population and industrial growth.

(4) **Railway lines.** There will be a study to determine a railway line between Sattahip and Rayong, the construction of which must be completed by 1984. There will also be another study for the construction of railway lines to be completed by 1985 which will join the East with the North and the Northeast.

(5) **Electricity.** This will involve the construction of sub-stations and distribution lines in accordance with the planned industrial development and the regional urban centre by installing 230 kv. cables from Aou-Pai-Rayong to be completed by 1983.

(6) **Communications.** Planning and construction of telephone exchanges and telecommunications system will be carried out in line with the planned industrial development and the regional urban centre.

3.4 Manpower development and health care services to support private investment in the area will be provided in the following way.

(1) **Development of skilled labour.** The Department of Labour will have to improve the teaching method of the "Institute of Skill Training" in Chon Buri. The type and quantity of the trained labour will have to meet the requirements of the factories in the short run. The Vocational Education Department will be required to modify or restructure the curricula and teaching methods of all the vocational schools and colleges in the area to meet future industrial requirements. Participation from the private sector which operates the basic industries may be sought in the form of provision of training services or financial assistance for the training.

(2) **Protection and care of the workers' health and well-being.** This will be achieved by the setting up of an "Occupational Health Centre" in order to instruct the factory workers on how to take care of their health and how to protect themselves against dangers from chemicals and machinery.

3.5 Measures to control environmental pollution, soil erosion and deterioration of soil fertility will be taken.

A research study will be undertaken to determine measures, pre-conditions, and projects necessary for the control of environmental pollution which may stem from the growth of industrial activities. Human settlement pattern and the conservation of the Eastern Seaboard may well be affected adversely if precautions are not taken. In addition, there will be a programme to encourage the planting of perennial plants such as rubber trees and fruits trees instead of field crops in important watershed areas. This is meant to minimize the

effects on soil erosion and soil infertility, while at the same time conserving scarce water resources in the region.

3.6 A Master Plan for the development of the Eastern Seaboard will be prepared.

It will be necessary to study the impacts and the linkages of this development on the people in the sub-region and the entire Eastern region. The relationship between the Eastern Seaboard development and the urban development policy of the Fifth Plan will have to be determined to find a proper framework for the transformation of the Eastern Seaboard region into a major industrial complex and a new urban centre in addition to the Bangkok Metropolis. The new regional urban growth centre will be properly planned to be capable of diffusing the benefits of growth to the rural areas.

A team of consultants has been hired to carry out a study which will be used in the preparation of the Master Plan for the development of the Eastern Seaboard sub-region.

The study will recommend:-

- (1) the policies and measures considered necessary to develop basic and other kinds of industries which will be significant for the utilization of raw materials and labour in the East and the Northeast; and measures to encourage private investors to invest in the area;
- (2) the plan for the development of necessary basic economic and social services bearing in mind the maximum utilization of existing infrastructures; and a study on the appropriateness of an engineering plan and investment in new projects which will be necessary for the development of the area;
- (3) the pattern of land use in the area for agriculture, industries and town development in conformity with the development plan of the Bangkok Metropolitan Area;
- (4) the means to solve environmental problems arising from industrial development which might affect the tourist and fishing industries;
- (5) the formulation of a regional development authority essential for the development of the area.

4. Plans and Projects.

Altogether, there are eight major operations plans which involve 30 projects. They are as follows:-

Industrial promotion programme. This is a plan to encourage the private sector to invest in those small and medium scale industries which will not bring about environmental pollution in Laem Chabang area. Investment plans in various basic industrial projects around Nong Fab Map Ta Phut such as Soda ash, chemical fertilizer and sponge iron will be actively stimulated.

Development plan for basic infrastructural networks such as the Sattahip commercial port development project, and water pipeline construction plan from Dok krai reservoir to Map Ta Phut and Sattahip will be implemented.

4.3 Labour development plan. An important project under this plan is the project to develop skilled labour for industries.

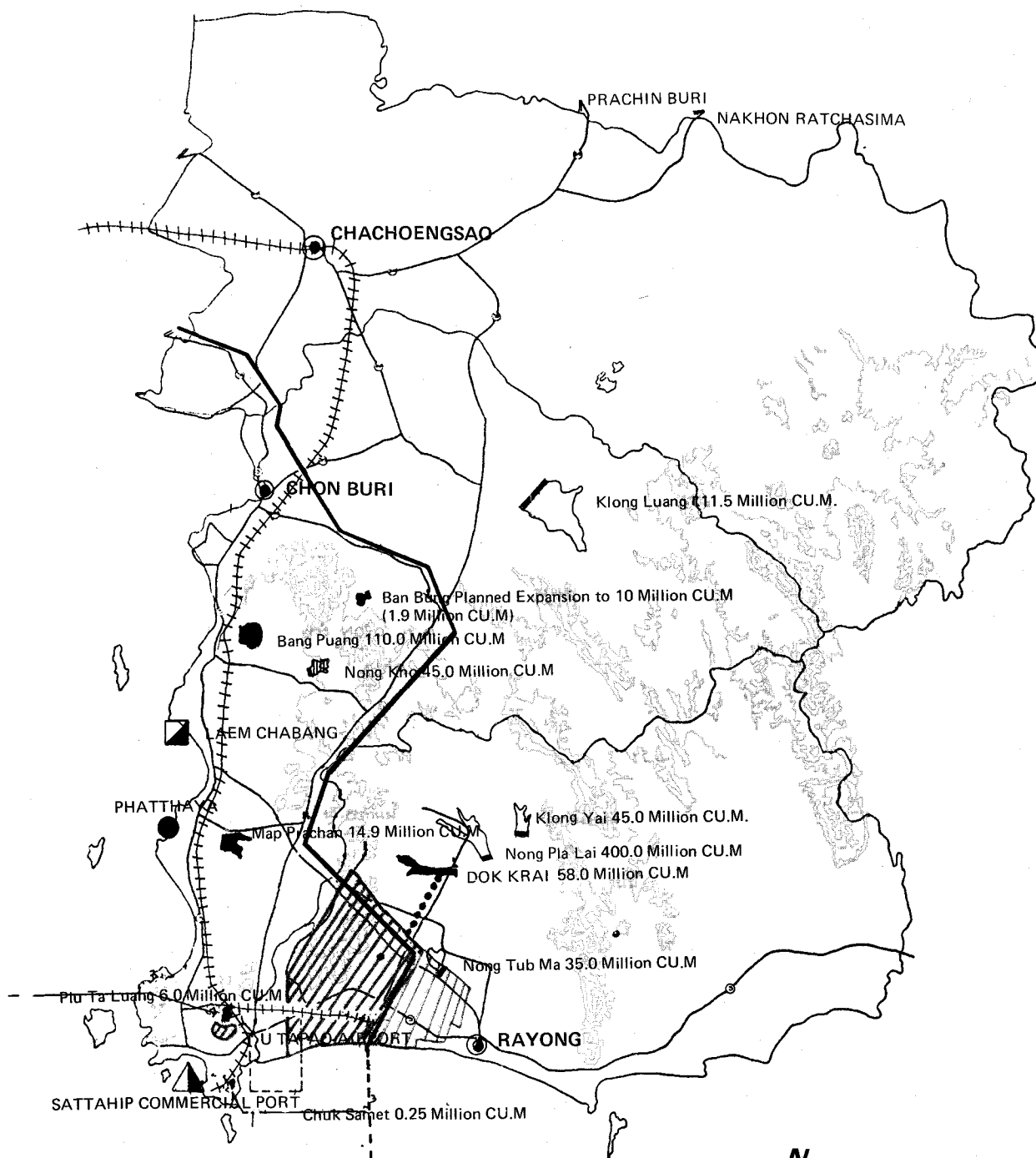
4.4 Public health programme. This calls for a project to set up a centre or an institute for occupational health in the new town area.

4.5 Urban development plan. The development of the regional growth centre of Chon Buri and the low-order centres of Rayong and Chachoengsao and the development of a new town resulting from industrial development will be included.

4.6 Plan for the conservation of natural resources and the environment will be initiated. This will comprise a project to revive the deteriorating forest conditions around watershed areas, and a project to control environmental pollution from industrial activities and the tourist industry.

4.7 Plan to improve soil erosion and soil infertility including an increase in agricultural productivity. This plan involves a project to cultivate more perennial plants.

4.8 Prepare detailed studies for Master Plan. The plan involves the Eastern Seaboard Regional Planning Study Project and a proper engineering plan of the specified projects.



Map Showing the Three Provinces in the Eastern Seaboard



Road



Track of Natural Gas Pipe Line



Reservoir Under Construction



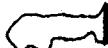
Track Showing Water Pipe Line



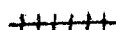
Industrial Zone and Planned Urban Complex



Reservoir Already Constructed



Reservoir Planned for Future Construction



Railway Lines

CHAPTER 3

DEVELOPMENT OF THE WESTERN REGION

The Western region comprises eight provinces. They are Kanchanaburi, Suphan Buri, Nakhon Pathom, Ratchaburi, Samut Sakhon, Samut Songkhram, Petchaburi, and Prachuab Khiri Khan — covering 28.8 million rai. The population in 1979 was 3.5 million. The region has a high potential for development, judging from the regional production which represents 11 per cent of the Gross National Product. Per capita income is as high as 10,650 baht. An analysis of the regional economic structure and its physical characteristics has revealed the following:—

- (1) There is a tendency for economic growth in the region to slacken because the yield per rai is low and the fishing industry has been declining.
- (2) Industries engaged in the processing of agricultural products for export, especially sugar refinery factories, are highly concentrated in one area and have a low production capacity.
- (3) The level of unemployment has been rising recently, particularly along the coastal areas.
- (4) The Western region lacks an urban centre to accelerate its own development. Consequently, it has been dominated economically by Bangkok, which has taken away most of the region's economic gains.

The region can be further sub-divided into four areas according to the level of development:—

- (1) **Expanding area**, which produces sugar canes and sugar.
- (2) **Depressed area** along the coastal towns as a result of the declining fishing industry.
- (3) **Mature agricultural area** which is facing the problem of low rice yield per rai of production.
- (4) **Mixed uplands area** where the encroachment and destruction of its natural resources are widely practised especially illegal mining and deforestation.

During the Plan period, the development of the Western region will be directed, however, to the first two areas. This will necessitate the rehabilitation and improvement in production capacity of the sugar and pineapple canning industries. The fishing industry, coconut farms and the tourist industry along the West coast will also be revitalised.

1. Economically expanding area.

This area is located in the centre of the region and encompasses Kanchanaburi, Suphan Buri, Nakhon Pathom, Ratchaburi, Petchaburi and Prachuab Khiri Khan, and having an output value of 23,878 million baht representing 40 per cent of Gross Regional Product. Sugar canes and pineapples are among the two main economic crops which play a very important role in increasing income and employment in the region. Sugar factories are concentrated along the Meklong river; whereas pineapple canning factories are mostly located in Petchaburi and Prachuab Khiri Khan. The two processing industries account for 60 and 80 per cent respectively of the national output, most of which is for export. There is, in addition, production which is secondary in importance but which has a potential for higher capacity and

productivity. The two most prominent are the ceramics industry and the bus and lorry body assembly industry.

1.1 Major problems of the expanding area.

(1) Low yield of sugar canes per rai and low-quality pineapples.

At present sugar cane output is approximately 6.4 tons per rai which is rather low. This is because old and less productive canes are being used to grow new ones. There is also a lack of appropriate technology and a shortage of water supply for cultivation purposes. As for pineapples the main problem is the quality and size which do not quite meet the factories specifications.

(2) Location of export processing factories.

Since sugar factories are concentrated on the Meklong river bank, they discharge effluent into it. The factories are also far away from the raw materials giving rise to high energy costs. The old machines and outdated technology contribute to low standards and create problems of utilizing maximum capacity. Small scale industries which are important and which have a high potential for generating employment, e.g., ceramics and bus and lorry body assembly plants, are experiencing financial difficulties. They are also in need of industrial management know-how and effective measures to regulate environmental pollution.

(3) Pricing and marketing problems.

The purchasing of sugar canes is by weight regardless of the sweetness, and the price is depressed by the middlemen and factory owners. Consequently, sugar cane growers receive low income. The sugar industry itself is faced with pricing problems and internal and external marketing problems. The low prices of pineapples have a direct effect on the income of the growers. Some of the pineapple canning factories are not up to acceptable standards and have an uncertain level of output. The industry is also faced with pricing and marketing problems. Sugar cane and pineapple industries and export processing activities will not be easily rid of their problems because they do not have a responsible organisation in the management of production, pricing and marketing, both internally and externally.

(4) The slackening of trading activities and services in the region.

This stems from the fact that the region is short of a proper regional urban centre which will keep the accruing income within the region. Instead, the region is dominated by the Bangkok Metropolis both in trade and services. The benefits, therefore, do not adequately accrue to residents of the region.

1.2 Targets of the development of the expanding area.

In order to further increase agricultural productivity, improve efficiency in the export industry and those industries with potential, and to redistribute factories closer to raw material sources, the following targets have been set.

(1) The first target is to increase the yield per rai of sugar cane and to improve the quality of pineapples. The plan will cover sugar cane areas of 1.8 million rai in 12 districts involving four provinces. They are Muang, Tha Muang, Tha Maka, and Phanom Thuan districts in Kanchanaburi province; Muang, Kamphaeng Saen, and Don Tum districts in Nakhon Pathom province; Chom Bung, Ban Pong, and Photharam districts of Ratchaburi; and U Thong and Song Phi Nong districts of Suphan Buri province. The pineapple growing area, covering approximately 350,000 rai, will cover five districts in two provinces. They are Muang, Kui Buri, Pran Buri and Hua Hin districts in Prachuab Khiri Khan province and Cha-am district in Petchaburi province.

(2) The location of sugar factories should be near to the sugar cane growing area, especially in Suphan Buri and Kanchanaburi in order to lower transport costs, save energy, and reduce environmental pollution in the region.

(3) In the agro-economic zone identified in the announcement by the Ministry of Agriculture and Co-operatives, there will be regulations controlling the maximum distance that agricultural products can be transported. This is to ensure that all the widely dispersed factories are served with raw materials in an optimal manner. The regulations will help reduce transport costs and facilitate quality and quantity controls, and establish minimum price levels or guaranteed prices for products.

(4) The efficiency of sugar and pineapple canning industries using old and outdated machinery must be increased. There are 20 sugar factories in four provinces of Kanchanaburi, Suphan Buri, Ratchaburi and Phetchaburi. There are also four pineapple canning factories in Phetchaburi and Prachuab Khiri Khan provinces.

(5) Standards of small scale industries, especially the ceramics industry (60 factories are included) must be raised. Lorry body assembly plants (230 factories are included) must be assisted in increasing their production capacity. The resulting development will help generate more employment.

(6) Ratchaburi province will be developed as a regional urban growth centre in the Western region in order to increase the province's capacity to provide services to various activities at the regional level.

1.3 Development measures.

In order to achieve the stated targets, the following implementation measures will be taken:

(1) The Sugar Cane Research Centre at Tha Muang must complete research on a new variety of sweet sugar canes which can be utilized by growers. The government should establish measures which require factory owners to buy sugar cane according to sweetness, rather than by weight. The expenses of the Research Centre must be shared between factory owners and Sugar Cane Growers' Association in the form of fees in the handling of the sugar cane.

(2) Technical advisory service centres for pineapple growers will be set up so that the quality of pineapples will be high enough for canning. An area of 350,000 rai extending over Cha-am district of Phetchaburi province; and Muang, Hua-Hin, Pran Buri and Kui Buri districts of Prachuab Khiri Khan province will be covered in this scheme.

(3) Sugar cane and pineapple growers will be encouraged to register with the government. The registration will ensure that the transportation of products to the factories will be accomplished efficiently and will be compatible with the production capacity and the requirements of the factories.

(4) Irrigation development will be accelerated along the right and left banks (Malaiman) of the Meklong river basin. An area of 1.5 million rai is planned to be irrigated. The existing irrigation system in the Phetch river basin will be improved and expanded to distribute water to cultivated land area of 380,000 rai. The private sector will be encouraged to participate in land consolidation, and the investigation of groundwater sources outside irrigated areas. The water will be used for the cultivation of sugar cane, and other cash crops in an area of 100 sq.km. between Muang and Sai Yok districts of Kanchanaburi province.

(5) A plan will be developed and implemented to disperse sugar factories so that they will be located as close as possible to the raw materials. The intent is to lower transport

and other costs and reduce pollution as most factories are located on river banks. The government will have to be chief initiator in specifying the location of factories and indicate measures to control the level of effluent and provide necessary basic infrastructure, primarily water resources and roads etc.

(6) Sugar refineries and pineapple canning industries will be encouraged towards more mechanisation and their production techniques will be improved. The government will assist in this effort by reducing import taxes for modern and efficient machinery which will reduce production costs.

(7) Industrial credit expansion will be encouraged to increase productivity. Small scale industries, especially ceramics factories and bus and lorry body assembly plants, which generate regional employment will be given special attention. The government will instruct commercial banks to play a more active part in making credit readily available.

(8) An institution will be established which will have factory owners, agriculturalists and government officials as members who will be jointly responsible for fixing the level of output, establishing pricing policy, and the marketing of sugar cane and pineapples, and export processing industries.

(9) Ratchaburi province will be developed as a regional urban growth centre. There will be a regional planning centre which will be manned by capable senior planners who will then be responsible for developing implementation plans and coordinating other government agencies in regional development.

1.4 Operations Plan and major projects.

(1) **Plan to increase agricultural productivity.** The plan will include projects to encourage the production and distribution of a new variety of sugar cane, which will be purchased by the level of sweetness instead of by weight. A project to provide technical advice to pineapple growers will also be initiated. And finally, a project to encourage dairy cow rearing in place of pineapple growing will also be launched.

(2) **Plan to develop water resources for agricultural purposes.** These water resources include: the irrigation project of the Meklong river basin, now in its second stage; the project to improve and expand the irrigation system in the Phetch river basin, and the underground water survey project in Kanchanaburi province.

(3) **Small scale industries development plan.** The project aims to provide financial assistance for the development of small scale industries.

(4) **Plan to develop Ratchaburi as a regional urban growth centre.** The province is suitable for development because it is relatively densely populated. It is the centre of water, rail and road transportations, which connect the South with the North and the Northeast. Regionally speaking, it is far enough from the influence of the Bangkok Metropolis. It is also the centre of finance, communications, small trading and services. The development projects will be concerned with upgrading urban public utility services and the provision of main public works to raise the standard of Ratchaburi so that it can serve as the regional growth centre.

2. Economically depressed area along the coastal towns.

The area extends from the coastal land of Samut Sakhon to the southern part of Prachuab Khiri Khan, covering two million rai, or seven per cent of the Western region. The area has a population of 472,000. It has a gross output value of 8,600 million baht or 14.5 per cent of the region. The per capita income of 9,800 baht in this area is slightly lower than that of the region. Main sources of income stem from fishing, which is currently experien-

cing a severe slump. Output of coconuts has been declining and the area suffers further from a deteriorating environment.

2.1 Major problems.

(1) Marine Fishery, which is the main occupation of the local people, has been adversely affected. The quantity of sea fish caught has been diminishing because of previous overfishing using unsuitable fishing gear. Rising fuel costs and expensive fishing tools have put a large number of fishermen, especially the small ones, out of business. The number of fishermen has been reduced from 42,000 in 1976 to 17,000 by 1980.

(2) The yield per rai of coconuts is low, especially those grown in the Southern part of the region because they are old, and consequently less productive and less resistant to diseases.

(3) The environment is increasingly worsened because of the effluent discharged by the sugar factories. They do not have any effective pollution prevention system and are not strictly controlled by government agencies concerned with the problem. The contaminated environment is posing serious problems for fish farming and fruit tree cultivation. Fruit tree cultivation in some places is further aggravated by sea water.

(4) The tourist industry has not been properly developed due to inadequate basic infrastructural services, such as water supply for human consumption and other uses, communication, and various other service stations. The industry has so far not been adequately promoted by either government agencies or by the private sector in the region itself or at the national governmental level.

2.2 Targets of development.

In order to accelerate the development of the declining economic activities which include fishing, agriculture and the tourist industry, the following targets have been set.

(1) Coastal and inland aquacultures must be promoted and increased in order to counter the effects of the declining marine fishery. Under this scheme, 109 villages located in 12 districts of the four provinces of Samut Sakhon, Samut Sonkhram, Phetchaburi and Prachuab Khiri Khan will be involved. Approximately 37,000 fishermen will be included.

(2) The yield per rai of coconuts will be increased. An area of 3,750 rai which extends over Muang, Thap Sakae, and Bang Saphan districts and Bang Saphan Noi sub-district will have their yield increased to 80-100 coconuts per tree per annum.

(3) The worsening environment will be improved especially the adverse situation created by the concentration of sugar factories along both sides of the Meklong river.

(4) The tourist industry will be promoted along the seaside resorts of Cha-am district in Phetchaburi province; and Hua-Hin district in Prachuab Khiri Khan province and in Kanchanaburi province.

2.3 Measures. To realize these targets the following measures will be taken.

2.3.1 Increase in aquatic life.

(1) Small scale marine fishery and inland fishery will be speedily developed. Credit, basic services and technical advice will be provided in order to increase the efficiency of the working system and facilities. Fishermen and fish farmers will be encouraged to form a fishermen's group so as to be able to develop more stability in pricing and marketing policies. The fishermen and the fish farmers will be assisted in finding secondary jobs to increase their income.

(2) The improvement of the provincial fisheries stations will help promote coastal and inland aquacultures. The stations will be used to produce new breeds and provide training and technical advisory service to the farmers who will thus use the knowledge to improve their productivity. The Food and Agriculture Organisation (FAO) will be approached for financial assistance in this regard. The farmers will be encouraged to form a union to ensure stability of prices and the market.

(3) There will be an accelerated development of coastal areas and swampy coastal land for shrimp culture as an experimental project in privately owned land. Uncultivated land along the coast or the former salt mining areas where the farmers had been affected by low salt price should be used. In this effort, an area of 1,000 rai in the two provinces of Samut Sakhon and Prachuab Khiri Khan have been selected. Those farmers who want to find a new job will have to pioneer this project themselves with the Coastal Land Development Office providing assistance in technical training and identifying financial loan sources for the initial investment.

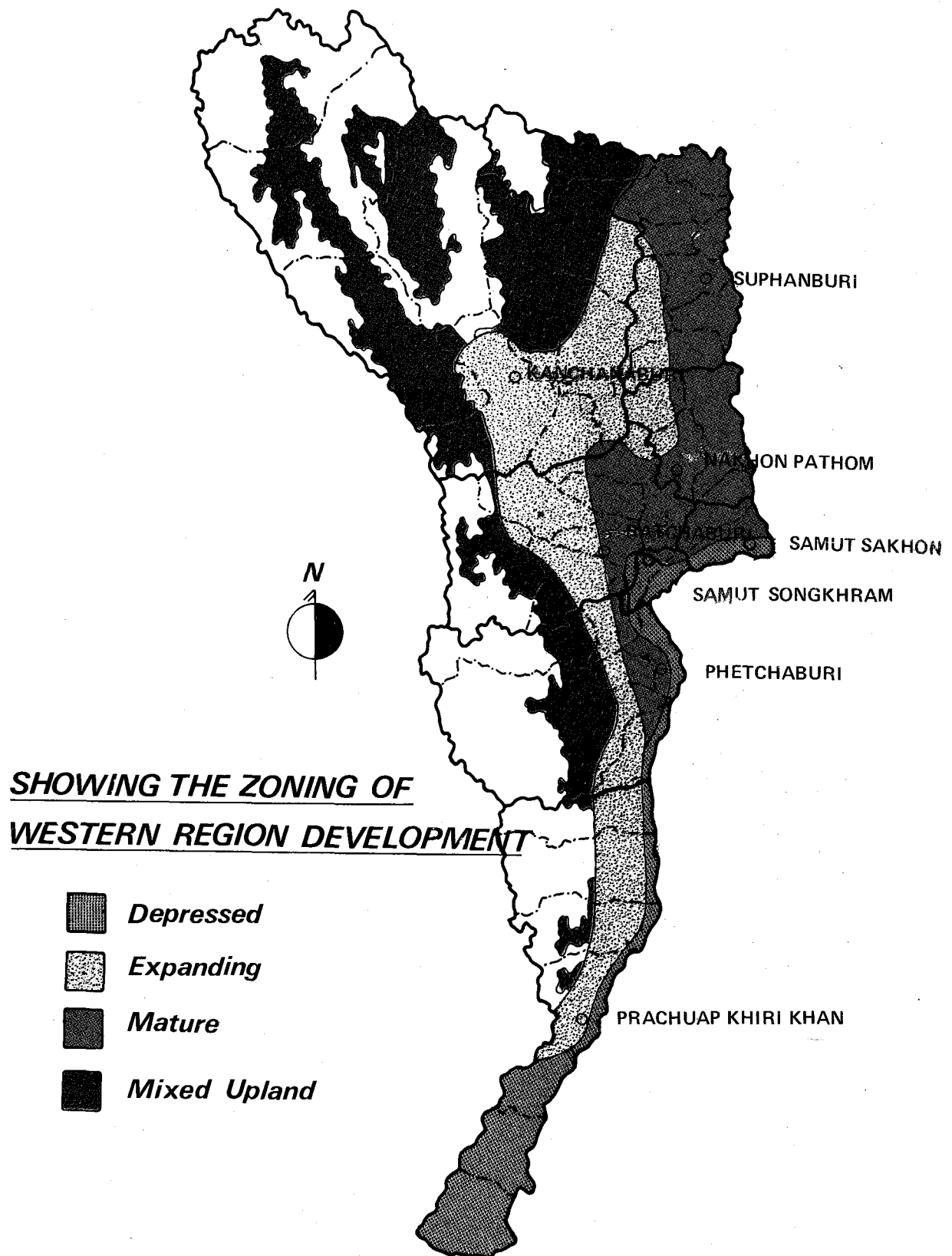
2.3.2 Raising coconut yield. Coconut growers will be encouraged to discard their old coconut trees known as "Thai talls" in favour of the new hybrid known as "Mawa PB 121", which gives a high yield and is more disease resistant. At present, the experimental station at Kanturi, Tha Chana district, Surat Thani province is carrying out research to produce new seeds, but the quantity is still small. It is, therefore, appropriate to have more experimental stations in the Western region. The farmers should be advised to grow fast yielding cash crops such as cassava, maize and peanuts etc., while waiting for coconuts to grow.

2.3.3 Improve the environment. The pollution problems caused by sugar factories must be promptly addressed. There must be better co-ordination between government agencies responsible for research work on pollution control and those agencies which actually enforce pollution controls. There will be continuous examination of the water conditions in the main rivers and along the coast to determine the level of pollution which can have disastrous effects on marine lives and fruit trees. Pollution control laws will be strictly enforced.

The Royal Irrigation Department will have to take quick action in Samut Sakhon and Samut Songkhram provinces, which are affected by sea water. Strong barriers to keep out sea water must be constructed. The private sector will have to co-operate with the government in the construction by voluntarily selling the land as well as donating it.

2.3.4 The tourist industry will be promoted via the development of the seaside resorts of Hua Hin and Cha-am so that more tourists will visit the areas. Basic infrastructural facilities such as the transport network, communications system, potable water and ordinary water supplies, and the services industry, will be improved. It is expected that regional unemployment may thus be alleviated. Agricultural workers and fishermen will be able to obtain additional income by selling local products.

WESTERN REGION



CHAPTER 4

DEVELOPMENT OF THE LOWER NORTHEAST

1. Summary of Past Development.

Development of the Northeast for the past 20 years has seen an expansion in every economic sector, especially agriculture, industry, transportation, commerce and services. Consequently, per capita income has increased five-fold during this period, rising from 1,082 baht in 1960 to 5401 baht in 1981. But the share of gross regional income which was 17.0 per cent of the national income in 1960 has now declined to 14.7 per cent in 1981. This is primarily because agricultural output, which is the main economic production of the region, accounting for half of the total regional income, has been generated by the expansion of agricultural land which is now exhausted. Infertile and marginal land has been resorted to resulting in low yields. It is, therefore, necessary to develop this low yielding agricultural area as well as those areas with deteriorating natural resources. The two selected areas are the Kula Rong Hai waste land (Tung Kula Rong Hai), and the 19 border districts of the lower Northeast. The development of the areas will improve the efficient utilization of land, water resources, and forests, thus increasing output per rai. The planned development will accord well with the agricultural restructuring policy, from land extension to improved efficiency of existing land utilization, and the development policy for national security purpose by the Second Army Region. The latter policy intends to develop a new and sound local community along the Thai-Kampuchean border to counter disturbances from outside the country.

2. Kula Rong Hai waste land.

2.1 Issues. Tung Kula Rong Hai is a flat and low plain, which extends to an administrative jurisdiction encompassing ten districts in Roi Et, Si Sa Ket, Surin, Maha Sarakham, and Yasothorn provinces. The Plain is located on the left bank of the Mun river in the central part of the region, covering 2.1 million rai with a population of 350,000. Initially, the Plain suffered from floods regularly. But after the construction of Lam Takong and Lam Phra Pleung dams, which retain the water for irrigation in the upper part of the Mun river in Nakhon Ratchasima, the Plain has now become a vast area of cultivable land with no annual flooding from the Mun river. However, there are now three main problems associated with the new situation.

(1) **Land ownership problem.** Land acquisition by the landless farmers has been arbitrary and unsystematic. Farming plots vary in size and are scattered about. Claims to land have been accomplished at will and without land title certificates. The uncertainty and the arbitrary nature of the situation have given rise to conflicts and disputes, which result in the disincentive to invest in the improvement of the land which is already low in quality.

(2) **Fluctuating rice output.** Agricultural production is rain-fed, and, therefore the output is uncertain because of the unpredictable water supply. There has been widespread deforestation which has aggravated the problem of scarce water resources. Rain-fed rice production is faced with the problem of water shortage at the beginning of the season while, during harvesting time, is subject to floods because of torrential rains and the overflowing of the Mun river. There are five areas which are almost invariably affected by floods. They are the plain in the Mun river Lam Pang Chu area; the plain in the lower part of the Mun river, Ta Thum district; the plain in the upper part of Lam Siew Yai, Suwannaphum district,

the plain in the lower part of Lam Siew Yai also Suwannaphum district, and the plain in Lam Plub Pla, Chum Phol Buri district.

(3) **Low output and meagre income.** Apart from the two problems mentioned above, the soil conditions are also poor with high salinity content. The soil in some area is high with acid content and becomes hardened very quickly making it difficult to start rice seedlings. The use of low yielding paddy seeds coupled with antiquated production techniques have brought about predictably insufficient quantity to meet consumption and exchange needs. The transport network for marketing of rice is also inadequate, which forces the "surplus" output to be sold locally at a low price, and consequently results in low income for the local farmers.

2.2 Targets of Tung Kula Rong Hai development

The target area of 2.1 million rai is sub-divided into :—

(1) **Principal target area**, which covers an area of 1.4 million rai, consolidated as agricultural land with an improved land ownership system, and

(2) **Secondary target area**, which covers the rest of the area.

2.3 Development strategy.

2.3.1 Land reform. Within the Plan period, there will be land consolidation for agricultural production and an improvement in the land ownership system comprising an area of at least 656,000 rai.

2.3.2 Flood prevention and control.

(1) **Dike construction and improvement of plains to cope with floods.**

In order to control the flooding of the five plains in Tung Kula Rong Hai, dikes will be constructed and national highways, feeder roads and/or rural roads will be improved to act as water barriers. The five affected areas are the plain in the Mun river — Lam Pang Chu area; the plain in the lower part of the Mun river, Ta Thum district; the plain in the upper part of Lam Siew Yai, Suwannaphum district; the plain in the lower part of Lam Siew Yai, Suwannaphum district; and the plain in Lam Plub Pla, Chum Phol Buri district. At the same time, there will be an improvement in the capability of the flooded plains in Tung Kula Rong Hai to enable them to conserve more water for agricultural use at the beginning of the planting season.

(2) **Feasibility study of reservoir construction.**

Although it is possible to construct a reservoir at the watershed area where the rivers of Lam Pang Chu, Lam Siew Yai, Lam Siew Noi and Lam Tao flow past Tung Kula Rong Hai, the cost would be prohibitive. There will also be many more complications even if the problems of flooding and irrigation for agricultural production may have been solved. Consequently, during the Fifth Plan period it will be sufficient to carry out a feasibility study to aid in the future decision making process.

(3) **Catchment protection plantation.**

The plantation will slow down the rainwater flow, and thus soil erosion. The entire administrative machinery from Changwat (province) down to Tambon levels will have to join the people in the afforestation effort. The people should be encouraged to plant forest trees themselves, with the Royal Forestry Department, and the Department of Agriculture providing seedlings to them. The newly planted trees would preferably be fuelwood and fruit trees and other utility yielding trees. Catchment areas in Lam Siew Yai, Lam Siew Noi, Lam Tao, Lam Plub-Pla, and Lam Pung Chu will be given prime attention.

2.3.3 Increase in productivity and income.

(1) Land development.

Land development will be accelerated to increase agricultural output. Research will be conducted on land development in Tung Kula Rong Hai, the results of which will be used to assist farmers in the improvement of low quality land with a high salinity content according to the priority of each listed area.

(2) Development of water resources for farming.

A farm pond with a capacity of 100,000 cubic metres will be constructed in the farm land, together with an improvement of natural water resources and water ways such as Lam Siew Yai, Lam Siew Noi, Lam Tao, Lam Plub Pla, and Lam Pung Chu so that there will be constant water supplies for farming every year.

(3) The development of principal occupation of rice farming.

There will be more intensified research and experiments to find higher yielding paddy seeds. The leading farmers will be given advice on appropriate rice growing technology which will allow for the specificity of the land and climate conditions, including the inclinations of the farmers. The leading farmers will then be expected to share the knowledge they have acquired with the fellow farmers. The government will also provide credit at low interest rates and pesticide services for the farmers.

(4) The development of supplementary jobs.

Other agricultural activities which bring in additional income to the farmers will be encouraged. They include the raising of cattle, and poultry, fish-farming and village fish ponds. "Back yard gardening" of vegetables and fruits and sericulture will be actively promoted.

(5) Means to encourage farmers to sell their products at a higher price.

The setting up of local farm products market centres for Phayat Pum Phisai, Suwannaphum and Tha Tum districts will be promoted with the merchants and farmers sharing in the benefits. The government will provide basic necessities and ensure smooth functioning of the centres. A plan for the development of road network which will join rural roads with the market centres will be devised, and construction carried out promptly.

3. The 19 border districts of lower Northeast.

3.1 Summary of issues.

The 19 border districts extend over the administrative jurisdiction of the four southernmost provinces of Buri Ram, Surin, Si Sa Ket, and Ubon Ratchatani. The area runs parallel to the 24th national highway, Chok Chai — Dej Udom route, and along the common border with the Democratic Republic of Kampuchea, and the People's Democratic Republic of Laos.

It has a land area of 11.71 million rai, and a population of 1.51 million. Originally, the area was a prosperous forest land, and a watershed area for a number of tributaries, such as Lam Chakaraj, Lam Plai Mas, Lam Chee Noi, Huai Samran, Lam Dom Yai, and Lam Dom Noi, which flow into the Mun river. The water from this source was sufficient for the cultivation of one quarter of agricultural land in the whole region. The construction of the national highway, no 24, Chock Chai — Dej Udom route, which was completed in 1971, has opened up this vast area as additional farm land. However, there are three main problems which follow.

(1) The problem of rapid general deforestation and the destruction of forest in the watershed areas. The landless farmers or those who cannot produce enough for consumption from around the area and elsewhere have moved in and cleared the land for cultivation. The rate of encroachment-cum-settlement is as high as 6.1 per cent, resulting in the destruction of forest land of 5.28 million rai, or an average of 1.32 million rai per year between 1973 and 1977. Forest trees in watershed areas have inevitably been destroyed.

(2) The uneven pattern of settlement of these new communities has resulted in their isolation, and hence underdevelopment. They are also under the influence of insurgents from outside the country. The sporadic in-migration to clear new land for cultivation has given birth to 318 new villages in the past nine years. At present, there are altogether 1,786 villages, with a population of 1.51 million. Of the total number of villages, 95.8 per cent have had their community development village committees appointed by the government. But there are only 45.5 per cent of the villages which have been trained to observe their rights and duties as citizens. Rural roads and water for human consumption, which are the government's main services are still inadequate. That is to say, 54.4 per cent of the families are located more than 1 km. from rural roads. And families without adequate water supply for their own consumption and for their animals account for 30.7 per cent of the total number of families. Education and public health services have not reached these villages, particularly those near the border. The people in these communities hardly receive the benefits of economic development. Some of them have remained completely underdeveloped. This weakness has paved the way for communist infiltration based in the Democratic Republic of Kampuchea. They have easy access to one another and have often co-operated in various terrorist activities in the past.

(3) **The rapid expansion of land use for field crops.** The growing village communities, which are mainly engaged in field crop production, are increasingly clearing more land for cultivation at a rate as high as 10.5 per cent per year. The expansion in the use of land has had a direct negative impact on the forest land which has been diminishing. Although the total crop yield has increased with a larger cultivable land area, the yield per rai of upland crops such as maize, tapioca and jute has declined and is expected to fall further in the future.

3.2 Targets of lower Northeast development.

3.2.1 Target area. This is field crop land covering 1.396 million rai, which is further classified as :—

- (1) Principal target area, and
- (2) Secondary target area.

Principal target area covers forest land in watershed areas including Lam Chakaraj, Lam Nang Rong, Lam Chang Han, Lam Plai Mas, Lam Chee Noi, Huai Tab Tan, Upper and Lower Huai Sam Ran, Huai Ka Yung, Lam Dom Yai, and Lam Dom Noi.

Secondary target area covers the rest of the land.

3.2.2 Target groups. They are the new communities in 318 villages.

3.3 Development measures.

3.3.1 Conservation of forests in watershed areas. This target can be realized by surveying and classifying forest land into three types; i.e., forests in watershed area, dense forests, and devastated forests.

(1) Forests in watershed areas.

— The first measure would be to identify the areas by placing markers so that the people can be informed.

— The second measure is the actual protection of existing forests in watershed areas by establishing a centre for prevention of forest destruction.

— The third measure is to promote voluntary planting of trees to ameliorate the worsening forest conditions in watershed areas. It is expected that such voluntary planting will increase the affected forest land by ten per cent.

— The fourth measure, concerned with the devastated forests in watershed areas where people have already cleared the land for cultivation, will be to develop forest villages or communities as quickly as possible.

(2) Dense forests. In this area concessions to fell trees will be granted to generate more revenue. Land consolidation will also be promoted so that the people can make an adequate living.

(3) Devastated forests. Such areas must be set aside for the people and developed as forest villages.

3.3.2 New communities will be speedily developed and unified to be ready to counter insurgent threats from outside the country.

(1) Community development. This will be accomplished by establishing village community development committees to train the people to be aware of their rights and duties, and to educate them in respect of the present system of government. Community development activities concerning children, women, thriftiness and savings, occupational groups, and public goods will be promoted, hand in hand with the Tambon development plan, thus indicating the genuine needs of the local people. Such activities will serve as ground work for the government's rural development programme.

(2) Provision of potable water and water for other uses in deprived villages. Development of surface water resources will be emphasized. Natural water resources will be preserved and improved upon for human consumption and other purposes. Village wells and ponds will be dug. Rain water containers will be supplied to deprived areas. The Office of Accelerated Rural Development has undertaken a survey and classified 30.7 per cent of the villages as in need of immediate attention. It is understood that most of these facilities and services will be channelled primarily for use in the principal target area.

(3) Provision of compulsory education. At first, schools with compulsory education will be established in those villages where the border patrol police have set up and started the education programme. The villages which are more than three km. from the schools will have to be accorded secondary importance. Out-of-school education will be rapidly expanded to accommodate students who have completed compulsory education. They will be encouraged to receive vocational training which is suitable to the local conditions and will meet local labour market needs.

(4) Provision of basic public health services. More basic health services will be provided in the form of an additional Tambon health centres and an adequate supply of health officers to meet the requirements of rural people. Village health volunteers will be intensively trained to work in village or Tambon health centres.

3.3.3 Increase in efficiency of land use and land productivity in order to reduce land expansion.

(1) **Research and promotion of main field crops.** There will be research conducted on improving the quality and production techniques of rice, jute, and cassava, taking into account local soil conditions. The new seeds and production techniques will be introduced to leading agriculturalists who will then be expected to pass on what they have learnt to other local farmers. Fertilizer will also be supplied at a low price.

(2) **Setting up of agricultural co-operatives and supporting industries.** The agricultural co-operatives will strengthen productive and selling powers of the farmers. They are also expected to mobilize funds for their members. There will also be simple processing industries of agricultural products to utilize the surplus products of the farmers. Examples of such processing industries are tapioca chips and tapioca pellets factories, a corn shelling factory and a kenaf baling factory.

(3) **Encouragement to sell agricultural products at a higher price.** The government will encourage the establishment of local farm products market centres in the districts of Nang Rong, Prakhon Chai, Prasat, Sankha, Kantharalak, Khumkhan, Det Udom, Nam Yun, and Buntharik. The venture will be regulated so that both merchants and farmers will share in the benefits and profits. The government will keep only the minimum functions of providing basic facilities and ensuring a smooth functioning of the centres. A plan of road networks to join national highways with rural roads to the market centres will be drawn up and the construction promptly undertaken.

NORTH EASTERN REGION



**MAP SHOWING AREAS TO BE DEVELOPED IN
TUNG KULA RONG HAI AND THE LOWER NORTHEAST**



Tung Kula Rong Hai (Kula Rong Hai Waste Land)



Nineteen Border Districts in the Lower Northeast

CHAPTER 5

DEVELOPMENT OF THE THREE UPPER NORTHERN PROVINCES

1. The Economic Situation in the Past.

The development of the upper Northern provinces which comprise Chiang Mai, Chiang Rai, Mae Hong Son, Lamphun, Lampang, Phrae, Nan, Phayao and Tak has resulted in considerable expansion of economic activities. But the 1979 per capita income of the upper Northern region is still lower than the national average by 22.6 per cent which is attributable to the three reasons:

1.1 The increase in agricultural production, in the form of encroachment on forest reserves, averaging 2 million rai per year, is no longer possible since the land frontier has been reached.

1.2 Agricultural land, serving farmers for a long period, has lost its fertility.

1.3 Most agricultural production is dependent on nature. In 1979, irrigated land totalled only 1.8 million rai a mere 2.8 per cent of the total land area. There is not enough diversification of production. It is, therefore, necessary to solve the economic problems of the upper Northern region in accordance with the National Plan by readjusting the agricultural structure, particularly the improvement in land productivity, water resources, and forest in the upper Northern region. The income of the farmers will be increased, especially those in the three border provinces of Mae Hong Son, Phayao and Nan which have experienced the most problems of all.

The three provinces of Mae Hong Son, Phayao and Nan, which face the problem of scarcity of productive land and which are the first target of development, have an area of 32,000 sq. km. or 20 million rai. Most of the land is covered by mountains and forests which are watershed areas of the rivers Yom and Nan. The flat plain which is suitable as cultivable land accounts for only 10 per cent of the total. The population in 1979 was 920,000 of whom 10 per cent were hilltribe people. The population growth rate, especially that of the hilltribe people has been three per cent per annum. Population density per unit of cultivable land is considered high and stands at 490 persons per sq. km. Thus, the human settlement pattern is inadequate. There are altogether 1,800 villages. Fifty per cent of the output and income of the people is derived from agriculture, most of which is rain-fed cultivation. There are few main crops. The two most important are rice and tobacco.

2. Issues.

2.1 The agricultural base is narrow with only two main crops, and the expansion rate is also low. There are two main reasons.

(1) The cultivation of the principal field crops of rice and tobacco employs traditional techniques and is predominantly rain-fed and the size of land holding is small, averaging less than 10 rai per family. There is no improvement or conservation of farm land fertility. Consequently, output is uncertain and the growth is either low or stagnating. Agricultural diversification has not yet been sufficiently promoted.

(2) Deficiencies exist in the provision of basic infrastructural facilities, especially in irrigation. Cultivation during the dry season is very limited. Double cropping accounts for only five per cent of irrigated area, or one per cent of the entire farm land. The use of high yielding paddy seeds is still very limited and not generally available. Transportation in the area is highly restrictive.

2.2 Deterioration of Natural Resources. In the past there has been inefficient land use and improper utilization of forest and water resources. There has been great pressure on the search for new agricultural land as most of the area is mountainous and highly sloped. The fertile low land suitable for agricultural activities is quite small in area. Cultivable farm land accounts for only 3.8 per cent of the entire area. The overall population growth rate of 2.8 per cent, and of more than three per cent for hilltribe people, only aggravate the land pressure problem. The cultivation is mostly rain-fed and the techniques are appallingly out of date. The majority of hilltribes grow opium and practise shifting cultivation. Soil erosion and deterioration of soil fertility inevitably follow. The natural environment, especially the forests in watershed areas, is gravely threatened. The encroachment and destruction of forests in watershed areas of the three provinces have averaged more than 400,000 rai annually. In Nan province alone, the annual deforestation is as high as 360,000 rai. Despite this, however, the reafforestation effort in the three provinces totals just over 10,000 rai of forest land annually.

2.3 Security Problems. A large part of the area is close to the border, is isolated, and has not received the benefits from economic development. The area, particularly in Nan province, is threatened by insurgent activities. The life and well-being of the people are thus endangered. The implementation of development policies of various government agencies are also obstructed.

3. Development Targets.

Agricultural productivity will be raised and intensified in order to promote a structural shift away from extensive agriculture practices. Production will be diversified to create more employment opportunities and produce higher incomes. Land, forest and water resources will be utilised carefully and efficiently in order to maximise economic returns. The deteriorating resources which could threaten environmental conditions in the Yom and Nan rivers which are the main sources of agricultural production of the lower Northern region and the Central region will be taken care of and improved upon. Natural resources in the area must be conserved so that the electricity generator using hydro-power at Sirikit Dam can be properly maintained. There must also be a plan to eliminate or lessen the impact of infiltration which can threaten internal security and the safety of people in the three provinces.

In the Fifth Plan the following targets have been set for the development of the three provinces in the upper Northern region:

3.1 Target area. The area covers the three provinces of Phayao, Mae Hong Son, and Nan.

(1) **Principal target area.** An area of 11.97 million rai extending over 10 districts will be included. The districts are Pua, Thung Chang, Mae Charim and King Amphoe Ban Laung (sub-district) of Nan province; Pong and Chiang Muan districts of Phayao province; and Khun Yuam, Muang, Mae Sariang, and Mae La Noi districts of Mae Hong Son province.

(2) **Secondary target area.** Twelve districts with a land area of 8.15 million rai will be covered. They are the districts of Na Noi, Chiang Klang, Tha Wang Pha, Muang Sa and Na Muan (sub-district) of Nan province; districts of Chun, Chiang Kham, Dok Kham Tai, Mae Chai and Muang districts of Phayo province; and finally, Pai district of Mae Hong Son province.

3.2 Target group. These are hilltribe people in the highland forests and the small holding farmers who have insufficient land for agricultural production.

4. Development Measures.

In order to achieve the targets, the following measures have been devised :—

4.1 Agricultural production will be improved so that increases in output will be accounted for by increases in productivity rather than by the extension of cultivated land. Attention will be given to the optimum use of the natural resources of land and water. Research to apply new technology in the production process will be vigorously encouraged. Areas with deteriorated natural resources will be quickly rehabilitated.

4.2 Agricultural production will be actively and speedily diversified to include inland aquaculture and livestock rearing. Deserted land, preserved pasture-land, natural water resources, and water resources for irrigation will be improved and rehabilitated. The people will be taught relevant knowledge concerning production technique and marketing. It will also be necessary to provide services for the distribution and sale of fish and animal breeding stocks, including the provision of credit to adequately meet these needs. Small-scale industry, mining and the tourist industry will also be promoted.

4.3 Measures to raise production efficiency.

4.3.1 Water resources will be developed in order to further extend the irrigable double cropping areas. Efforts will also be made to reduce risks stemming from droughts. There are two relevant measures to accomplish these, as follows:

(1) The government will encourage and assist self-help traditional irrigation schemes of the North by providing technical expertise and the necessary materials for the construction or improvement of smallscale irrigation systems so that they will be more permanent. All districts in the three provinces will be covered.

(2) New small-scale irrigation schemes will be implemented and existing ones will be improved upon in Chun, Chiang Muan and Pong districts of Phayao province; Na Noi, Chiang Klang, Muang districts and Na Muan and Ban Klang sub-districts of Nan province; and Mae La Noi and Khun Yuam districts of Mae Hong Son province.

4.3.2 Research and Extension work.

(1) In encouraging and training farmers to acquire new production techniques and new methods for improving soil conditions, the main cash crops with good marketing potential will be particularly emphasized. They are rice, upland rice, mung beans, soy beans, peanuts, and various fruits in all districts of the three provinces. Maize and tobacco in all districts of Phayao and Nan provinces will also be given special attention.

(2) There will be programmed for seed multiplication for high yielding varieties of main economic crops for sale to farmers. Credit will be provided together with pesticide services in the target area.

(3) Research to find methods to improve the infertile land, and most suitable varieties for each area with specific soil conditions will be carried out. Every district in Nan province; the districts of Mae Sariang, Mae La Noi, Khun Yuam and Muang of Mae Hong Son province; and the districts of Chun, Pong and Chiang Muan of Phayao province will be given particular emphasis.

(4) There will be a survey and land use planning in Phayao and Mae Hong Son to solve the problem of inappropriate land use, and encourage better land utilization in accordance with the rest of the planned area.

4.3.3 Improvement of agricultural pricing and marketing to give incentives to farmers to increase output. The following measures have been envisaged :—

(1) There will be an intensive study for developing a plan to promote the setting up of a central market in Mae Sariang district, Mae Hong Son province; and one in Pua district, Nan province. The government will provide basic infrastructural needs for proper marketing, such as the improvement of roads joining production centres and the central market, storage areas, and communications system etc. Regulations, functions and the operations of the markets will be defined. The government may determine that the bidding process shall apply to both purchases and sales. There can also be a gradation of quality of goods for easy pricing, etc.

(2) The government should encourage agriculturalists to collectively form agricultural co-operatives for the purposes of marketing, provision of credit and collection of sufficient amount of products to be graded and standardised. In this way higher prices for the products may be realized. Each district located in the three provinces will be under close scrutiny.

(3) There will be development of a "lower order centre system" in seven areas. They will be in Mae Sariang Sanitary district, Mae Hong Son Muang municipality, Huay Khao Gum sanitary district, Phayao Muang municipality, Prang sanitary district, Klong Wiang sanitary district, and Nan Muang municipality. They will play roles in marketing, service industries, and employment. The Ministry of Interior and the National Economic and Social Development Board will jointly bring about this development.

4.4 Measures to diversify both agricultural production and non-agricultural production and services in order to generate additional employment and income.

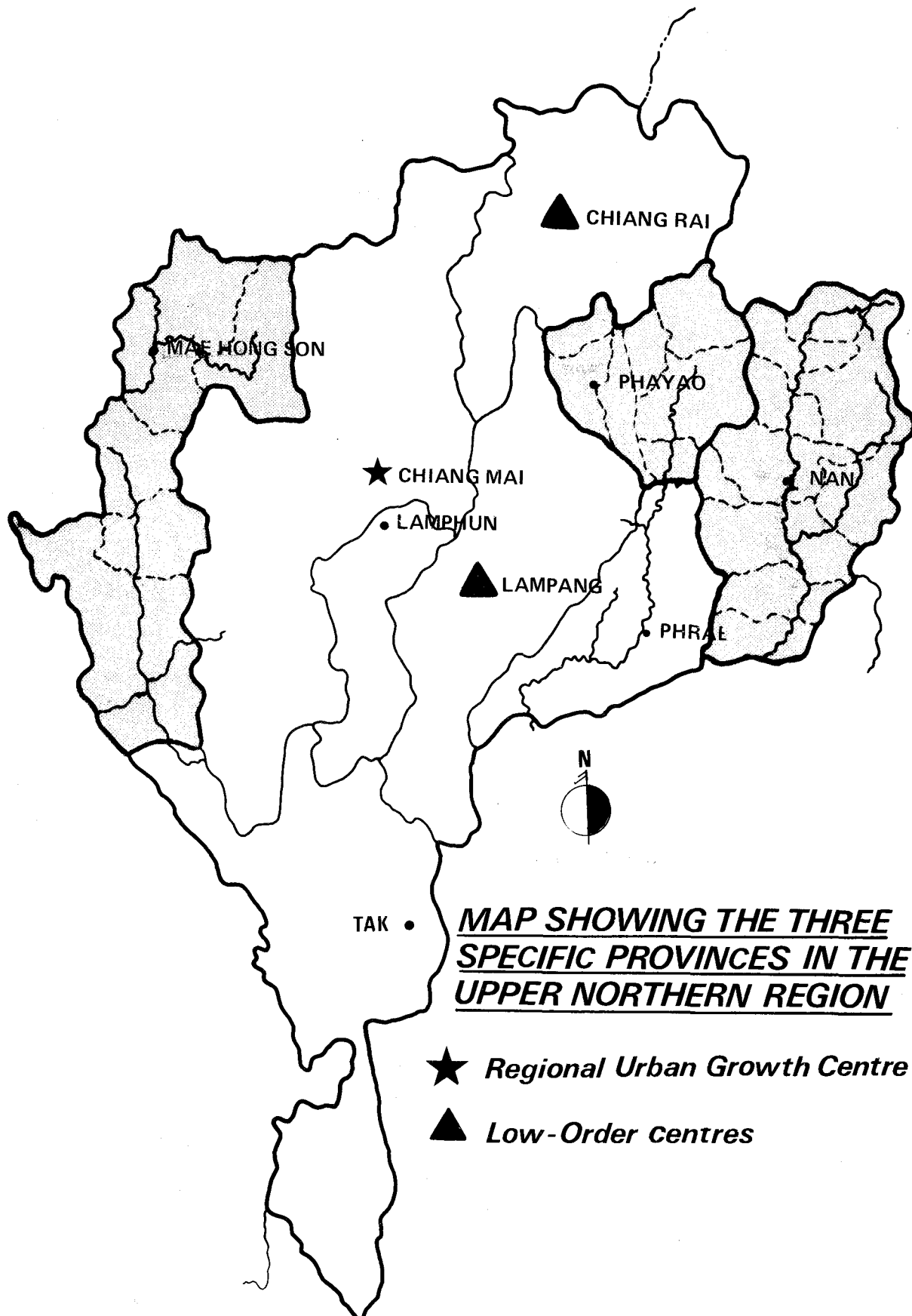
4.4.1 Measures to diversity agriculture from crop production to livestock and inland fishery are as follows:—

(1) Deserted land, preserved pasture land, natural water resources and irrigated areas will be rehabilitated for livestock and fish farming. This will apply to all districts in the three provinces.

(2) Increased supplies of breeders of fish, cattle, pigs, and poultry will be distributed to farmers. In addition, agricultural credit, veterinary services, and artificial insemination services will be made available to farmers in the target areas.

(3) Training and extension activities to promote new production techniques and marketing of livestock will be provided in all districts of the three provinces. As for inland fishery development, the districts of Mae Charim, Thung Chang, Pua, Muang, and Tha Wang Pa of Nan province; the districts of Chiang Kham, Mae Chai, Muang of Phayao province; and the districts of Mae Sariang, Mae La Noi and Muang of Mae Hong Son province will be given special emphasis.

UPPER NORTHERN REGION



**MAP SHOWING THE THREE
SPECIFIC PROVINCES IN THE
UPPER NORTHERN REGION**

- ★ *Regional Urban Growth Centre*
- ▲ *Low-Order Centres*

4.4.2 Promotion of small-scale and cottage industries, mining and tourism.

(1) The private sector will be encouraged to invest in small industrial enterprises, particularly in the processing of agricultural products, simple food processing, and handicrafts using local raw materials. The government will organise training courses on marketing and production techniques, and ensure that adequate credit will be offered to these small-scale and cottage industries.

(2) The Small Industry Finance Office (SIFO) will be in charge of extending credit to small-scale and cottage industries to ensure that their credit needs are satisfactorily met.

(3) Tourist attractions will be developed. Tourism-related activities will be promoted, involving the construction and improvement of parks and recreation areas, rest stations along the highways, and the setting up of information centres to provide useful knowledge on forest conditions along the route to Mae Hong Son province. Kwan Phayao (a fresh water lake) in Phayao province will be rehabilitated to become a tourist attraction.

(4) There will be an intensified survey and exploration of mineral resources. In the areas where there are abundant supplies of wolfram, fluorite, lead, and tin, etc, measures to regulate proper land use programmes will have to be introduced. The private sector will be encouraged to undertake investments in the development of the mining industry in specified areas. The government will provide basic infrastructural needs, technical knowledge and vital information on efficient mining operation and effective nature conservation.

4.5 Measures to prevent and rehabilitate the deteriorated land and forests in watershed areas.

4.5.1 Protection and control of the remaining forests from being further encroached and devastated. The following measures will be carried out :—

(1) Forest boundaries must be clearly marked. At the same time, the efficiency of forestry officials will have to be improved to be proportionate with each forest area's needs. Voluntary forest guards will be encouraged to co-operate with local officials from the Interior Ministry in giving assistance that may be needed. The entire provinces of Nan and Mae Hong Son, and the districts of Chun, Pong, Chiang Muan and Chiang Kham of Phayao province will be included under the scheme.

(2) It will be necessary first to survey the location and size of the highland communities, and to encourage the people to settle down permanently. The population growth rate should be reduced. It is planned that **the growth rate of the hilltribe people, in watershed areas in particular, must be reduced to 1.5 per cent per year.** Thus, family planning will be introduced. The area to receive special attention will be all the districts of Mae Hong Son province; Muang, Tha Wang Pha, Pua, Mae Charim, Chiang Klang, Thung Chang districts and Ban Luang sub-district of Nan province; and Pong and Chiang Kham districts of Phayao province.

(3) The private sector, especially the owners of tobacco curing factories must be encouraged to plant fast growing trees to use as fuelwood. To assist in this efforts, the government will provide technical assistance and seedlings to meet local requirements.

(4) Forest land outside watershed areas which has already been exploited will be allocated to the farmers for agricultural production. At the same time, the government will have to introduce plans to set up a system of "forest villages," model villages" or "security villages." Technical assistance will have to be forthcoming in the form of high yielding seeds and other necessary infrastructural services. The scheme will be directed to those areas with the largest pressure on agricultural land which includes the whole provinces of Mae Hong Son and Nan and Pong and Chiang Muan districts of Phayao province.

4.5.2 The following measures are designed to improve and rehabilitate devastated lands and forests.

(1) Catchment protection reforestation schemes in the encroached forest areas will be implemented by introducing trees with soil conservation qualities. The area covered annually will not be less than 30,000 rai. High priority will be given to the watershed areas of the Nan river in Nan Province, and to the districts of Chiang Muan, and Pong of Phayao province which are the watershed areas of the Yom river.

(2) Farmers will be taught and trained in the techniques of soil conservation so that they can perform the work by themselves. In those areas where forest land has deteriorated too much, i.e. beyond the farmers' effort to rehabilitate them, government agencies which are directly responsible for the provision of such services should take over. All districts in Nan province, the districts of Mae Sariang, Mae La Noi, Khun Yuam, and Muang of Mae Hong Son province; and the districts of Chun, Pong and Chiang Muan of Phayao province will be covered.

4.6 Adopt measures to encourage the plantation of other cash crops to replace opium, thus, also slowing down shifting cultivation and, encroachment of forests, as well as realizing the government's policy of stopping the use of narcotics. These measures are as follows:

(1) Research will be undertaken to introduce those highland crops which are suitable to the cool highland areas, and which will have a potential for marketing and high prices. All the areas where the hilltribe people grow opium will be included. They are the districts of Mae Sariang, Mae La Noi, Khun Yuam and Pai of Mae Hong Son Province; and the districts of Pua and Thung Chang of Nan province.

(2) Highland crops which have been successfully researched will be promoted. Examples are coffee and some fruit trees which grow well in cool weather. The government should encourage the hilltribe people to grow these crops by providing them with seeds, technical knowledge and production techniques.

4.7 Security measures to reduce violence and the influence of infiltration will be adopted. Relevant development agencies should coordinate their efforts in accordance with security development policies, and must be prepared to take over from military authorities once they have pulled out. The area to be included will be all the districts of Nan province; the districts of Chiang Muan, Pong and Chiang Kham of Phayao province; and the districts of Mae Sariang, Mae La Noi, and Khun Yuam of Mae Hong Son province.

CHAPTER 6

DEVELOPMENT OF THE SOUTHERN BORDER PROVINCES

Southern border provinces cover an area of 13 million rai and have a population of 2.2 million, representing 37.6 per cent of the Southern population. The economic structure of the border provinces is heavily dependent on agriculture. In 1979 the Southern border provinces had an output value of 11,136 million baht, which is 33 per cent of the Southern Gross Regional Product. For the the past five years the annual growth rate of these provinces has been 8.7 per cent, which is lower than the annual regional growth rate of 10 per cent. Agriculture is the main productive sector accounting for 38.5 per cent of total output; whereas the industrial sector has an output value of only 7.8 per cent. Wholesale and retail trades claim 15.2 per cent of total output value. The economic structure of the Southern border provinces has an obviously narrow base. It still requires development and further diversification in the industrial and commercial sectors. The people in the provinces are relatively poor with a low per capita income of only 5,177 baht, compared with the regional per capita income of 5,858 baht per year.

The Southern border provinces of Pattani, Narathiwat, Satun, and Yala have a distinct social structure. The majority of the population (80 per cent) are muslim and prefer to communicate in Javi rather than Thai. Some people cannot speak Thai at all. They have a different cultural system and tradition from other areas. One possible exception is Satun province, where the majority of the people are Muslim but, as a general rule, speak Thai. Such social conditions have posed serious problems for the government's development efforts and have led to other social-psychological and security problems of the border provinces.

1. Summary of problems.

There are three major problems in the Southern border provinces, ranging from economic, social-psychological to security problems.

1.1 Economic problems. The structure of economic production is narrow and is not diversified. Main activities are in rubber plantations and fishery, the marketing for which is dependent on foreign countries. There are a large number of farmers who own no land. Sufficient agricultural land is not available, averaging only 12 rai per household. In Pattani and Narathiwat where fishery is the other main activity, the people have been increasingly impoverished as a result of diminishing aquatic lives, higher costs of production and low sale prices. The development policy will be directed towards readjusting the production structure by widening the economic base, thus enabling the economic activities of the border provinces to be more complementary and integrated into the regional and national economic structure. The problems of poverty, which affect the landless farmers, and in particular small fishermen and small rubber plantation owners, must be speedily resolved.

1.2 Social-psychological problems. The unique social structure of Pattani, Yala and Narathiwat has created problems in the management of education, family planning, and social welfare programmes. There are a great number of poverty stricken children and orphans, and the government is particularly intent on promoting youth and women activities. ←

1.3 Security problems. Existing social-psychological problems have brought about terrorist activities in various guises. The inefficiency in the administrative system, the style of governing and the poor coordination of government agencies in the area adds to the seriousness of the situation. Therefore, all these problems must be urgently addressed.

2. Targets.

The development of the Southern border provinces must be in harmony with the overall targets of the Fifth Plan, which aims at diversifying the economic base of the provinces. Provincial economic activities must also be more integrated with regional and national activities. For the Plan period, attention will be given to those aspects of the social development which emphasizes education, youth and women development, and poverty alleviation programmes. Consequently, the following targets have been set.

2.1 Readjustment of the economic structure and diversification of economic activities.

Industrial and agricultural marketing development at Songkhla-Hat Yai, which is to be developed as a regional growth centre for the development of the Southern border provinces, will be primarily stressed.

2.2 Social development at Pattani, Yala, Narathiwat and Satun.

There will be improvement in education services, promotion of youth development, and the role of women's groups so that the people will feel more socially integrated and identify more with Thai values.

2.3 Poverty alleviation in rural areas.

The groups are divided as follows:—

(1) Poor fishermen in Tak Bai and Muang districts of Narathiwat province; Panare, Sai Buri, Nong Chik, and Yaring districts of Pattani province where a total of 5,430 families is involved.

(2) Landless farmers with a total of 1,200 families.

3. Development measures.

In order to achieve the Fifth Plan development targets applicable to the Southern border provinces, the following measures will be taken.

3.1 Measures to readjust production structure and the diversification of the economic base.

3.1.1 Industrial development.

It will be necessary to set up an industrial estate and an export processing zone at the regional urban centre of Songkhla-Hat Yai so that it will become a centre for the development of the rubber and fishing industries. There will also be a study undertaken to establish a provincial industrial development zone at Pattani and the development of small industries in the Self-Help Land Settlement at Rattaphum.

3.1.2 Establishment of a central market for agricultural products.

A Rubber Public Warehouse Organisation will be set up and co-operative groups will be encouraged to establish their own rubber smoking houses in order to dispense with middlemen's services. A central market for agricultural products will also be set up in Songkhla.

3.1.3 The economic base of the Southern border provinces must be diversified and developed so that its economic activities will be more integrated into the regional and national economies.

(1) The regional urban centre of Songkhla-Hat Yai will be developed, which will include the expansion of basic urban infrastructural services ranging from electricity, telephones, housing, and the setting up of an Institute for Skill Development in Songkhla province.

(2) The construction of a deep-sea port at Songkhla province, improvement of water transport, roads, and railway system will be properly co-ordinated and completed within the Fifth Plan period.

3.2 Social development measures to implant the Thai cultural identity are as follows:—

(1) Compulsory education will be expanded to cover all areas with special emphasis on the education of small children.

(2) Islamic studies, at all levels, will be a part of the courses offered in all government education institutions. A centre for Islamic studies at Songkhla University in the Pattani area will also be created to serve as a religious study centre for all levels up to university.

(3) Harmonious religious relations will be promoted. Islamic leaders must be convinced of the importance of the Thai language and a correct understanding of family planning.

(4) Technical knowledge to raise agricultural and industrial productivity will be imparted to the people.

(5) Private schools teaching Islamic education will be encouraged to include other academic and vocational subjects in their curricula.

(6) Educational welfare schools and orphan centres will be established to offer assistance to poor children and orphans.

(7) Youth development programmes will be given top priority in the Southern border provinces.

(8) Development of the role and activities of women in Southern border provinces will also be given top priority.

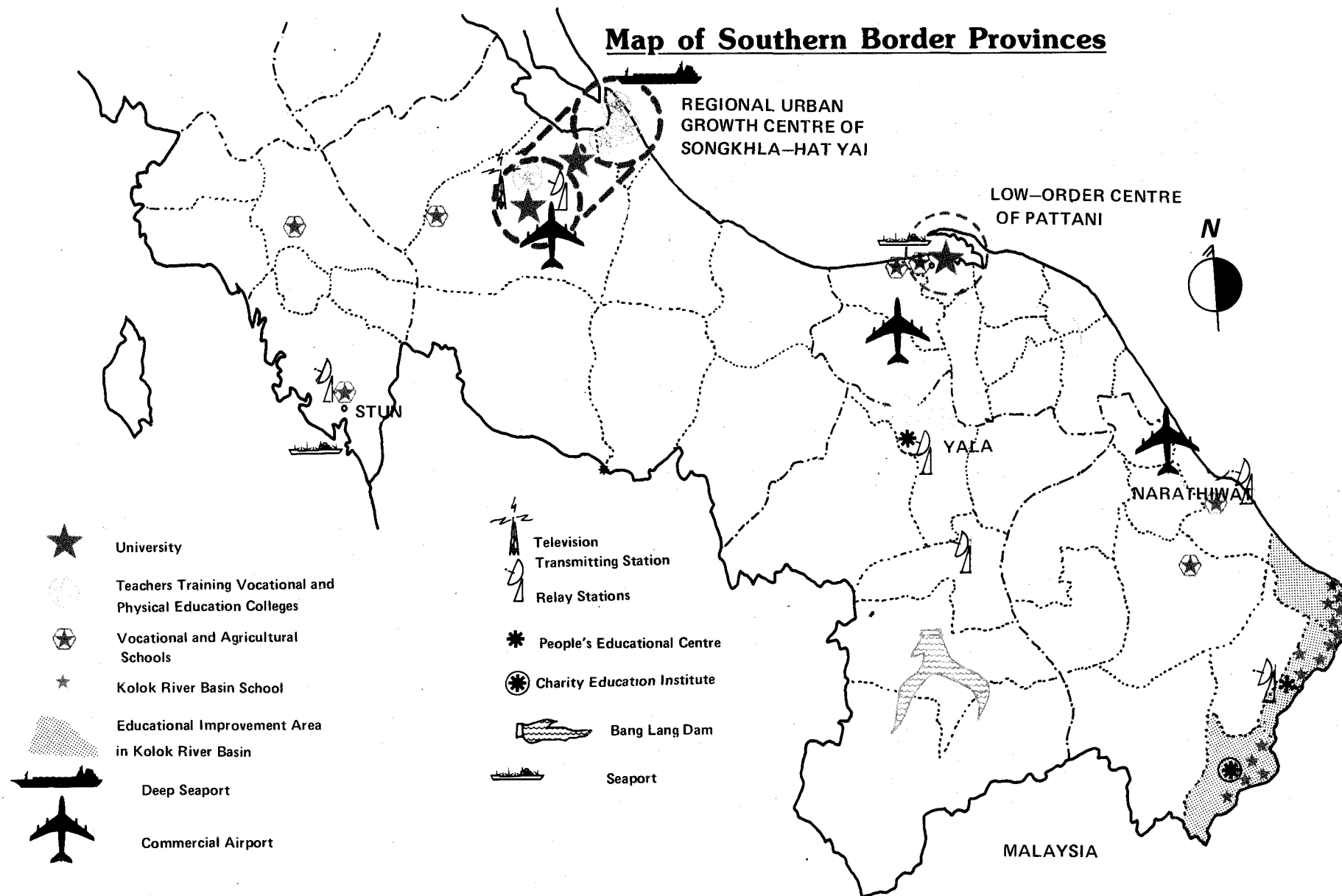
3.3 Measures to solve poverty problems in rural areas.

(1) The poor fishing villages in Narathiwat and Pattani will be given help by establishing a career development project which should increase their income. There will also be projects on health, education, and nutrition in these poor fishing villages. Coastal land management projects will be carried out to help fishing industries in the areas.

(2) Deserted and devastated forest lands will be allocated to the landless farmers in the form of security villages, co-operative villages, and self-help land settlements.

(3) The Pattani irrigation system will be completed, particularly with regard to on-farm distribution canals so that the farmers' poverty problems may be solved. Complementary economic crops will be introduced on small-scale rubber plantations in order to raise additional farmer income. Other general poverty alleviation programmes will also be implemented in these areas.

Map of Southern Border Provinces



CHAPTER 7

URBAN DEVELOPMENT

SUMMARY OF ISSUES RELATING TO THE NATIONAL URBANIZATION TRENDS

National urbanization growth during the past 20 years has been relatively low. The number of people living in urban areas has remained constant when expressed in percentage terms, i.e., representing 17.5 per cent of total national population of 47 million. The major factor accounting for the low urbanization is that in the past the rural people have been able to extend agricultural land to increase their production. Therefore, migration to cities has not been general phenomenon. However, with the land frontier reached and cultivable land exhausted, the future growth of urban areas will be quite unprecedented.

Another salient feature is the unbalanced growth in urbanization. There is up till now only one primate city which is the Bangkok Metropolis, where the proportion of its population has increased from 52 per cent of national urban population to 63 per cent in 1980. The city of Bangkok is 50 times larger than Chiang Mai — the second largest city. One explanation may lie in the fact that Bangkok includes the largest concentration of trade and industrial activities. Banking and financial transactions are all centralised in the Bangkok Metropolis. Production structure and economic activities have been highly concentrated in the Bangkok Metropolis and its nearby provinces. Combined, they represent 39 per cent of gross domestic output. Furthermore, the most congested traffic and the most wasteful energy consumption are to be found in the Bangkok Metropolis. Congestion of the city and bottlenecks in economic activities and urban population have forced the government to allocate a major portion of public sector finances for the maintenance of urban services.

Past urbanization trend indicates that if unbalanced urban growth continues unchecked and is not systematically improved upon so that more economic growth is diffused to the regions, the dominance of the Bangkok Metropolis and its vicinity towns will increase even more.

The government will have to co-ordinate the development of regional urban growth centres, low-order centres and rural communities to serve the national economic restructuring policies in the future. The in-migration to the Bangkok Metropolitan Area must be curbed, concurrently with the effort to reduce its dominant economic position. In this respect, the government has devised a policy to create an alternative location for the development of basic industries in the Eastern Seaboard region. Simultaneously, the Bangkok Metropolis and its vicinity towns will be developed in a direction that will ensure the government's policy of diffusing growth to the regions.

A. Development of The Bangkok Metropolis and its vicinity towns

1. Problems and development issues.

The Bangkok Metropolis continue to retain its characteristics of a primate city. It is the centre of administrative system, trades, banking and location of major industries. Its

basic infrastructural services, both in economic and social terms, are relatively better provided than other cities. Bangkok has dominant economic forces to make other towns and regions its satellites, and has in fact attracted an increasing number of the rural-urban migration. The glaring disparities between the Bangkok Metropolis and the provinces have inevitably brought about a host of problems which can be classified in the following way:—

1.1 The rapid population growth as a result of migrants looking for work in the industrial sectors has posed serious problems to the area, e.g., problems of congestion and inefficient and disorderly land use pattern. This situation is compounded because of a lack of proper city planning. These have resulted in great economic losses in terms of lavishly consumed but scarce energy resources. The congested and traffic-jammed city has to face many other related problems such as environmental pollution, floods, inadequate public utilities and social services, a shortage of housing, and increasing slum areas.

1.2 The development pattern of the Bangkok Metropolitan Area is neither clear-cut nor one-directional. Government agencies responsible for the provision of urban services are autonomous i.e., they are not under one another's authority and have separate budget allocations. Consequently, there is inevitably a lack of co-ordination and co-operation in their services. The Bangkok Metropolitan Administration itself has no authority to co-ordinate the work in accordance with the Metropolitan development plan. Not surprisingly, such services are not only duplicative but of a second rate quality. A further related fact is that the past "solution" has been aimed solely at the city of Bangkok alone disregarding the surrounding towns which could have contributed to a successful solution to its problems. The "one-sided" approach, which is to control the population and city expansion, disregarding the management of the vicinity towns, has failed to develop the city satisfactorily. Considerable government financial resources have been squandered to "solve" the immediate problems of the city.

1.3 The policy to check the growth of Bangkok has not been properly put into practice because of unclear government co-ordination plans which would have acted as guidelines for government agencies in their work operation. Most of the past development projects of Bangkok have been designed to solve immediate problems relevant to a particular agency. In fact, the so-called solution turns out more often than not to be a transfer of the problem from one area to another. No long term and comprehensive solutions have systematically been developed. The necessity for such solutions becomes more pressing when major investment projects are being considered. There is an urgent need to consider the inter-related impacts on all aspects of development projects. A major project such as the Second Bangkok Airport, which is very close to Bangkok is a good case in point. It will be very difficult to control the growth of the urban community and other economic activities because the dominance of the Bangkok Metropolis will easily reach the whole area in no time. Growth and prosperity and its related and familie problems may continue to be concentrated in Bangkok. The location policy of the Second Airport will consequently have to take into account its impact on the expansion of Bangkok.

1.4 The private sector has not hitherto seriously participated in an attempt to solve the problems. There are a number of public utilities and social services which the private sector is capable of offering. But the government has not given encouragement to those who have a vast pool of resources to jointly improve Bangkok. Therefore, a large portion of public funds which could have been channelled for effective regional development has had to be earmarked for solving the problems of Bangkok.

1.5 The rapid increase in urban population is putting great pressure on the services sector which has reached its absorptive capacity to satisfy the urban demands. A section of

the urban poor population are thus inevitably condemned to be without proper housing. The problem is particularly acute among the migrant labourers from upcountry, most of whom are unskilled and are more likely to be given temporary jobs. The housing shortage has forced them to live in slums and shanty towns, which are known to be breeding groups of problems. The high cost of living in the city only helps to multiply the existing problems.

The major development issue is how to slow down Bangkok's population growth and to lessen its economic dominance. Consequently, there must be only one single pattern for the city's development, i.e., under the banner of the "Structural Plan for the Development of the Bangkok Metropolis and its Vicinity Towns." The towns around Bangkok would share in relieving the burdens of the capital and help diffuse growth and prosperity to the regions. Simultaneously, it will be necessary to develop regional urban growth centres and low-order centres in various regions, and in particular the development of the Eastern Seaboard self-region to be the location of the new basic industries. All these combined efforts should contribute to a more balanced national urban system.

2. Development targets.

2.1 Target area. The Bangkok Metropolis and its vicinity towns which include Samut Prakan, Pathum Thani, Nonthaburi, Nakhon Pathom, and Samut Sakhon, will be the target area. The economic activities and land use programmes will be closely scrutinised. The five peripheral provinces will be developed so that they will be able to absorb the economic activities newly decentralized from Bangkok, and to accommodate people from the capital. A successful implementation of this policy would mean an effective slow-down of population growth in Bangkok.

2.2 Population target. Bangkok's population will be limited to 6 million, whereas the five surrounding towns will be planned to accommodate approximately 2.3 million by 1986. Thus, the total population in the Bangkok Metropolis and its vicinity towns will total 8.3 million by the end of the Plan period.

3. Policy guidelines.

3.1 Efforts will be made to develop the urban system in the regions so that it will serve as a counter balance to Bangkok urbanization. The efforts will necessitate the redistribution of population and economic activities to the regions where the regional growth centres, low-order centres, rural communities, and location of basic industries will have been designated. The growth of Bangkok will be slowed down so that the future capital will be the centre of culture, administration, services and economic production which uses only highly skilled labour and sophisticated technology.

3.2 The Structural Plan for the Development of the Bangkok Metropolis and its Vicinity Towns will be implemented. The basic principle of the Plan will be to diffuse growth and decentralize economic activities from the capital to the major communities in the five surrounding towns of Samut Prakan, Pathum Thani, Nonthaburi, Nakhon Pathom, and Samut Sakhon. These communities must develop their capacity to offer employment to the growing population so that they will not seek employment and services in the Bangkok Metropolitan Area. The Bangkok Metropolitan Administration will be the core organization which will coordinate the work plans to improve Bangkok, particularly public utility services. The development drive will have to be circumscribed within the "green belt zone" of the capital. All transport networks and flood prevention schemes will be improved to support the Structural Plan.

3.3 Basic public utility services and vital social services will be provided to the needy urban poor. More priority housing projects will be provided for them and slum and other depressed areas will be improved.

3.4 A special organization will be established and bye-laws will be enacted for the development of the Bangkok Metropolis and its vicinity towns according to the Structural Plan. The organization will require special authority to deal with co-ordination between the five provinces and the city of Bangkok. The basic public utility services will be encouraged to adopt a realistic pricing policy so that such services will be self-financing. The private sector will also be given an opportunity to participate in the investment programmes and management of most of the basic utility services. The government will then concentrate on those projects which will directly benefit the urban poor.

4. Development measures.

4.1 A number of economic activities will be decentralized or relocated to other regions. At the same time, the expansion of economic activities and other basic industries will be limited. The government's major investment projects, such as the Bangkok Second Airport Project, will have to take serious account of the long-term Structural Plan of the Bangkok Metropolis. Finally, the expansion of educational institutions at the university level in the Bangkok Metropolitan Area must be curbed.

4.2 The development of the Eastern Seaboard sub-region to become the location of basic industries will receive strong support from the government. The Eastern Seaboard sub-region will serve as a potent employment generator and accord well with the policy to decentralize Bangkok and diffuse growth to the region in a systematic manner. The development of the Eastern Seaboard will be closely co-ordinated with the development of the Bangkok Metropolis as the former will be capable of employing labour in the newly created industries. The success of development of the Eastern Seaboard will effectively absorb the flow of migrant labour which would otherwise have been directed toward Bangkok.

4.3 The Structural Plan for the development of the Bangkok Metropolis and its vicinity towns will be used as the point of reference in formulating a comprehensive urban plan for the whole conglomeration, and a specific Bangkok Metropolis plan as well as specific plans of the five vicinity towns.

(1) Regional structural plan.

This plan will cover the whole of Bangkok and the five surrounding provinces. There will be designated agricultural land in and around the five towns. But in order to prevent the urbanization of Bangkok from spreading further, there will be a designated green belt zone around the immediate boundary of the city of Bangkok. The development of major urban communities in the vicinity of Bangkok will be conceived in terms of planned development units. These urban centres will be allowed the highest degree of self-sufficiency. They will be expected to be able to provide jobs for the people who would be moving away from the capital. It will be important to ensure the provision of basic infrastructural networks to integrate the various urban centres in the vicinity of Bangkok so as to minimize the traffic volume which has to go through the city of Bangkok.

(2) Structural plan of the Bangkok Metropolis.

The plan also covers some area of Samut Prakan, Nonthaburi and Pathum Thani, which has been designated as a green belt zone. The area will be declared protected agricultural land and flood prevention zone for the benefit of the Bangkok Metropolis.

Two types of land have been classified according to the land use system. They are the land with high population density, and the land with low population density. The land use classification is necessary for the provision of basic public utility services in accordance with the needs of the communities and land use control. Water drainage and sewage disposal networks will be carefully constructed and managed to prevent flooding of the Bangkok Metropolis. There are several major plans to help solve traffic problems, including the mass transit system, the ring road system, the planned railway line joining the Eastern railway station with the Western station, and parallel to the Southern part of the outer ring road, truck terminals in the outskirts, and a principal route traffic system.

4.4 It will be necessary to organize the mass transit system in the densely populated central area so that the traffic will flow smoothly, and so that energy will be conserved. Consideration will be given to the mass transit system between the outer towns and the Bangkok Metropolis and its vicinity, particularly the road networks in the Central region and the Eastern Seaboard sub-region, which will become a new basic industrial complex.

4.5 The railroad and water transport systems will be promoted so that maximum efficiency may be achieved. A railway line will be constructed which will connect the Eastern railway station at Lart Krabang with the Western station at Bang Khun Thian and Taling Chan. The line will be parallel to the Southern portion of the outer ring road so that traffic congestion in the heart of Bangkok can be partially avoided. Development of the water transport system should be concentrated at Samut Prakan and Samut Sakhon provinces, and at the part of the Bang Pakong river which flows past the surrounding towns of Bangkok.

4.6 The government should encourage the private sector to set up truck terminals and central markets in the outskirts of Bangkok so that yet more congestion in the city may be reduced.

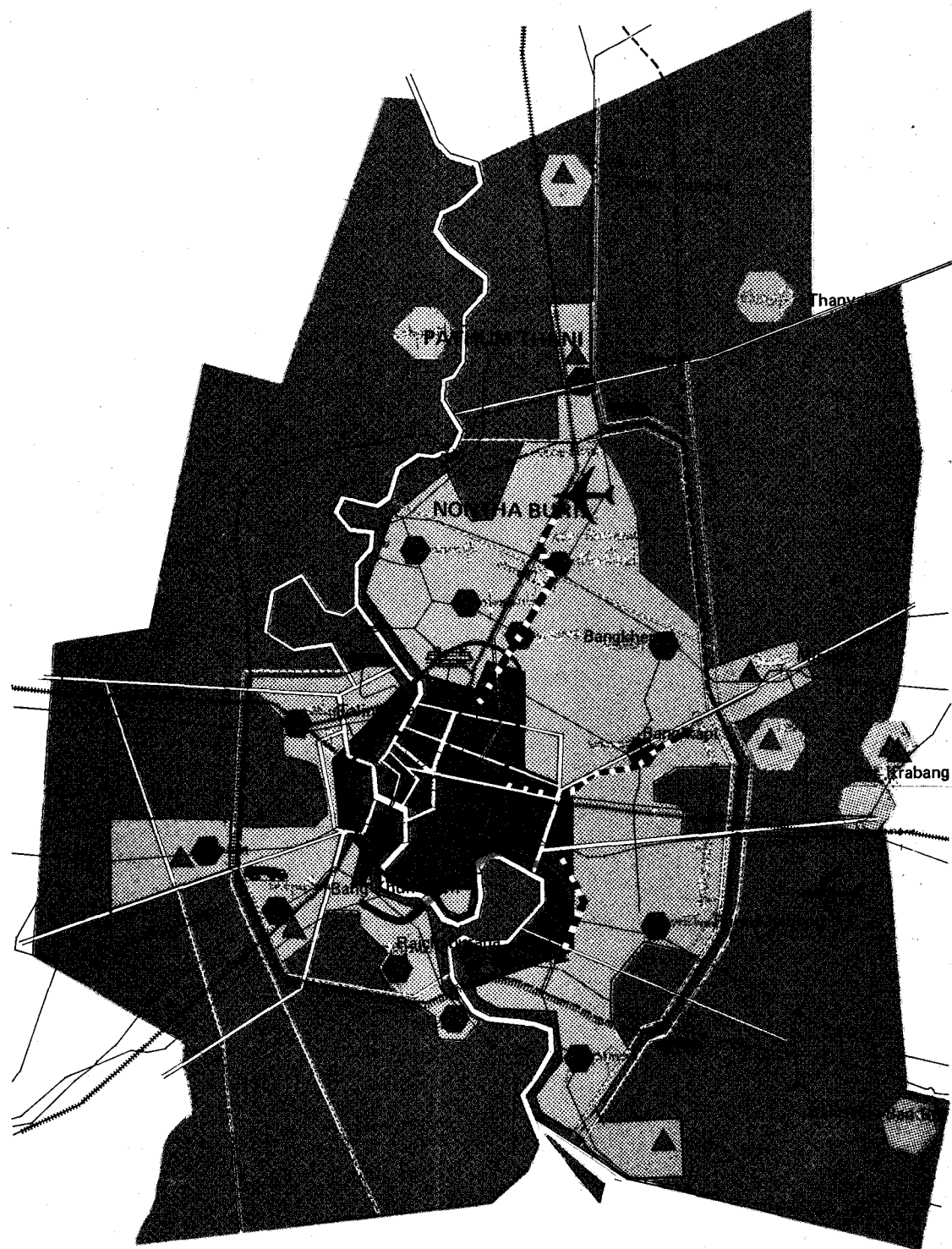
4.7 A study will be undertaken to evaluate the impact of the construction of the Bangkok Second Airport on the expansion of the city of Bangkok. Appropriate preventive measures should be recommended, subject to the growth diffusion policy and the necessity to slow down the expansion of Bangkok.

4.8 Measures will be introduced to improve slums and shanty towns. There will be improvement in the services of waste and sewage disposal, and air and noise pollution prevention.


















4.9 Public utility services will be re-organized and improved so that they will be more financially self-supporting. More appropriate pricing policies will be duly imposed. The government will also introduce taxing policies in the expansion controlled area so that private investment in construction will be diverted outside Bangkok.

4.10 A central organization will be established which will have the responsibility for ensuring the proper pattern of Bangkok development. This organization should have the authority to initiate policies, plans and measures for determining appropriate budget needs to support operations. The organization should be recognized in their function as the coordinator of various development agencies in central administration, local administration and state enterprises, including independent private organizations.

4.11 Outdated laws and regulations will be changed for the improvement of Bangkok. The body of laws and regulations to be affected will be the town planning law, the law controlling land parcellization for construction, the building construction law, the local development law, the tax collection law, and related financial regulations.



Structural Plan of the Bangkok Metropolis

- | | | | |
|---|---|---|----------------------|
|  | GREEN AREA RESERVED FOR AGRICULTURAL PURPOSES |  | RAILWAY LINES |
|  | LOW DENSITY URBAN AREA |  | FUTURE RAILWAY LINES |
|  | HIGH DENSITY URBAN AREA |  | OUTER RING ROAD |
|  | SETTLEMENT OUTSIDE FLOOD PROTECTION AREA (BUND) |  | MASS TRANSIT ROUTES |
|  | EXISTING INDUSTRIAL AREA |  | EXPRESS WAYS |
|  | INDUSTRIAL ESTATE |  | TRUCK TERMINALS |
|  | HIGH DENSITY CENTRE |  | PAHONYOTHIN STATION |
|  | BUND/DITCH AND DIKE (FLOOD PROTECTION SYSTEM) |  | MAIN ROADS |
|  | MAJOR BRIDGES | | |



4.12 Campaigns will be launched to encourage the people to co-operate with the government in looking after public properties, public utility services and the proper environment of Bangkok. Laws and regulations which hinder the improvement of the city will be modified.

B. Regional Urbanization Plan

1. Problems and development issues.

1.1 Existing regional urban centres do not have a sufficiently strong economic base to absorb the growing labour force. This is because the production structure is not diversified, and most industries and businesses are small scale. Existing investment incentives are not attractive enough to successfully disperse industries to the regions.

1.2 Basic urban infrastructural facilities are still inadequate for the development of a regional economic base for the growth of industries and other economic activities in the regional urban centres. The short-comings of facilities also extend to the each of an effective flood prevention control system, inadequate water drainage, and the provision of clean water for human consumption and industries. Furthermore, the telecommunications system, particularly telephone services which is a crucial condition for the development of industries, trades and services, is far from satisfactory.

1.3 The urban land use is not efficient. It is a disorderly mixed land use pattern without any land use control. In some municipalities, the municipal boundary has not been updated or redrawn in accordance with the growth of the community and the expanding economic activities. The municipality is thus incapable of increasing its local tax revenue to improve existing basic urban infrastructures.

1.4 Municipalities are faced with local public financial difficulties, and their management is not efficient. Currently, municipality's revenues are low. Municipalities are also short of qualified local administrators to serve the needs of the expanding urban population and required urban infrastructural management.

2. Development measures.

2.1 **Target area.** Five regional urban growth centres Chiang Mai, Khon Kaen, Nakhon Ratchasima, Chon Buri and Songkhla-Hat Yai will be further developed from the Fourth Plan to be major regional urban centres. The additional six provinces of Phitsanulok, Nakhon Sawan, Udon Thani, Surat Thani and Phuket will also be planned and eventually developed as second-generation urban growth centres.

2.2 **Population target.** The urban population in each of the five regional growth centres will be planned to range between 150,000-300,000 by the year 1986. Necessary social welfare services will be also provided specifically for the urban poor.

3. Policy guidelines.

3.1 The industrial base in the regional urban growth centres will be strengthened so that they will be able to generate more employment. Industries, trading activities and service industries that are labour intensive and utilize locally produced raw materials will be prime target for development.

3.2 Social services of the regional urban growth centres will be expanded to meet growing demand. Slums, ghettos and shanty towns will be cleared. Housing facilities for the poor will be improved. There will be government housing projects for low income people. Education at all levels will be adjusted and expanded to suit the requirements of the local labour market. Public health and medical services in the urban centres will be expanded so that the medical centres will serve as regional medical and training centres.

3.3 Basic public utilities in the regional urban growth centres will receive high priority in urban development in order to serve the industrial and service sectors more adequately.

3.4 More efficient land use control will be provided and the boundaries of municipalities in regional urban growth centres will be realistically redrawn according to expanding economic activities instead of former administrative demarcation.

3.5 Local public finance and administration in regional urban centres will be improved. In the beginning, the central government will have to furnish the local government with financial and fiscal support in order to strengthen the local fiscal position. The expansion of basic infrastructural facilities in the regional urban centres, which require a great deal of investment, will have to be primarily undertaken by the central government at this stage.

3.6 Regional identity will be promoted and strengthened so that regional urban dwellers can be proud of their heritage.

4. Development measures

4.1 Roles of regional urban growth centres will be promoted so that they will become centres of economic growth and social development of each region.

(1) **Chiangmai** will be developed as a trades and services centre of the Upper North. The tourist industry, handicrafts and agro-industries using locally produced raw materials will be intensively developed with proper environmental conservation measures. The area of the Chiangmai-Lamphun corridor will be developed as a centre for export-oriented industries.

(2) **Khon Kaen** will be developed as a centre of trades, services, administration, and education of the Upper Northeast. Agro-industries using local raw materials, other local industries to replace goods from Bangkok, and services industries will be promoted.

(3) **Nakhon Ratchasima**, the gateway to the Northeast and consequently holding a locational advantage over other towns, will be developed as a transport hub for the Northeast. Agro-industries using locally produced raw materials as well as service industries will be related to the development of basic industries in the Eastern Seaboard sub-region since there is a national highway linking Nakhon Ratchasima with Sattahip deep-sea port and the new industrial complex in the Eastern Seaboard sub-region.

(4) **Chon Buri** will be developed as a centre for transportation, trades and services of the Eastern region. The centre will play an important role in trades and services when the basic industrial complex of the Eastern Seaboard is well established. The tourist industry and export-oriented industries will be accorded special emphasis for development.

(5) **Songkhla-Hat Yai** will be developed as the Southern regional growth centre and will be fully integrated into the national economic system. Songkhla will be developed as a main seaport town for exports, whereas Hat Yai will be developed as a centre for transportation, trades and services. The tourist industry, export-oriented industries, and

industries using local raw materials, especially rubber related industries will be promoted. The fishing industry and other industries related to the exploration and the drilling of gas and oil industries in the lower Gulf of Thailand will also be actively promoted.

4.2 The economic base of the regional urban growth centres will serve as employment generation centres. Export processing industries, commercial activities and other small scale services industries will be actively assisted. Agricultural activities surrounding the regional urban growth centres will also be encouraged. The government plans to adopt the following measures.

(1) Industrial estates will be speedily set up in the regional urban growth centres of Songkhla-Hat Yai, Chon Buri and Chiang Mai-Lamphun areas. For other urban centres which already possess some basic infrastructural facilities, industrial zones will be established which would meet the expansion needs of small scale industries.

(2) Medium and long term credit schemes will be devised for industries in the regional urban growth centres by establishing "regional banks" in the centres. The regional banks will help develop their regional financial institutions and reduce the influence of branch operations of commercial banks in Bangkok.

(3) Technical advisory services will be extended to industries and other activities in each regional urban growth centre. These will include management and marketing advisory services for small businessmen and industrialists. There will also be career training and skill development services for upgrading the labour force in the centres.

(4) The marketing system in regional urban centres must be developed so that consumers in rural areas will also be involved. The development of subcontracting industries in the regional urban centres will be promoted in accordance with regional resources and based on comparative advantages for so doing.

(5) The granting of privileges for investment in the Bangkok Metropolis and part of its vicinity, which covers Samut Prakan, Nonthaburi and Pratum Thani will be stopped. Tax exemption period and other fiscal incentives will be done away with. At the same time, privileges will be improved and extended to industries in other regions and in investment promotion zones in regional urban centres. Investments which are more labour intensive and consume more locally found raw materials will be favourably promoted.

(6) Tourism in the regional urban growth centres will be promoted with services and related facilities improved. Major emphasis will be placed on improving the efficiency of the service industry and providing increased safety for tourists. At the same time, natural tourist attractions and the local cultural heritage will be carefully preserved.

4.3 Social services development

(1) The government will improve slums and other depressed areas by providing government housing for the low income groups in the regional growth centres of Songkhla, Chon Buri, Nakhon Ratchasima and Chiang Mai.

(2) Vocational and non-formal education will be stressed to meet the demands of the local labour market.

4.4 Development of basic urban infrastructural facilities

(1) The major regional transport system will be improved and expanded, particularly the construction of a deep-sea port at Songkhla, and the expansion of Chiang Mai's and Songkhla's airports to become international airports. Khon Kaen's airport will also be improved. There will be feasibility studies conducted on the truck terminals in the outskirts of the centres of Chon Buri, Hat Yai and Chiang Mai.

(2) Water supply services will be improved. A master plan for the development of water supply services for every regional growth centre will be prepared so that

the long-term demand may be adequately met. An appropriate water pricing policy will have to be made so that the producing unit will become self-financing eventually.

(3) The telecommunications system, particularly telephone services, which are acutely deficient will be expanded in the regional growth centres to meet both present and future needs. The private sector may be invited to participate.

(4) It will be necessary to develop the water drainage systems, flood prevention schemes, sanitary services, and waste disposal systems in the centres. Roads, bridges, bus stations, and other services will be improved and expanded.

(5) The private sector will be encouraged to share in the investment of necessary basic services so that government agencies, both state enterprises and local government bodies, will be relieved of a portion of the financial burden.

4.5 Land use in regional urban centres

(1) Efforts will be made to require the enforcement of comprehensive town plans and specific town plans of each regional urban centre so that land use control can be efficiently regulated in accordance with the growth of the urban community, the local economy and basic infrastructural facilities.

(2) The municipal boundaries of regional urban centres will be re-drawn to accord with the urban expansion of economic activities. This may encompass some sanitary districts which have experienced rapid economic growth in the past, especially Chiang Mai, Nakhon Ratchasima, Chonburi, and Songkhla.

4.6 Improvement of local public finance and municipality administration in regional urban centres.

(1) The tax collection system for rent and land development taxes will be modified to become a property tax. If this proves impossible, then, at least efforts will be made to make realistic increases in the rates of rent and land development taxes. Municipalities will be granted additional authority in collecting other special taxes.

(2) Systematic mapping and tax accounting methods will be used in the valuation of properties. Heavier penalties will be imposed for tax evasion.

(3) The government will place specific emphasis on projects to expand basic infrastructural facilities in the five regional centres by allocating special funds and loans for the municipalities.

(4) The technical and planning capabilities of municipalities of the regional centres will be strengthened. Planning agencies in these urban centres will be set up to be responsible for making plans and implementing them according to the centres' development priority.

4.7 Strengthening regional characteristics in the urban centres.

The people in regional urban growth centres must be encouraged to maintain and strengthen their unique regional characteristics. The following measures will be taken.

(1) The local cultural heritage of each region must be carefully preserved and made known to the public at large.

(2) Regional urban centres will serve as administrative headquarters for the various government agencies in each region.

(3) Local government bodies will be encouraged to maintain independent role, while at the same time co-ordinating their work with government agencies so that it is mutually beneficial.

(4) National and international conferences will be more frequently held in regional urban centres.

4.8 Regional centre development programme.

Nine plans are included, as follows:

(1) **Industrial promotion plan.** The plan will involve several projects, including: the project to extend loans to small industries; the project to set up regional industrial centres; and the project which will conduct research on the marketing of products of small industries and the linkages between large-scale and small-scale industries.

(2) **Plan to establish industrial estates.** Under this plan, two projects are involved. They are the industrial estate project in the East and the industrial estate project in the South.

(3) **Tourism promotion plan.** A specific project under this plan will be to establish a centre to be responsible for developing safety measures for tourists.

(4) **Agricultural development plan.** Two projects are included the Agricultural loan extension projects, and a project to establish a central agricultural product market.

(5) **Slum improvement plan.** The plan calls for clearing slums and run-down areas and providing low income people with government housing.

(6) **Potable water supply plan.** The plan will involve projects to expand water supply services in regional urban centres and a project to provide water from a new source in Nakhon Ratchasima, etc.

(7) **Telecommunications development plan.** A project for increasing telephone lines will be given high priority.

(8) **Transport development plan.** Important projects include: the construction of a deep-sea port at Songkhla; the expansion of the Sattahip deep-sea port; and the preparation of a master plan for the management of traffic systems in regional urban centres.

(9) **Urban basic services development plan.** The plan will involve projects for water drainage, flood prevention, and sewage and waste disposal.

5. Development of low-order centres and rural communities.

The successful development of regional urban centres will necessitate the development of low-order centres and rural communities so that the diffusion of growth and prosperity can be transmitted from the regional growth centres to the low-order centres and rural communities in the regions. At present, low-order centres and rural communities are not capable of assuming their assigned role because of the following limitations:—

5.1 Low-order centres and rural communities are not effectively linked with the regional urban centres. Such links are necessary in spreading favourable economic effects to the rural areas. It is true that low-order centres do have a rudimentary economic base in that they can generate limited employment; are engaged in some primary processing industries; and are the local commercial centres providing agriculturalists with basic necessities, particularly supplies of factors of production and the marketing of their products. But it is equally true that most of the activities are under the control of private individuals who have no hesitation in maximizing their profits, thus subjecting the farmers to their mercy. The activities of the private sector are neither regulated nor controlled by the government. Therefore, the farmers have limited bargaining power and are treated unfairly in terms of on-farm prices.

5.2 Basic infrastructural facilities and social services in low-order centres are inadequate. The centres are particularly short of water drainage systems, flood prevention schemes, sewage and waste disposal systems, potable water supplies, telephone services, and traffic management, which are vital to the economic production and the processing activities of low-order centres. In turn, rural communities are seriously short of necessary social services. Education, public health and other necessary basic services which can genuinely and effectively support agricultural development are all sorely lacking. Finally, the basic service systems for both low-order centres and rural communities, which at present are very limited, are clearly related.

Low-order centres and rural communities should, therefore, be developed so that they will be able to benefit from the growth and development to be diverted from regional growth centres, particularly in the development of primary industries and in the absorption of the surplus of the agricultural labour force. Low-order centres and rural communities will be developed so that they will become agricultural centres and chief suppliers of social services for local communities. To overcome the limitations noted earlier, the following targets, policy guidelines and measures must be considered.

5.3 Targets.

The targets of low-order centres take into account the population size, their settlement pattern, their economic output and income, the relationship between low-order centres and regional urban centres, and the relationship between low-order centres and rural communities. Consequently, the Fifth Plan has designated the following areas as low-order centres and rural communities.

5.3.1 The North.

Lampang and Chiang Rai will be the low-order centres with the rural communities in the upper Northern portion.

5.3.2 The Northeast.

Low-order centres will include Ubon Ratchathani, Roi Et, and Surin, whereas rural communities will cover the specific areas of Tung Kula Rong Hai and the lower Northeast.

5.3.3 The East.

Rayong and Chachoengsao will be low-order centres with rural communities in the three coastal provinces.

5.3.4 The West.

Kanchanaburi and Phetchaburi will be the designated low-order centres with rural communities in the central portion of the West coast.

5.3.5 The South.

Pattani will be the low-order centre with rural communities spreading around the three Southern border provinces.

5.4 Policy guidelines.

Low-order centres will be developed in order to generate primary employment for the local labour force. The surrounding rural communities will provide social services and agricultural services for the rural population.

The development of low-order centres and rural communities will benefit from the growth diffused from the regional urban centres. The majority of the rural population

will thereby gain from the development effort. Primary industries in low-order centres must be first developed to act as major employment generator for the local people. The industries that must be included are those which relate to the processing of primary agricultural products, handicrafts and other small-scale industries. The government must at the same time expand basic infrastructural services in the low-order centres. The rural communities must be encouraged to play an appropriate role in the management of social services, agricultural services, production, marketing, and the provision of credit. The government must intervene in the allocation of resources and marketing and production in order to minimize the exploitation of the people by influential economic groups.

5.5 Development measures.

5.5.1 Small-scale industries will be developed in low-order centres so that they will be able to absorb surplus labour from the agricultural sector. The government will in particular encourage the setting up of agricultural processing, local raw materials processing, and handicrafts industries. The government will be required to provide assistance in the provision of credit, technical advisory service, the granting of privileges, and training of unskilled labour from the agricultural sector. It should also ensure a constant flow of information regarding the market situation and local labour conditions for both workers and employers.

5.5.2 Rural communities will be developed as main local services centres for agriculture and marketing. They will become central markets for the buying and selling of agricultural products and for the subsequent resale of the products to the main markets.

To assist in realizing these objectives the government will be required to:—

- (1) increase loan funds for agriculture activities in low-order centres and rural communities in order to reduce the incidence of uninstitutionalised loan agreements;
- (2) establish a local unit which will guarantee agricultural prices;
- (3) provide essential inputs especially seeds, fertilisers and pesticides; and
- (4) establish a training centre to provide up to date technical knowledge on agriculture and to provide news for rural agriculturalists. There should also be storage facilities for the stockpiling of agricultural products so that farmers will have a better bargaining power.

5.5.3 Basic infrastructural services will be improved and expanded. Such services are indispensable to the development of low-order centres. Services to be improved and expanded include water drainage systems, flood prevention schemes, sewage and waste disposal systems, expansion of potable water supply services including the preparation of a master plan for their development, telephone services, traffic management system in low-order centres, and housing. Efforts will be made to improve rural education and health delivery services in the rural communities.

Altogether four important plans involving 25 projects are included, as follows:

(1) **Small industry promotion plan.** Several projects are included in this plan. Examples are cottage industries promotion project; credit extension project for small-scale industries and cottage industries. The government will also act as the guarantor for those viable small scale and cottage industries which require credit.

(2) **Plan to increase agricultural productivity and improvement of marketing.** Examples of projects under this plan include the establishment of central markets for agricultural products, and loan extensions for agriculture.

(3) Basic infrastructural services plan. There will be a project to expand and improve the main highways connecting regional urban centres with low-order centres, and low-order centres with rural communities. There will also be a project to expand and improve the supply of potable water in low-order centres.

(4) Social services improvement plan. Projects such as public health services in municipalities and social welfare service for low income people will be implemented.

PART V

DEVELOPMENT OF SOCIAL STRUCTURE AND DISTRIBUTION OF SOCIAL SERVICES

CHAPTER 1

INTRODUCTION

1. Social Conditions and Problems

Two decades of planned development with heavy emphasis on economic growth as a goal in itself have resulted in a highly unbalanced socio-political and administrative structure as evident in the widening income gap and rising social tension. With the rapid population growth in the past, it has been more difficult to improve the living conditions of a major segment of the Thai people. This situation has given rise to the following social issues and problems.

1.1 The social structure has not been timely adjusted to cope with rapid changes in economic conditions. Past development efforts had generated structural changes in the economic system as witnessed in the emergence of the urban industrial base and the transformation of subsistence rural agricultural production into a market economy which has generated many new disciplines for the Thai people. This phenomenon has changed the relationship among people in the Thai society and widened the socio-economic gap. Without adequate measures to deal with this problem, the average income of well-to-do people is now nine times more than that of the farmers. In 1979 the economically well off people constituted only 12.47 per cent of the population, but their average annual per capita income was as high as 55,666 baht as compared with the farmers who constituted about 68.5 per cent of the population with an average annual per capita income at approximately 6,156 baht. (Calculated from the 1979 NESDB national income data and the labour force statistical projection.)

1.2 Despite the evolution of political and bureaucratic systems in 1932, the attitude of the Thai bureaucracy has not changed, from autocracy to the provision of services to the people in accordance with the modern system of development administration. The people or community organizations have not been encouraged to participate or monitor the work of government officials as much as they should.

1.3 The rapid rise in population which is not in proportion with existing economic resource endowments and employment opportunities has contributed to many social problems including migration, congestion and housing shortages in urban areas creating social environment which is conducive to the deterioration of the mental and physical well being of the urban people.

In addition, the changing population structure which is manifested by the increasing number of children and youth has created more dependency burden for the people in economically active groups and necessitated more and more early entry of children and women into the labour market thus, affecting the family institution with an eventual repercussion on the society as a whole.

1.4 The decadence of culture has also created more problems in the society. The achievement of rapid progress in transportation and communication systems from past development has brought about social values which are incompatible with the traditional Thai culture. This is reflected by a more materialistic society and the pattern of consumption which is inclined toward luxurious spending. The transfer of this social behaviour from

the urban to more and more of the rural areas has created a lack of economical austerity among the Thai society. Moreover, inadequate attention has been given by the Government on the propagation of moral and religious values as well as on the strict enforcement of law and order. These shortcomings have resulted in the rapid rise of crimes. During the five years period from 1973-1977, violent crimes, those related to fatal and physical attacks as well as the sexual abuse, stood at an average of 74.4 cases per 100,000 people. The number of crimes related to robberies was also registered at the average of 123 cases per 100,000 people for the same period. Meanwhile, during 1971-1979, road accidents increased from 8,723 cases to 23,120 cases which is many times higher than those killed by terrorists.

1.5 The provision of social services in the past has not adequately contributed to the changing economic and social conditions of the country. During the past two decades the Government had allocated a lot of resources for the development of social services almost 60 per cent of national development outlays. Nevertheless the majority of people particularly those in the rural areas are still inadequately educated and do not have access to occupational training and health education. The nutritional standards of the people are also not in a satisfactory condition. In summary, the situation on the provision of government social services are as follows:—

(1) **Education.** The emphasis of the present education system is on upgrading the quality of the population and is totally unrelated to social needs and the requirements of the labour market. This situation has brought about problems of the labour market. This situation has brought about problems of unemployment in many occupational trades as well as the existence of substantial under-employment. According to 1978 statistics, the total under-employment in Thailand accounted for approximately 29.1 per cent of the total labour force. Moreover, although Thailand is predominantly an agricultural country, its education system has not been adequately designed to improve the living standards of farmers. In addition, the education system at all levels also lacks the emphasis on moral and religious behaviour and good discipline. This has created problems of corruption, selfishness particularly giving low priority to the community interest, and the lack of peace in the present society.

(2) **Public health.** The provision of public health services has not been evenly distributed to the population. At present, district hospitals exist in 51 per cent of the total districts, health centres exist in 82 per cent of the total Tambons, and midwife centres exist in only about 4.5 per cent of the total villages. These shortages have limited the Government capacity to expand the provision of medical care services to cover more people in the rural areas of the country. Only 26 per cent of the Thai population has access to these public health services.

(3) **Food and nutrition.** Food and nutrition programmes which started during the period of the Fourth Plan have enabled the Government to provide services for relieving malnutrition problems among pre-school children for only 10 per cent of poor and under-nourished children in the country. There is still inadequate support given to the production of food for household consumption or to meet the demand in deficient communities. Nutrition education has not been available for people living in remote areas.

(4) **Social welfare.** Compared to the needs, social welfare services are still inadequate. Rapid economic growth in the past has brought about many social costs and suffering to a large portion of people who lack opportunities and are living in a disadvantaged position in the society. The unfortunate people have to face problems of inflation, unemployment, and sheltering. The Government has also been unable to provide adequate social services to those who cannot help themselves such as the handicapped, the crippled and the deprived people. In 1979, the Government was able to provide services to only 5.8 per cent of children

and young people who had problems. Also in 1980, only 0.06 per cent of the handicapped people had access to Government welfare services. This inadequacy of public welfare services is considered to be a serious social problem which affects social stability and justice. Hence, it is urgent that more effective measures have to be devised so that such services can be expanded to cover more of the population.

In addition, in order to solve social problems, there is a need for the Government to place more emphasis on the provision of other important services such as the protection of life and property, consumer protection, drug prevention and suppression, as well as recreational facilities for children and youth.

1.6 The main constraint inhibiting successful social services delivery is embedded in the emphasis on the free hand-out nature of the system rather than the promotion of a self-help spirit among the target groups. This approach has created complacency on the part of the people in asking for their rights to welfare services without due consideration to the duty they should have for their society.

Moreover, various social welfare agencies which are mostly government-run have not yet exercised their fullest responsibilities. Existing rules and regulations are also main constraints in the operation of welfare services. These have brought about delay and the lack of quality in the provision of services to meet the actual needs of the people and communities.

Despite its budget constraint, the Government has not yet devised definite measures to mobilize resources and cooperation from the private sector to supplement public efforts in social welfare development. This shortcoming has also prevented a more even distribution of social services to the people, particularly in rural areas.

2. Long-Term Social Development Objectives

Since social development is a long-term process, it is necessary to set a long-term goal as a guideline for the identification of short-term policies and operation. This long-term goal which reflects the desirable structure of future Thai society can be stated as follows:—

“To aim at the development of a peaceful and just society for life and property, the people must be well fed and healthy under the constitutional monarchy and the society must be able to adjust in accordance with changing economic, political and administrative conditions.”

In order to attain this long-term goal, social services must be fairly distributed and the related structure must be developed to create opportunities for the people to:—

- (1) Enjoy the rights and duties according to individual status and to play a role in the undertaking of a suitable and efficient occupation.
- (2) Enjoy the rights and duties in self-government under a democratic system of government.
- (3) Be well disciplined and cultured suitable to changing environmental conditions.
- (4) Have equal access to various public services and an opportunity to participate in the development process in order to narrow the income gap.

3. Policies and Guidelines

To achieve the above-mentioned objectives, the following policies and guidelines in the development of social services are to be applied during the Fifth Plan:—

(1) Accelerate the reduction of the population growth rate to an appropriate rate with emphasis on the population distribution pattern that will preserve a rural and urban environmental balance.

(2) Adjust the social structure to create opportunities in the increase of income and an improvement in the quality of life for the majority of people in backward areas so that they can participate more fully in the national development process.

(3) Acquaint the people with their rights and duties in self-government under a democratic constitutional monarchy.

(4) Promotion of a well disciplined, cultured and religious society in accordance with changing economic and social conditions.

(5) Development of those target groups of people who are mostly shouldering the social costs particularly women, children and youth, hilltribes people.

(6) Distribution of social services to reduce inequality. The public welfare services will only be rendered to those who cannot help themselves.

4. Targets and Specific Measures

The achievement of social services development in accordance with the above mentioned policies requires the implementation of various economic and administrative measures such as direct and indirect taxation, land reform, distribution of ownership pattern, and the decentralization of power to encourage the people's participation in development. These measures have already been specifically mapped out in Section 2-3 and 8 of this document.

In this Chapter only measures which are directly relevant to the development of social services will be mentioned. These consist of the following:—

4.1 Emphasis on practical training. Practical training in rights and duties will be emphasized at all levels of the learning process including in school and out-of-school education.

4.2 Institutional revitalization. Institutions at household, school and temple levels will be encouraged and revitalized to play their practical roles in the establishment of social values, and promote moral and ethical standards among children and youth of the nation.

4.3 Coordination with mass media. Coordination will be undertaken to encourage various mass media to play a more active role in the dissemination of knowledge on civil rights and duties, and the transfer of information with regard to societal values.

4.4 Setting up guidelines for the development of target groups in a comprehensive manner to promote their effective participation in socio-economic and political development.

4.5 Population and its qualitative and moral development. Increasing the role of the private sector in family planning activities will be encouraged to supplement the Government's effort in order to accelerate the reduction of the population growth rate to 1.5 per cent by the end of the Plan. To date, the population master plan has already been completed. However, annual operational plans for both the public and private sectors, including the mobilization of international cooperation particularly among ASEAN countries, are still required. This would be carried out with emphasis of the impact of the population distribution pattern on the environment. At the same time attention will also be given to the development of the quality of human resources together with moral development emphasizing social values and ethical standards.

4.6 Distribution of social services. Essential social services will be distributed to poor rural dwellers in remote areas and to those who cannot help themselves with the objective of developing a self-help capability among these groups.

(1) **Education.** The Government will concentrate on the development and expansion of compulsory education aiming at the enrollment of all children in the age group of 6 years. Emphasis will also be given to the development and expansion of lower secondary education and out of school education particularly in rural areas. For the expansion of higher secondary and university education, the investment by the private sector will be encouraged with the provision of technical assistance by the Government.

(2) **Health care.** The Government will emphasize the promotion of primary health care through self-help by training the people and dissemination of information. In addition, preventive measures will be emphasized alongside with treatment. A clean water supply will also be provided on an accelerated basis to meet the demand of both the urban and rural population. To this end, a master plan and an operation plan of various agencies concerned will be formulated specifying clearly the service areas and targets.

(3) **Food and nutrition.** Malnutrition problems will be corrected through education and dissemination of information on nutrition. In addition, a nutrition surveillance system will be introduced to identify malnutrition victims. Support food will be provided to children with severe malnutrition problems and at the same time production of these supporting foods will be encouraged in those communities with severe malnutrition problems with the major emphasis directed to poverty areas.

(4) **Security in life and property.** The operation plans of each agency concerned with public safety will be drawn up in accordance with the master plan. Education and training on preventive measures and self-help through mutual cooperation will be carried out for both urban and rural inhabitants. The quality of the personnel concerned with crime prevention and suppression will be strengthened so that they can exercise their duties strictly in line with the judicial process.

(5) **Social welfare.** The nature, structure and method of the provision of social welfare services will be improved and adjusted so as to promote a self-help capability among the people in the longer term. In addition more effort will be given to the mobilization of local resources and organizations in order to expand the coverage of social welfare services. To this end the Government will play its role as a coordinator and in providing technical assistance.

5. Resource Allocation

Total development outlay for social development during the Fifth Plan is roughly in the same proportion with that of the previous Plan. The allocation of social development resources will be mostly directed towards the provision of basic social infrastructural services to promote self-help among the people. Local agencies and the private sector will also be encouraged to participate in investments and shoulder the burden of social development.

6. Management and Organization

Problems on management and organization are major handicaps impeding work on social development which must be rectified along with the implementation of other measures. During the Fifth Plan period a master plan for each issue of social development will be formulated defining clearly the scope of work and responsibility of each responsible agency. An annual operation plan of each agency concerned will also be prepared specifying responsibilities of both core and supporting implementing agencies, the details of which appear in Chapter 6.

Table 1.1
Summary of Social Services Development Targets
of the Fifth Plan

Plan/Programme	Targets	
	Reduction of Problem	Coverage
1. Population and Environment		
1.1 Reduction of Population Growth	— Reduce population growth rate to 1.5 per cent per year by the end of 1986	
1.2 Conservation and Rehabilitation of Environmental Conditions		— Environmental development in major cities and Bangkok Metropolitan Area through the creation of additional public parks. — Improvement of water pollution condition in the Chao Phya Ta Cheen, and Bang Prakong rivers and the upper part of the Gulf of Thailand.
1.3 Promotion of Cultural Development		— Cultivation of religious practices among children and youth and the public in general as a means to improve their careers and livelihoods.
2. Distribution of Social Services		
2.1 Education Development	— Reduce illiteracy rate from 14.5 per cent in 1981 to 10.5 per cent in 1986 with emphasis on people living in poverty areas.	— Provision of education to pre-school children covering 35.4 per cent of children in this age group. — Provision of elementary education to cover 97 per cent of the population in this age group.

Plan/Programme	Targets	
	Reduction of Problem	Coverage
		<ul style="list-style-type: none"> – Provision of lower secondary education to cover 48.3 per cent of the population in this age group. – Provision of higher secondary education to cover 30.9 per cent of the population in this age group. – Provision of university education (excluding open university) to cover 4.8 per cent of the population in this age group. – Provision of non formal education to 1.5 million persons annually.
2.2 Public Health Development	<ul style="list-style-type: none"> – Reduce morbidity and mortality rates from major diseases 	<ul style="list-style-type: none"> – Extension of public health services to cover every district, tambon, and village. – Expansion of communicable disease prevention service to cover 70 per cent of the target group. – Expansion of the free treatment programme for lower income people according to established regulations.
2.3 Food and Nutrition	<ul style="list-style-type: none"> – Eradicate protein calorie malnutrition of the third degree which exists among 2.2 per cent of pre-school children. – Reduction of protein-calorie malnutrition among 40-50 per cent of school aged children by 50 per cent. 	<ul style="list-style-type: none"> – Provision of supplementary diet to 0.23 million infants and pre-school children who are suffering from protein-calorie malnutrition of the third degree. – Promotion of nutritional improvement among 11 million school aged children annually.

Plan/Programme	Targets	
	Reduction of Problem	Coverage
2.4 Development of Safety in Life and Property	<ul style="list-style-type: none"> — Eradication of protein-calorie malnutrition and anemia among pregnant and lactating mothers. 	<ul style="list-style-type: none"> — Provision of nutrition education for 1.3 million of pregnant and lactating mothers annually.
	<ul style="list-style-type: none"> — Reduction of the crime rate on the assault of life, physical freedom to less than 75 cases per 100,000 population. 	<ul style="list-style-type: none"> — Increase the rate of suppression to halt crimes on the assault of persons by more than 30 per cent
	<ul style="list-style-type: none"> — Reduction of the crime rate on the assault of property to lower than 100 cases per 100,000 population. 	<ul style="list-style-type: none"> — Increase the clearance rate of crime committed on the assault of property by more than 58 per cent.
	<ul style="list-style-type: none"> — Reduce the road accident rate by an average of 3 per cent annually. 	
	<ul style="list-style-type: none"> — Reduction of the road accident mortality rate by about 1 per cent annually. 	
3. Social Welfare		
3.1 Prevention and Suppression of Drugs		<ul style="list-style-type: none"> — Provision of education on the prevention of drug addiction for 10.38 million of in school and out-of-school youths.
3.2 Social Welfare		<ul style="list-style-type: none"> — Provision of welfare services to needy target groups so that they can be able to help themselves. The target groups include the following:— — Problem children and youths, totally approximately 500,000 — Women in certain categories, totally approximately 40,000.

Plan/Programme	Targets	
	Reduction of Problem	Coverage
3.3 Labour Welfare	<ul style="list-style-type: none"> — Reduction of illness attributable to dangerous working conditions by 5 per cent annually. — Limiting the number of industrial and small agricultural establishments which do not comply with the Labour Protection Act at not more than 20 per cent annually. 	<ul style="list-style-type: none"> — Old, crippled and handicapped people, totally approximately 70,000 — Provision of investment funds to approximately 3.7 million low income person to promote professional work. — Provision of welfare services to approximately 7.5 million persons who suffer from natural calamities.
		<ul style="list-style-type: none"> — On work conditions and security, emphasis will be placed on those who work in business and industrial establishments with more than 50 employees. coverage will extend to approximately 70,000 persons annually as well as farmer groups utilizing pesticide and insecticide on a regular basis. — Improvement and expansion of workers compensation funds, including off duty sickness to cover those industrial establishments which employ more than 10 workers throughout the Kingdom.
3.4 Sport and Recreation		<ul style="list-style-type: none"> — Provision of recreation facilities in various forms as follows:- — Sport areas and buildings in 175 districts.

Plan/Programme	Targets	
	Reduction of Problem	Coverage
4. Target Groups 4.1 Women Development 4.2 Development of Children and Youth 4.3 Hilltribes Development		<ul style="list-style-type: none"> — Establishment of 275 libraries at the district level and at tambon level with more than 15,000 population per unit. — Construction and improvement of public parks and religious sites to service the people on a nationwide basis.
		<ul style="list-style-type: none"> — Provision of basis of out-of-school education for women of all age groups, representing not less than 90 per cent of total female population. — Provision of training for 5.6 million women between 12-44 years old who earn an per capita income of not more than 5,000 baht annually.
		<ul style="list-style-type: none"> — Provision of professional training in line with local conditions for all school aged children and youth between the ages of 6-25 years old.
		<ul style="list-style-type: none"> — Development of the hilltribes people into qualified Thai citizens enjoying full legal rights and duties such coverage is to extend to the 15 per cent of hilltribes people who now receive Government services.

Plan/Programme	Targets	
	Reduction of Problem	Coverage
5. Target Areas		
5.1 Poverty Areas		<ul style="list-style-type: none"> — Covering 216 districts and 30 sub districts in 37 provinces.
5.2 Major Cities and Bangkok Metropolitan		<ul style="list-style-type: none"> — The development effort will be accelerated in depressed areas of major cities and the Bangkok Metropolitan Area.
5.3 Security Areas		<ul style="list-style-type: none"> — Covering the national defense areas along the border, strategic development areas and special areas which have security problems.

CHAPTER 2

POPULATION, MANPOWER, MORAL AND ENVIRONMENTAL DEVELOPMENT STRATEGIES

To attain the objectives in social development and social justice, there is a need to improve the quality of human resources in urban and rural areas, in terms of the considered necessary to improve the quality of life and moral development. The emphasis will be placed on the improvement of social values and ethical standards in order to raise the consciousness of the people so that they can participate in the solution of problems. Development strategies in each field are presented below.

A. Reduction of Population Growth Rate

1. Background and Problems

Human resources of a country are one of its most important resources, have a significant role to play in economic, social and security development. During the past 20 years, the Thai population had increased rapidly at the rate of more than 3 per cent per annum, bringing about certain undesirable changes. The proportion of children population was higher than that of the working age population, thus each of working families now has a high dependency ratio. The rapid rate of population growth also increased the Government's financial burden in providing in the provision of various social services. Moreover, this rapid growth has brought about other social problems such as poverty, the shortage of land for cultivation, an uneven distribution of population, urban congestion, decadence of culture and the deterioration of the mental well being of the people.

Consequently the Government has continued to place major emphasis on reducing this rapid growth. For example the target for the Third Plan called for reducing the population growth rate from 3 per cent annually to 2.5 per cent by the end of the Plan period. The Fourth Plan called for a further reduction to 2.1 per cent by the end of 1981.

The population targets during the Third Plan, emphasized the reduction of population growth rate in terms of quantity only. Fourth Plan encompassed other aspects of a population policy as well including improvements in the quality of population and consideration of an improved population distribution and human settlement pattern. Despite achieving a reduced growth rate of 2.1 per cent in 1981, this rate of growth is still considered to be high for a developing country like Thailand. Although the proportion of children population to the total population is expected to decrease during the Fifth Plan period, the growth rate of the labour force as a proportion of total population, will increase at a relatively high rate of approximately 3.2 per cent annually. Moreover, the adoption of modern science and technology for national development without due consideration given to its repercussions and other accompanying problems has brought about rapid changes in economic, social, demographic, and environmental conditions which have made life increasingly complex. These shortcomings need to be urgently corrected.

Major problems which impede the implementation of work on the reduction of population growth rate which have to be rectified on an urgent basis during the Fifth Plan period are as follows:—

1.1 Lack of family planning services in remote areas due to the shortage of physicians and nurses. Despite intensive efforts to train public health personnel, e.g., nurses and sanitarians to perform sterilizations and auxiliary midwives to insert IUD's, the lack of personnel is still a problem due to the long and difficult process involved in obtaining authorization from the Ministry of Public Health and the Medical Council for paramedical personnel to provide clinical family planning services.

1.2 Low family planning achievement in the Southern border provinces due to factors such as culture, political activities and terrorism which have made it difficult to attain family planning targets and to ensure the safety of health workers.

1.3 The implementation of selected population activities is not yet consistent with population targets and policies. In particular, the government has not revised the laws and regulations to apply to the majority of the population; such laws and regulations are now mainly applicable only to civil servants. Moreover, the formulation of program, incentive or indirect inducements to encourage family planning practice cannot be fully undertaken since a lot of careful consideration has to be given to their repercussions as well as to their benefits.

1.4 Education administrators and technical personnel involved in population education have different interpretations of the concept of population education which are very crucial for implementation purposes. At the same time inadequate support has been given to promote population education programme of the private sector. There is also no central coordinating agency between the government and the private sectors. In addition, the monitoring of the work of health officers at the regional and zonal-levels and volunteer groups on a continuous basis is also lacking.

1.5 The production and supply of audio-visual equipment to disseminate family planning information is still limited and is not applicable to the general population. There also continues to be a problem in the conduct of family planning campaign to the people residing in backward areas.

1.6 In the past, there have been no specially designated target groups and target areas in which emphasis could be given to accelerate development on a priority basis.

1.7 The lack of adequate funding, manpower, statistical data, research, and suitable evaluation procedures has made implementation of programmes less effective than desired. In addition, measures to ensure that programmes are being implemented to carry out policy guidelines or to support implementation programmes consistent with policy are still inadequate.

1.8 The administration and coordination of population activities are, at present, carried out in task oriented from under the direction of a committee. At the national level there is the National Family Planning Committee, Executive Committee on Population Education and Sub-Committee for Population Policy and Planning. Each of these committees and/or sub-committees has a different official status and further improvement is required to ensure more effective coordination among them.

2. Targets

The Fifth Plan calls for realizing the following targets in reducing the growth of population as follows:-

2.1 Reduction of the population growth rate. It is the goal of the Fifth Development Plan to reduce the population growth rate to approximately 1.5 per cent by the end of the Plan period (1986). At that time, it is estimated that the total population will increase to

approximately 52.1 million, with an estimated crude birth rate of about 22.9 and an estimated crude death rate of about 7.3 per thousand respectively. If implementation of programmes for reducing the growth rate is achieved it is estimated that the total annual population classified by age groups and sex during the Plan period will be, as follows:—

Table 2.1
Estimated Population, Birth Rate, Death Rate
and Population Growth Rate : 1981-1986

Year	Population (in thousands)			Birth Rate per thousand	Death Rate per thousand	Population Growth (%)
	Total	Male	Female			
1981	47,488	23,868	23,620	28.4	7.7	2.1
1982	48,490	24,374	24,116	27.5	7.6	2.0
1983	49,459	24,862	24,597	26.0	7.5	1.8
1984	50,396	25,334	25,062	24.8	7.4	1.7
1985	51,301	25,789	25,512	23.7	7.3	1.6
1986	52,094	26,187	25,907	22.9	7.3	1.5

Table 2.2
Total Population Classified by Age Groups, Sex
and Growth Rate during the Fifth Plan Period

(Unit: Thousand persons)

Age Groups	1981			1986			Growth Rate (%)
	Total	Male	Femal	Total	Male	Female	
Pre-school children (0-4)	6,412	3,274	3,138	6,054	3,093	2,961	-1.00
School age children (5-25)	23,298	11,844	11,454	24,991	12,714	12,277	1.40
Working age Persons (26-64)	16,276	8,080	8,196	19,267	9,589	9,678	3.20
Old age persons (65 +)	1,502	670	832	1,782	791	991	3.42
Total	47,488	23,868	23,620	52,094	26,187	25,907	1.85

Table 2.3
Proportion of Population Classified by Age Groups and Sex

Age Groups	1981			1986		
	Total	Male	Female	Total	Male	Female
Pre-school Children (0-4)	13.50	13.72	13.29	11.62	11.81	11.43
School Age Children (5-25)	49.06	49.62	48.49	47.97	48.55	47.39
Working age persons (26-64)	34.28	33.85	34.70	36.99	36.62	37.36
Old Age persons (65 +)	3.16	3.81	3.52	3.42	3.02	3.82
Total	100.00	100.00	100.00	100.00	100.00	100.00

Source : Working Group on the Population Projection, NESDB.

2.2 Targets of new acceptors of family planning service by method

To achieve the target reduction of the population growth rate to 1.5 per cent by 1986 requires the recruitment of approximately 4.6 million new acceptors over the Plan period and the retention of approximately 4.1 continuing acceptors at the end of 1986. Detail targets of acceptors by method during the Plan period is presented in the following Table.

Table 2.4
Annual Targets of New Acceptors by Method
During the Fifth Plan Period

(1982-1986)

Year	IUD	Pill	Sterilization	Injectable	All Methods
1982	52,800	472,600	176,800	93,300	795,500
1983	56,400	504,900	187,700	98,100	847,100
1984	61,900	553,400	204,600	106,200	926,100
1985	65,700	587,500	216,600	112,200	982,000
1986	69,800	624,600	229,600	118,500	1,042,500
Total	306,600	2,743,000	1,015,300	528,300	4,593,200

Table 2.5
Annual Targets of Active Users by Method During the Fifth Plan Period

(1982-1986)

Year	IUD	Pill	Sterilization	Injectable	All Methods
1982	338,900	1,839,800	1,096,600	179,800	3,455,100
1983	316,400	1,865,500	1,223,600	184,200	3,580,800
1984	298,600	1,873,300	1,358,100	186,600	3,716,600
1985	288,300	1,948,200	1,500,200	195,600	3,932,400
1986	287,200	2,022,600	1,647,800	203,800	4,161,400

Source : Family Health Division, Ministry of Public Health.

3. Policy Guidelines and Measures

3.1 Policy guidelines. The policy guidelines for population programme during the Fifth Plan period are identified below:

3.1.1 Reduction of the population growth rate. Coordination in family planning between the public and private sectors will be accelerated in order to reduce the growth rate of population to a level suitable to the pattern of population distribution and is compatible with local resources. Emphasis will be given to the extension of these services to remote areas in the South and the Northeast, particularly among low acceptor areas.

3.1.2 The support of other population activities. Intensified efforts will be given to the following activities:-

(1) To expand population education particularly relating to the increase and improvement in disseminating information on population activities in order to create a better knowledge and understanding among the people.

(2) To revise the laws and regulations which are in conflict with population activities.

(3) To develop social norms and provide appropriate incentive so that people with economic problems will have not more than two children.

3.2 Development measures

3.2.1 Family planning

(1) Extend both public and private sector family planning services throughout the country by increase the number of mobile units and promoting the use of permanent contraceptive methods, particularly for people living in remote and disadvantaged areas. Emphasis will be placed on providing family planning services to selected groups of people with high fertility rate such as those living in the Northeast, the four border provinces in the South, the Bangkok Metropolitan Area. Emphasis will also be placed on providing such services to refugees and hilltribes.

(2) Increase and improve the dissemination of information on family planning through the mass media and encourage each province to set up its own public information and dissemination programme using simple language suitable to local conditions.

(3) Produce and develop manpower through the provision of technical training for doctors, nurses, midwives, and assistant public health officers. Short-term training courses will also be arranged for community leaders, volunteers, and women and youth groups in basic family planning methods and on how to motivate or attract additional acceptors.

In order to increase all categories of personnel who are able to provide family planning services, nurses and auxiliary nurses who pass the training course on IUD insertions and who have been accepted by the family programme authorities will be authorized to use this method as if they are under the supervision of doctors. In addition there are also other groups of people such as teachers and volunteer officers who should be authorized by the Ministry of Public Health and the Medical Council to prescribe pills for the second time and after. However, thorough physical examination by auxiliary midwives or doctors should be strictly enforced before prescriptions are authorized for first time users.

3.2.2 Legal measures and incentives

(1) **Regulations and legal measures.** Consideration will be given to the following

(1.1) Issue ministerial regulations permitting trained and experienced government para-medical personnel to perform sterilization. The Medical Profession Act has already made room for the undertaking of such actions.

(1.2) Improve the regulations allowing civil servants and other employees to be released from work, without loss of leave in order to have sterilization operations. After the operation leave of absences should also be permitted.

(1.3) Revise article 305 of the Criminal Code to require less stringent conditions for obtaining legal abortions, i.e. to permit legal abortions to be obtained for unplanned pregnancies due to failure of contraception, because there is, as yet, no perfect contraception.

(2) **Tax measures.** Major tax measures to be implemented are as follows:—

(2.1) To exempt family planning devices from customs duties so that public and private organizations offering such services will be able to continue providing them.

(2.2) To develop incentive package to enable the private sector to set up factories for manufacturing family planning devices such as oral contraceptives and others, by requesting donor countries to permit the purchase of locally produced contraceptives as substitutes for those produced in donor countries.

(2.3) Reduce the tax rates of single persons in order to encourage them to delay marriage.

(2.4) Allowing employers or donors to deduct the following expenses on their income taxes:—

— Expenses on the provision of family planning services to employees as a part of health care services under the Labour Protection Law.

— Donations made to finance projects on the development of employee skills.

— Donations made to provide meals for school children.

(3) Incentives

(3.1) Induce people to use family planning services particularly for sterilization by making payments or awards to those who provide family planning services and to those motivate others to use family planning if a certain target is met. Provide free child delivery service for those who consent to undergo sterilization after delivery.

(3.2) Motivate people to have no more than two children by giving special benefits to small families, for example, by awarding scholarships to children of small families, providing housing welfare services and by offering government aid to certain groups of people or communities located in the rural areas e.g., agricultural credit, hiring of farm animals, animal husbandry services, etc.

3.2.3 Population education

(1) Promote the teaching of population education as an independent subject at all educational level or as part of the regular curricula to meet the needs of each age group.

(2) Create a better understanding of population education by organizing, at least annually a seminar programme for education administrators at the policy-making level. In addition, continuous training programmes will also be arranged for all levels and groups of government and private rural development workers, volunteers and school teachers.

(3) Encourage community workers and volunteers who have had training in the field to disseminate population education to community members in every village and "tambon".

(4) Disseminate population education by organizing radio and television programmes, exhibitions and distributing newsletter as well as encouraging both government and private agencies involved in the dissemination of information to incorporate population education in their programmes.

(5) Promote the development of an appropriate curriculum for population education by requesting regional education offices and non-formal education centres to produce books, journals and learning kits to be distributed to schools, libraries or local centres. At least 15,000 kits on population education will be distributed to village volunteers, community and private organization workers for use in training the general public.

(6) Support research studies and evaluation so that the findings can be applied to further the development of population education.

(7) Assign responsibility to the National Commission on Population Education for implementing programmes which accord with stipulated policies and plans. The Commission shall also serve as the centre for coordination, collection of data and for providing services and disseminate information on population education. Adequate funding and staffing must be provided to ensure the effective operations of the Commission.

3.2.4 Information, education and communication aspects of population activities

(1) Establish a Coordinating Committee for Information, Education and Communication for Population Activities to serve as the centre for coordinating the activi-

ties of both the government and private agencies, and also for monitoring and evaluating their performance in accordance with the established policies

(2) Encourage agencies responsible for formulating national population policy and planning to organize a national seminar for representatives of relevant government and private agencies, in order to outline a master plan for the implementation and coordination of projects which are concerned with information, education and communications.

(3) Provide additional financial resources to those agencies responsible for disseminating information and providing education on population activities in high fertility areas and to those areas with a low family planning acceptor rate.

(4) Request the Ministry of Public Health and relevant government agencies to allocate more resources to private associations involved in carrying out family planning activities so that they will have the opportunity to assist as much as possible in disseminating and providing, education and communication services on population activities.

(5) Encourage government and private agencies which have not yet undertaken action, to integrate the information, education and communication of population activities into their work programmes.

(6) Encourage relevant educational institutions to organize training programmes for their staff who are responsible for information, education and communication services applicable for population activities and to develop the curricula in this field so that it can be integrated into the regular course of study.

(7) Organize seminars for members of the mass media, public relations units of private business firms, government agencies and private organizations to explore means for promoting closer cooperation in the provision of information, education and communication services on population activities.

(8) Train leading figures in folk entertainment to integrate information, education and communication services on population activities into their programmes.

(9) Encourage educational institutions and relevant agencies to carry out studies and research in order to develop appropriate techniques for implementing information, education and communication services on population activities.

To summarize, activities in family planning will play a major role in successfully implementing the Fifth Plan. Related improvements such as those noted earlier, are necessary to foster and encourage a more effective master plan for curbing the growth of Thailand population. Annual operation plans for both government and private sectors defining domestic work programmes and areas of international cooperation, particularly among ASEAN countries will also be developed.

B. Development of the Quality of Population

1. Background and Problems

The past emphasis on economic and national development without due consideration to its overall social aspects has created substantial differences between the quality of people residing in remote areas with those living in urban areas in terms of intellectual background and physical well being. Effective economic social and security development requires qualified people at all levels of education as well as workers in both the public and private sectors

who are not only capable but in sound health. These problems have to be urgently rectified in order to improve the quality of the population. Moral development among the people also needs to be undertaken.

In order to further develop the quality of the population, the following problems have to be resolved:—

1.1 Differences in and the unequal development of intellectual capability and basic character and the inequitable distribution of government services have created disparities between the rural and urban areas due to limited of government financial resources. These problems include the following:—

(1) Public health services which have not yet reached the appropriate target groups, particularly with respect to nutrition, prevention of diseases, and the extension of knowledge on pre-natal care and physical and mental health.

(2) Compulsory education services is which have not yet been fully available to children living in rural areas. Hence, the stage of intellectual development of rural children is lagging behind that of urban children.

1.2 Occupational training activities for the population to accord with manpower requirements in various sectors have not yet been able to cope with the rapid change in economic conditions. This is due to the lack of quality in the provision of government education services and the lack of appropriate guidelines and measures for coordinating in school education and out-of-school education as well as the lack of effective coordination between policy and planning agencies and implementing agencies. Problems which have to be rectified during the Fifth Plan include the following:—

(1) Education of the majority of the labour force is still below the primary education level and with 71 per cent of the labour force comprised of low income people. Also, supply of middle and high level manpower does not correspond to demand in the labour market. These situations have given rise to problems of both unemployment and under-employment.

(2) Lack of quality among the majority of the labour force who do not have an adequate knowledge of their occupation, working conditions, management, marketing, cooperatives and lack of dedication to their professions.

(3) Lack of efficiency in the performance of government officers due to not only the weakness in manpower development by various educational institutions but also to the rigidity of the bureaucracy which is not suitable present social conditions.

(4) Lack of a serious output-oriented approach and the inefficient management of public enterprises has created problems on the part of many public enterprises in achieving their work targets.

(5) Lack of coordination between the public and private sectors has made it difficult for the Government to undertake a programme of manpower development planning which is consistent with the demand of the labour market. Moreover, the private sector faces problems in developing appropriate manpower for administration and management.

(6) Standards of the industrial labour force do not accord with market demand due to the rapid increase of new entrants into industries as the economic system becomes more developed and at the same time the facilities for vocational training to increase the workers' skills are not adequate. Thus accounting for low labour productivity in the industrial sector.

(7) The agricultural labour force faces an inadequate standard of living, and low productivity and income due to the uneven and unsteady nature of the provision of development services in education, occupational training as well as the lack of agricultural extension programme as an integral part of in-school and out-of-school education.

1.3 The continuing problems of neglecting to instil proper attitude and values among groups of the population so that their moral and ethical approaches will lead to a more peaceful and prosperous Thai society. Factors causing this problem include weakening of various social institutions i.e. the family, education services, religion, and the mass media etc.

2. Targets

2.1 Occupation preparation targets

(1) Emphasis will be placed on in-school and out-of-school children and youth in the 6-25 ages range. (See details in the Children and Youth Development Plan).

(2) Standardized craftsmen training courses will be provided for at least 15 occupational trades. Of these, training has already been provided to 10 occupational trades with five more course to be conducted during the Plan period.

(3) The supply of adequate manpower for the vocational and university levels will be undertaken in accordance with guidelines as set forth in the education Plan.

2.2 Targets of the development of occupation and planning for efficient utilization of manpower. Emphasis will be placed on training civil servants, and public enterprise employees, business manager, industrial workers, and farmers.

(1) Training courses will be provided for all newly recruited government officers and public enterprise employees. Training courses for government officers at all levels will also be arranged in order to increase the coverage by 30 per cent annually.

(2) Provide educational training-occupational general knowledge for improving the living standards of farmers, coverage will be extended by 10 per cent annually.

2.3 Moral development targets (See details in Cultural Development Plan). Emphasis will be diverted toward improving selected target groups – civil servants, public enterprise employees, family clusters, education administrators and teachers, religious leaders and mass media personnel as follows:—

(1) Promote and disseminate moral standards to cover all specified target groups during the Plan period.

(2) Increase the frequency of training programmes on morality and combine them with annual occupation training programmes.

3. Policy Guidelines and Measures

3.1 Policies. Policies on moral development and the development of population quality consist of the following:—

(1) Promote the physical and intellectual development of the population through the provision of adequate public health and education services to produce individuals with good health and to equip them with the knowledge and skills for employment, thereby enabling each individual to become a responsible member of society.

(2) Promote training programmes on occupations and on increasing workers' skills as well as improving the quality in the supply of manpower to meet the needs of the labour market.

(3) Encourage various government agencies and public enterprises, to formulate short and long-term plan for more efficient utilization of manpower.

(4) Promote cooperation between the government and private sectors on the planning for the solution of manpower production and on the development of manpower quality to meet the demands in the labour market. Both short and long-term manpower planning will also be undertaken along with the development of administrators and managers at all levels.

(5) Promote short-term vocational training courses for farmers to provide them with an adequate knowledge for increasing productivity and marketing, thus enabling them to enjoy a better standard of living.

(6) Accelerate moral development activities by mobilizing of manpower resources from all government agencies, the private sector and various social institutions. Social institutions will have to review their roles in order to exercise their duties properly.

3.2 Development measures. In order to realize the Plan's objectives and targets, policies and measures to be implemented are, as follows:—

3.2.1 Development of health services and promotion of basic intellectual capacity among the population. It will be necessary to improve and expand public health services to all target groups. These services include nutrition, supplementary food, knowledge on consumption, child care, immunization and mental health. To promote basic intellectual capacity, it will be necessary to improve in-school and expand out-of-school education services in order to equip each individual with the knowledge and skills necessary to find suitable employment and to become a responsible member of the society.

3.2.2 Preparation and development of occupation groups to meet manpower requirements will be achieved through implementation of the following activities:—

(1) Arranging in-school and out-of-school vocational education to meet the local conditions. Emphasis in rural areas will be given to the promotion of agricultural activities and the provision of training courses on cottage industries utilizing local raw materials.

(2) Assigning the Committee on Provincial Development Planning to set up the necessary machinery and measures for creating employment opportunities which are consistent with market demand and the Government's job creation programme. The Committee will be expected to coordinate its activities with those of the Sub-Committee on Coordinating Manpower Development Policies.

(3) Improving and formulating measures on planning the supply of manpower, job creation, occupation preparation and continuous monitoring. Emphasis will be given to improving in the supply of manpower at both vocational and university levels. This improvement must be related to similar improvements in management and organization.

(4) Provide systematic and continuous training programmes for civil servants to improve their skills, to create good work habits and to monitor performance. The Civil Service Commission will serve as assigned to be the central coordinating unit with respect to all such training.

(5) The Office of the Prime Minister will be assigned the responsibility for improving and revising existing laws, rules and regulations which are related to the public administration areas. These changes will provide the basis for improving management efficiency, and flexibility.

(6) Improve income and the welfare of civil servants and other government's employees in accordance with changing economic condition. The Civil Service Com-

mission will be requested to recommend those improvement measures necessary to meet changing economic conditions.

(7) The Ministry of Finance will arrange the necessary training programmes for members on board of directors of public enterprises to better equip them to exercise their appropriate responsibilities. All public enterprises will also be requested to formulate coordination plans within one year and arrange systems for monitoring and evaluation in order to improve the efficiency of their operations.

(8) Arrange technical seminars among educational agencies and institutions in both public and private sectors including private professional and business associations in order to train administrators and business managers on the proper methods for collecting and disseminating information on occupational development.

(9) Formulate measures to support occupational training in various trades in order to meet industrial manpower needs, control the expansion of vocational training in the least demanded trades; control or assist private vocational schools; control the quality of vocational training in various trades to accord with the market demand and provide training courses for apprentices in various trades.

(10) Various educational institutions and professional associations, under the coordination and supervision of the Department of Labour will be requested to arrange training courses on the development of human resources including instilling discipline and developing a sense of improved morals and responsibility among workers, children and youth.

(11) Improve and undertake joint planning activities among those agencies involved in the provision of short-term professional training courses for farmers. This training will concentrate on methods for increasing productivity and improving marketing technique and on the construction of basic infrastructure facilities at the village level e.g., roads and wells. The objective of this training is to improve the standard of living of those participating in the course.

3.2.3 Moral development Measures include the following:—

(1) Leaders of various target groups will be encouraged to emphasize good moral development in order to bring about changes and to achieve the targets set for their groups. These target groups will subsequently act as catalysts in transferring their knowledge to the general public.

(2) The Office of the Prime Minister will mobilize manpower resources from all government agencies, the private sector and particularly the mass media to undertake their responsibilities in moral development. Those providing training courses will also be requested to include course on moral development in their programs.

(3) Under the direction of the Office of the Prime Minister, selected social institutions particularly the family, will be encouraged to rectify their shortcomings as a matter of priority.

(4) Under the direction of the Ministry of Education, religious leaders will be encouraged to propagate detailed principles for moral development according to established targets and policies. All religious organizations and sects will also be encouraged to cooperate in the propagation of religious teachings for the general public.

(5) The Ministry of Education and the State University Bureau will be requested to develop methodologies of teaching on morality and ethics which are both interesting and convincing.

(6) Decentralization of power to local authorities and municipalities in order to promote the role of local communities at the grass root level in the solution of problems related to the improvement of moral development.

(7) Create the necessary conditions for improving the social environment which is conducive to moral development e.g., concentrate on those arts, the culture and social values which are consistent with good ethics.

C. Conservation and Rehabilitation of Environment

1. Background and Problems

The rapid growth of the population, the unorganized pattern of human settlements and the utilization of inappropriate technology techniques in production processes have contributed to environmental problems which have a negative impact on the well-being of the people. If allowed to continue, these problems will further increase the depletion of the country's natural resources and create a serious environmental imbalance. The major problems are described below.

1.1 Pollution

(1) Water pollution has been brought about by the lack of adequate waste water disposal systems to drain the waste water from densely populated areas, industrial factories and cultivated lands. At present the four major rivers i.e. the Chao Phya, Tha Cheen, Bang Prakong and Mae Klong which are main fresh water sources of the country face critical pollution problems because the dissolved oxygen content of fresh water is lower than 30 per cent. For the more critical areas of the country the dissolved oxygen content is measured at lower than 1 milligramme per litre.

(2) Air pollution is attributed primarily to the emission of toxic substances from motor vehicles and industrial factories in certain areas and at certain time periods. This problem is extremely critical in the Bangkok Metropolitan Area. A recent survey carried out along traffic routes in the major business areas showed the carbon monoxide averages of 30-40 milligrammes per cubic meter.

(3) The solid waste problem in various urban areas has resulted from inadequate collection services and the lack of appropriate technology in disposing of garbage. In Bangkok, only 60 per cent of the total estimated garbage is collected. Of this, only 60 per cent can be disposed of through composting methods. In other urban areas, about 94 per cent of all solid waste garbage collected is not disposed of properly. The lack of proper methods in respect to garbage collection and disposal creates a number of environmental problems, such as water and air pollution and serve as a source of disease and germs which are directly harmful to the public.

(4) Noise from motor vehicles, and industrial plants is another problem. The survey undertaken along major traffic routes in business areas reveals that the average noise level is more than 85 decibel.

(5) Careless and improper methods in the application of certain chemical substances in agriculture and industry is still another problem. The wide-spread of residual toxic chemicals in the environment constitute a serious hazard to life.

1.2 Population distribution and human settlement pattern

(1) The unbalanced distribution of population in both urban and rural areas when considered in relation to local resources has created many problems e.g., inter-regional income disparities imbalances in the population and insufficient natural resources.

(2) Overcrowding and congesting in Bangkok and other major cities due to rural-urban migration, an unorganized pattern of growth in the cities and the lack of proper city planning have created a number of problems, e.g., squatter areas have increased; traffic congestion has intensified; and pollution has worsened.

(3) The poor distribution of the population as evidenced by the lack of well-educated people in remote areas has impeded the country's development efforts.

1.3 The deterioration of natural resources and ecological disturbances. Problems in the deterioration of natural resources and ecological disturbances have resulted from the rapid rate of deforestation, inefficient land use, the unsuitable cropping patterns in relation to soil quality, and inappropriate mining technology. Moreover, physical development in terms of the construction of highways, ports, water resources, and mineral excavation has caused ecological disturbances. Given the fact that the ecology is delicately balanced, the destruction of one system adversely affects related systems.

2. Targets

2.1 Water pollution. Water pollution problems will be tackled in the following areas:—

(1) The Chao Phya River from the Muang District of Ayudhya province down to the area supply fresh water of the Metropolitan Waterworks Authority, and from the Muang district of Phatum Thani province down to the mouth of the Gulf area.

(2) The Tha Cheen River from the Pho Phya watergate down to the Gulf area.

(3) The Mae Klong River from Vajiralongkorn Dam down to the Gulf area.

(4) The lower part of the Bang Prakong River down to the Gulf area.

(5) The upper part of the Gulf of Thailand and in the Eastern Seaboard area.

2.2 Air pollution

Accelerate the establishment of an air quality monitoring system in the Bangkok metropolis and control the air quality in urban centres and industrial areas.

2.3 Garbage

Provide more efficient garbage collection and disposal systems in the Bangkok, Chiang Mai, Nakorn Rajsima, Khon Khaen, and Songkhla-Haad Yai.

2.4 Noise and vibration

Establish a system to monitor noise and vibration in the Bangkok metropolis and other congested urban centres.

2.5 Urban congestion

(1) Improve environmental conditions in the Bangkok Metropolitan Area by constructing an additional public park for each of the districts.

(2) Improve work on water drainage and flood control systems for Bangkok urban growth centres.

2.6 Natural resources deterioration and changes in ecological system

(1) Undertake measure to preserve existing forest areas and also undertake reafforestation in watershed areas covering 300,000 rai per year.

(2) Develop unused coastal land and improve and rehabilitate of saline and deteriorated soil in the Northeast, acid sulphate soil in the Central area, and saline soil in the coastal areas.

(3) Establish a system to control the utilization of ground water throughout the country, particularly in the Bangkok metropolitan area.

(4) Prevent and control on-shore and off-shore mining practices which are not in accordance with technical standards and are destructive to natural resources.

— Adopt a programme to conserve the ecological system and control the utilization of resources in Songkhla lake, the sea of Phuket Phang-nga and the Eastern Seaboard.

3. Policies and Measures

3.1 Policies. In order to achieve the targets for conservation and rehabilitation, the policies set forth in the Fifth Plan include the following:—

(1) Undertake public investments in the development of environment in order to solve environmental problems emphasizing the maximization of economic and social benefits.

(2) Support increased participation of the private sector in the development of the environment and promote the dissemination of knowledge and understanding among the public.

(3) Encourage various public and private agencies particularly public enterprises, to undertake measures to solve environmental problems. Emphasis will be placed on capital and resource saving approaches, the utilization of renewable wastes, and the creation of incentives for private sector to invest in activities necessary for the solution of environmental problems.

(4) Promote studies and research on environmental problems in order to collect basic information and create a better understanding of environmental and ecological systems and to develop appropriate technology for the solution and control of various environmental problems.

(5) Accelerate the development of various basic infrastructures which are considered crucial for effective environmental development.

(6) Plan and implement measures for the distribution of population and human settlement pattern which are consistent with national security, resource endowment and employment opportunities in both rural and urban areas. Promote and adopt measures to stimulate community settlements of those sizes proportional to investment requirements for economic and social infrastructural services.

(7) Control and prevent the encroachment into unsettled areas so as to conserve natural resources and to achieve a proper pattern for distributing the population.

(8) Establish a population distribution system and human settlement pattern in urban areas which are consistent with the ecological system in preventing and alleviating problems related on the deterioration of environmental conditions, for saving energy and to be in line with the principle of home rule.

(9) Promote the even distribution of educated and experienced persons throughout the country in order to create a proper pattern of population distribution and to support the nation's development efforts. Control the population growth rate in Bangkok to be consistent with the country's urbanization policy.

3.2 Development measures. To realize the policies and targets noted above, the following measures will be implemented:—

3.2.1 On the controls

- (1) Develop more effective systems for monitoring and controlling government and private sectors activities which are concerned with solving environmental problems.
- (2) Use town planning and fiscal-monetary measures to prevent the spread of urban area to near by agricultural land.
- (3) Designate areas where environmental quality will be controlled.

3.2.2 On administrative systems

- (1) The office of the National Environment Board will serve as a central coordinating body for administering all national environmental activities.
- (2) Operations of those involved in solving environmental problems will be improved.
- (3) Various government agencies concerned with preserving natural resources and Controlling pollution will be encouraged to set up environmental units.
- (4) Highly educated and well-trained civil servants will be deconcentrated to various communities throughout the country and will be provided with additional incentives for sodoings. An educational expansion programme beyond the secondary and non-formal education levels will be formulated to provide opportunities for local people.
- (5) Establishment of land, land development or land reform cooperatives in potential agricultural areas will be encouraged in order to promote the migration from backward areas or densely populated areas to more fertile areas.

3.2.3 Legal measures

- (1) Improve and revise existing laws and regulations so that they will not only cope with the present situation but will meet the future needs in the environmental areas. Consideration will not only be given to laws and regulations directly related to environmental problems such as environmental standards but also to those involving basic environmental matters such as land use, town planning, building permits, sanitation, traffic congestion and land holding, etc.
- (2) Enact the necessary law and write concomitant regulations to require participation of the private sector in preventing and solving environmental problems.
- (3) Enact the necessary law and issue related regulations to prevent settlement in those areas which should be conserved as national resources and for public use.

3.2.4 On research and studies

- (1) Curricular on environmental education will be developed for school children and students at various educational levels in accordance with the country's environment development policy.
- (2) Degrees will be introduced at the university level in order to meet the manpower needs in environmental and environmental management.
- (3) Environmental education will be provided to the general public.
- (4) Short-term training courses will be provided to increase the capabilities of environment development workers in both the public and private sectors.
- (5) Environmental impact studies will be required in appraising economic development projects of both public and private sectors in accordance with the announcement of the Ministry of Science and Technology on the designation of type and size of

public investment projects. Sufficient funding for environmental impact studies should be made available for all investment projects in the public sector.

(6) Undertake studies on the formulation of a master plan for the control and solution of environmental problems.

(7) A system of networking for the survey and control of environmental quality and resources will be developed. Appropriate technology such as satellite photography will be used for this purpose.

3.2.5 Investment and financing

(1) Various government agencies, particularly municipalities and industrial plants of public enterprises will be encouraged to provide necessary funding for solving environmental problems.

(2) The private sector will be encouraged to undertake reafforestation programmes for commercial purposes in order to conserve the quality of the soil.

(3) The private sector will be encouraged to participate in activities related to the solution and prevention of environmental problems through such measures as the granting of forest replanting concessions, garbage collection concessions, etc.

(4) Basic infrastructural services will be developed and industrial investments promoted in areas with a low population density.

(5) Fee for the collection and disposal of garbage will be adjusted to an appropriate rate. Machinery for the collection of fee for the utilization of public drainage system will also be set up in order to increase adequate fund for the municipalities to invest in activities related to environmental development within the community.

D. Promotion and Development of Culture

1. Background and Problems

Culture is the way of life within the society. For purposes of presentation, culture can be divided into materialistic culture and non-materialistic culture.

Materialistic culture reflects the physical products of work such as machinery, buildings, technology, tools, etc.

Non-materialistic culture is the development in the cultural process which affects human concepts, intellect, attitudes, moral standards, values traditions, etc., and are expressed in terms of output created and discovered by scientific and artistic knowledge according to the norms of each society.

Thailand has its own cultural and artistic identity inherited from ancient predecessors. Thai culture is reflected through old traditions, language, dress and works of art. With the present rapid economic growth and related social changes, traditional culture has undergone significant changes. However, such changes have not always been to the best interest of the country. Concerted efforts to develop a national culture has been made more difficult because many agencies are involved, each operating independently. Moreover, problems as related to mental culture have not received adequate attention. These include the deterioration of moral and ethical standards and changes in the social values and attitudes which are becoming more and more materialistic. Traditional Thai culture is now less prominent among the newer generation, having been replaced by a mix of western culture. Ancient archaeological sites are not only left to decay or wither away but also are being destroyed by the people. These are urgent problems which must be resolved.

A more detailed description of each of these main problems is presented below.

1.1 The problem of religion and moral standards. Buddhism is the principal religion in the country 95 per cent of the population are Buddhist. Other religions which are also practiced in Thailand include Islamism, Christianity, Hinduism, and Sikhism. Buddhism exerts the main of influence on the belief and ways of life of the Thai people. It can be assumed that changes in moral standards beliefs, values and behavioral habit are mostly contributed by Buddhists. Thus, to solve the problem, Buddhists constitute the main target group.

1.2 The problem of national arts and culture. Thailand's artistic and cultural identity, handed down from our ancestors over thousands of years, has deteriorated noticeably. The decadence of art and culture can be witnessed by the occurrences of certain behaviour and incidents such as the beheading of Buddha images, the destruction of archaeological sites, and the negligence to maintain and preserve ancient relics, historical monuments and works of art. This problem has been caused by increasing socio-economic pressures and the lack of appreciation of culture and works of art among the people.

1.3 The problems of custom, traditions, language, law enforcement and value. It can be said that traditional Thai cultural values are less prominent among educated people than before. With a lack of knowledge and an understanding of their own cultural heritage, they tend to be receptive to alien forms of art and culture.

1.4 The problem of the lack of a unified management system on national cultural activities. At present art and cultural affairs activities are assigned to various departments e.g., Department of Fine Arts, Department of Religious Affairs, and the National Identity Promotion Office. Each of these agencies operate independently.

2. Targets

The targets for promoting and developing the culture are as follow:—

2.1 Promotion of religion and moral development

(1) To encourage children and youth to become more involved in religious teaching as an integral part of their daily life.

(2) To promote temples to play a central role in the development of local culture. A local centre for cultural development will be established in each region for experimental purposes.

(3) To increase the number of Buddhists attending religious services and practicing Buddhist principles on auspicious days from the current average of nine per cent at present to 20 per cent during the Plan period. To achieve this target, coordination will be undertaken among religious institutions, family institutions, and public and private professional institutions, particularly the mass media.

2.2 Promotion of national art and culture among eight million of the urban population in order to intensify the love for Thai traditional art and culture.

2.3 Promotion of national customs, traditions and values among general public in order to let them understand proper Thai customs and traditions and to cultivate proper values in the society.

2.4 Promotion and development of Thai language. To promote a campaign to encourage compulsory education graduates to use the Thai language properly and correctly in terms of both speaking and writing, without destroying the identity of local dialects.

2.5 Establishment of unified system in the management of cultural affairs.

(1) Formulate a master plan for the development of national culture and prepare related operational plans for each implementing agency to assure that coordination is achieved.

(2) Set up a centre for cultural affairs or strengthen existing government organizations in the management of national cultural activities with close cooperation from the private sector.

3. Policies and Measures

3.1 Policy guidelines. The following policy guidelines are recommended for the promotion and improvement of cultural development:--

(1) Religious teaching will be urgently promoted to provide spiritual guidance to the people together with the development of moral and proper ethical standards and discipline.

(2) Teaching on Buddhism principles, values and practices will be provided to all levels of education. Children and other young people will also be encouraged to participate more in religious activities.

(3) Children and other young people and government employees will be encouraged to perform religious rites on weekly auspicious days of their religion.

(4) National art and culture will be promoted to create among the people a sense of creativeness and discipline, to cultivate the love for Thai cultural and artistic identity inherited from our ancestors and to popularize the manufacturing and utilization of folk-crafts.

(5) Cultural activities with respect to customs, royal tradition and the Thai language will be promoted.

(6) A cultural centre will be established or existing government agencies will be strengthened and equipped with adequate authority to coordinate their work on national culture.

In pursuing these policy guidelines, appropriate steps will be taken to involve the private sector.

3.2 Development measures. Adoption of the following measures are recommended if the problems noted earlier are to be resolved:--

3.2.1 Promotion of religions and moral development

(1) Buddhism will be promoted and strengthened through the restoration and maintenance of Buddhist temples as centres of spiritual peace and development. Cooperation will be undertaken among various private organizations, government agencies and local communities to develop temples as centres of local cultural activities. During the Fifth Plan period a cultural centre will be established in each region on an experimental basis. Further expansion will be made if the experiment yields satisfactory results.

(2) The management of Sangha (monk) community will be improved through the arrangements of seminars for abbots on the management of Sangha affairs, the dissemination of true teachings of Lord Buddha, as well as on the development of temples. Advisors will also be provided to senior abbots and training will be provided to monks on law, regulations and religious practices. The Sangha Community Act will also be revised to ensure more decentralization of power, leading to the more effective administration of Buddhist monks' communities. In addition, regulations on the management of ecclesiastical property

and the allocation of Buddhist monastery lands for commercial and housing purposes will also be formulated.

(3) The true teachings of the Lord Buddha will be disseminated to villages, tambons and districts by using Buddhist monks and missionaries with the cooperations of selected organizations, associations, foundations and Buddhist clubs of various universities. The mass media will be utilized to encourage the general public to take their children to attend and practice religious rites in the temples on auspicious religious days. Study on Buddhist principles will also be provided at all levels of education and private and government agencies will be encourage to better organise their religious activities on auspicious days of Buddhim.

(4) Support will also be provided to other religions which have also been firmly established in the country such as Islam, Chistianity, Phram, Hindu and Sikhism, particularly in the propagation of religious teachings. Relations among the serveral religions will be fostered in order to create a better understanding and unity among the people.

(5) Ecclesiastical education in various Sangha educational institutions will be improved.

(6) Various government agencies responsible for the promotion of religion will be encouraged to undertake studies and research and collect data and information on religious matters and on the moral standards of the people.

3.2.2 Promotion of national art and culture

(1) Public relations will be expanded through various mass media to adequately provide the public with essential knowledge and information on Thai art and culture in order that they may understand the importance of their heritage.

(2) Valuable cultural heritages such as archaeological sites, literature, drama, music, folk dance etc. Will be studied, researched, preserved and restored. The collection and registration of our national art and cultural heritage will be accelerated together with the revision of law on preventing the destruction of work of arts.

(3) Education in respect to national art and culture will be improved and expanded to the regional level. Those individerals involved in the non-formal education system will be provided with an opportunity to receive occupational training in the field. Support will also be given to other educational institutions so that they can provide more manpower in cultural affairs such as teachers in drama and music as well as artists.

(4) The production of local handicrafts will be promoted to create income for villagers and those for the purpose of developing art and culture at the local level.

(5) Agencies responsible for art and culture in both the public and private sectors will be encouraged to undertake the monitoring and evaluation of their work and to coordinate their activities in accordance with objectives and set targets. Existing laws will also be revised to allow more private sector participation in the conservation and development of national art and culture.

3.2.3 Promotion of Thai tradition

(1) An educational campaign will be undertaken through in-school and non-formal educational systems, local cultural centres, and the mass media, to disseminate the love for Thai culture and tradition and to instill desirable values for a better life such as being economical and developing a sound saving habit and being diligent. The necessary law and regulations on the prevention of the destruction of our national culture will also be put into effect.

(2) Public ceremonies, state ceremonies and royal ceremonies will be reinitiated, promoted and propagated. The public in general, particularly the mass media will be encouraged to participate in organizing activities to commemorate auspicious occasions and national festivals together with the government and private agencies.

(3) Cultural pollution attributed to the influence of foreign culture in the forms of movies, shows, advertisements, and publications will be ameliorated through stricter enforcement of existing law. Revision of laws will also be undertaken to allow the more effective prevention of the destruction of our national culture and tradition.

(4) Cultural exchanges will be promoted interregionally and internationally. Various government agencies will be encouraged to work jointly with the high level educational institutions in each region in organizing activities on cultural exchanges. In addition the Fine Arts Department and various educational institutions will also be encouraged to arranged mobile cultural performances to be shown domestically and internationally.

(5) Officials in both the public and private sectors will be encouraged and supported to undertake studies and research which will lead to identifying the desirable pattern of Thai culture.

3.2.4 Promotion and development of Thai language

(1) In order to familiarize the public with the correct use of the Thai language, technical seminars and radio and television programmes on the use of Thai language will be arranged together with essay contests and language exhibitions. With the cooperation between the government agencies and the private sector a 700th anniversary of the Thai letters will be commemorated in 1983.

(2) Local culture centres and high level educational institutions will be encouraged to undertake studies and research in order to develop and promote the preservation of local Thai dialects and the traditional Thai language.

(3) Research and studies will be undertaken on the Thai vocabulary in order to correct and improve Thai words which are derived from foreign languages. Public relations will then be undertaken to provide knowledge and create a better understanding among the public.

3.2.5 Creation of a unified administration of cultural affairs

(1) A master plan for the development of culture will be formulated along with an operational plan in order to direct cultural activities in the same direction.

(2) Work on cultural development will be given more emphasis by the Ministry of Education along with activities on educational development. The Cultural Activities Coordinating Committee of the Ministry of Education will be strengthened to work with various operating agencies in the formulation of an action plan in line with the master plan and to monitor and evaluate performance.

In order that the master plan on cultural development can be in consistent with the national education plan and national education development plan it is seemed necessary that the Office of the National Education Commission should also take part in the formulation of this master plan.

(3) Standards, criteria, and indicators will be set for cultural assessment and evaluation. Machinery for the collection and analysis of cultural data will be provided along with support given to the organization of a training programme for cultural planning officers.

CHAPTER 3

DECENTRALIZATION OF SOCIAL SERVICES

Despite the allocation of 60 per cent of the outlays for the development of social services during the Fourth Plan period, social services have not really reached the hands of the majority of the rural poor which constitute the main target group. The lack of essential social services has made it difficult to improve the living conditions of these people and there is a need for more effective allocation and utilization of resources. In order to achieve the Plan targets and policies on the decentralization of social services, the Fifth Plan approach will be shifted towards the provision of basic needs to enable the people to help themselves and to mobilize local and private sector cooperation in shouldering more of the social investment burden.

A. Educational Development

1. Background

During the past two decades, the Government mobilized and allocated substantial amounts of domestic and foreign resources for the development of education. Compared to other economic and social sectors, education received the highest priority in terms of investment allocation. The development expenditure for this sector during the Fourth Plan accounted for 37.8 per cent of the total compared with 32.82 per cent during the Third Plan. Despite the priority given in terms of development budget allocations, there are still many problems encountered in the development of education which require remedial actions during the Fifth Plan period. These problems are as follows:—

1.1 Problem on population structure and the management of education. The continuing implementation of the policy to reduce the population growth rate, undertaken since the beginning of the Third Plan, has brought about a decrease in the rate of population growth from the middle of the Fourth Plan period. It is expected that the impact of the declining population growth rate when expressed in percentage terms will be felt at the compulsory educational level (6 years old). Therefore during the Fifth Plan period it is estimated that the number of children at the compulsory stage will total to 1.36 in 1982, 1.35 in 1983, 1.35 in 1984, 1.34 in 1985, and 1.32 million persons in 1986. Despite the decrease in the number of children at the compulsory educational age level, higher educational levels are expected to increase. Thus, in total numbers of students there will not be an overall decline during the Plan period.

These circumstances clearly indicated that during the Fifth Plan period, investments will have to be increased in order to accommodate the increasing number of students in middle and high levels education namely secondary education, vocational education, higher education, and non-formal education. This trend is expected to continue throughout the next 10 years before experiencing a gradual decline.

1.2 Problem on education quality

Evaluation of educational development since the implementation of the First Plan reveals a very rapid expansion of education in terms of quantity. At present, there are

30,671 primary schools as compared with 25,237 schools by the end of the First Plan. Concurrently, more of the secondary schools have been decentralized from the provincial and large district levels to the Tambon level. At present, there are 2,268 lower secondary schools and 1,530 upper secondary schools. The development of vocational education and higher education during the Third and Fourth Plans has also contributed to the rapid increase and more decentralization of education institutions to various regions of the country.

On average, the teacher-student ratio is still considered to be lower than the standard required. Also the quality of teachers in general does not quite fit in with schools' needs and requirements. Despite substantial progress achieved in terms of quantity, many problems still prevail in the development of education quality. Stated briefly, these are as follows:—

(1) There are still differences in the quality and standard between schools in urban areas and those situated in rural areas. Primary schools in remote areas in particular are short of educational equipment, and are manned by teachers of low quality most of whom lack a proper understanding and readiness to grasp the concept of new curricula. Due to the lack of an efficient teacher distribution system, there are now approximately 8,000 primary schools which do not have teachers for all classrooms. All of these deficiencies have given rise to a high rate of repetition which presently accounts for the average of 15 per cent of all students. Most of these repeaters are children residing in rural areas.

(2) Work on technical promotion, particularly the provision of supervisory services at primary school level, is not well covered and is irregular.

(3) Owing to the lack of vocational teachers, materials and equipment, the enforcement of new curricula for secondary education, i.e., in allowing students to take up occupational training courses in accordance with local needs, has not been effectively implemented. Most secondary schools are now offering only course in which they are prepared, having neither a sufficient vocational teachers or adequate teaching materials and equipments.

(4) Most of the investment for the expansion of higher and vocational education during the Third and Fourth Plans were allocated for construction activities, thus concerned with improvements quantity rather than the advancement of educational quality.

1.3 Problem on unequal opportunities in education

Despite the allocation of a substantial amount of resources by the Government for educational development during the past 20 years, there are still problems with respect to the distribution of educational institutions. In addition, there are major differences in the quality of education offered by various education institutions. These problems are attributable to the following factors:—

(1) The widening socio-economic gap between the urban and rural areas has created less opportunities for rural children to seek an education beyond the compulsory level when compared with their urban counterparts.

(2) The distribution of educational institutions does not correspond with population requirement and local conditions. Investment decisions are mostly dictated by political pressure and administrative consideration, resulting in the concentration of education institutions in urban areas.

1.4 Problem of the inconsistency provision of education with demand in the labour market. The nature of investments undertaken at the university and vocational education levels for manpower purpose had emphasized an increase in terms of quantity to satisfy primarily the needs of the government sector rather than being directed towards self-employ-

ment or serving private establishments. The imbalance in the production of high level manpower with the demand in the labour market has created wider unemployment and underemployment in various fields, particularly law, humanities, social science, science, agriculture (except animal husbandry), and certain branches of engineering. High level manpower supply which has not yet met demand in the labour market includes doctors and medical personnel of all types, and manpower in those industries related to natural gas utilization.

1.5 Problem on resource allocation and education management

(1) There are 3 sources of finance for educational development namely the government budget, income of various education institutions and local grants, and foreign loans and grants. In the past, reporting on the financial investment in education has been limited to the national budget. Thus the total picture of sectoral investment has not been clearly reflected.

(2) Past investment from the national budget for educational development can be classified into three main categories: Salaries, land, and capital fund for the upgrading of educational quality which accounted for 53.8 per cent, 25.8 per cent and 20.4 per cent of the total respectively. In the future, if the same proportion of investment is maintained it will be more difficult to accelerate the improvement of educational quality.

(3) The Government has continued to shoulder the major burden of investment in all educational activities. Despite the existence of a clear cut policy to provide opportunities for the private sector and local authorities in sharing investment in certain types of education, measures and methods to support this policy are still lacking. Moreover, there are several conflicting government policies, to the improvement of educational quality, e.g., the freezing of tuition fees despite rising costs, the modification of education curricula with emphasis on vocational training which necessitates higher investment costs, and the provision of education in certain subject matters which can be more effectively arranged by the private sector in the government's educational institutions.

(4) There is a lack of a unified system in the management of education. The separation of administrative structure between lower than higher education level and higher education level has resulted in duplication of work and wasteful efforts in the management of vocational education and teacher training.

(5) Technical management at the central, regional and local levels has not been effectively undertaken, in terms of planning and the implementation of related activities.

2. Targets

In order to reduce education problems and improve the quality of human resources, the targets for development are as follows:—

2.1 On quantity. During the Fifth Plan period a target has been set to expand the enrollment for pre-school education to cover 35.4 per cent of children in the pre-school age-group. Primary education will be expanded to cover all student in the compulsory age group. The enrollment for lower secondary education, upper secondary education and higher education will be expanded to cover 48.3, 30.9 and 4.8 of the people in each age group respectively. In addition, non-formal educational services will also be provided to an average of 1.5 million persons annually. The targets are presented below.

Table 3.1
Targets on Production of Students and Graduates in
Each Type of Education

(Unit : Thousand persons)

Types	Number of Students		+Increase -Decrease	Proportion of total people in each age group by 1986 (%)	Average number of graduates per annum
	1982	1986			
Pre-school Education (4-5)	559	740	181	35.4	—
Primary Education (6-11)	7,633	6,497	-1,136	97.0	1,050
Lower Secondary Education (12-14)	1,203	1,774	571	48.3	431
Upper Secondary Education (15-17)	868	1,141	273	30.9	321
— Regular Stream	462	599	137	16.2	156
— Vocational Stream	372	470	98	12.8	137
— Others	34	49	15	1.3	19
Higher Education (18-23)	262	327	65	4.8	95
— Vocational	64	39	-25	1.2	30
— Teacher Training	51	48	-3	0.7	21
— Limited Enrollment University System	97	116	19	1.7	31
— Private Colleges	35	44	9	0.6	9
— Others	15	40	25	0.6	4
Open University System	893	1,274	381	—	39
Non-formal Education (Public and Private)	Providing services to the average of 1,500,000 persons annually				1,500

2.2 On quality

(1) Reduce the rate of repetition at the primary education level by two per cent annually.

(2) Improve, adjust and modify the contents and substance related to academic, professional and moral courses as embodied in the curricula of primary education, secondary education, vocational education, teacher training and nonformal education to ensure consistency and to produce graduates to meet socio-economic requirements of the country.

(3) Upgrade the standards of schools in remote areas.

(4) Provide the necessary educational equipment and materials and supplies to 25 per cent of the total primary school students who are poor and needy.

(5) Develop teachers, lecturers and education personnel on vocational teaching in proportion to the expansion of professional training at the higher education level. The proportion of lecturers having doctorate : master : bachelor degrees will be raised to 2.5:5:2.

2.3 On equal opportunities

(1) All six year-old children will be provided with an opportunity to be enrolled in primary schools. Primary schools will also be set up in all Tambons.

(2) Lower secondary schools will be decentralized to poor and remote areas of the country with the intent to establish one school per five large "Tambons". During the Fifth Plan period about 130 lower secondary schools will be set up throughout the country. Also if there are no further financial constraints during the Plan period, consideration will be given to the establishment of an additional 120 schools.

(3) Consideration will be given to the establishment at the regional level of four dramatic arts colleges, 15 multi-purpose polytechnical schools and one fishery college

(4) In order to ensure a more equal opportunity in education, the system and methods of entrance examinations at secondary, vocational and higher education levels will be improved.

2.4 On the sharing of education investment burdens

The targets set in terms of ratio of students in public and private educational institutions are as follows:—

	Public	Private
(1) Pre-school education	47.1	52.9
(2) Primary education	93.8	6.2
(3) Secondary education and equivalent	80.8	19.2
(4) Higher education (Excluding Open University System)	83.5	16.5
Average	87.9	12.1

3. Policies and Measures

3.1 Overall Policy

To ameliorate the problem noted earlier, the Fifth Plan has laid down the following strategies and policies for the development of education:—

(1) **Policy on quantity, improvement.** Formal and informal educations will be provided and promoted in line with the stage of economic and social development of the country. Special emphasis will be given to the expansion of primary education to cover all 6-year-old children. Lower secondary education will also be extended to cover large Tambons in remote areas. Non-formal education will also be extended to people living in backward areas covering 37 provinces in accordance with the Office of the Prime Minister's announcement.

(2) **Policy on quality improvement.** Primary and secondary schools in rural areas will be upgraded to enjoy similar quality standards with those located in urban areas. Emphasis will be placed on the development and implementation of system to monitor, evaluate and supervise educational activities in order to ensure that the teaching and learning process fits with local needs and is able to achieve the desirable goal of the curricula regarding to academic, moral, and professional matters. Training on academic and ethical principles will be provided for regular teachers. Textbooks, educational materials and equipments will also be produced and made available on a timely basis for all schools. The rate of repetition will also be reduced.

(3) **Policy on educational quality.** Academic and vocational education institutions will be decentralized to appropriate areas and population groups. Special efforts will be given to provide more educational opportunities for rural people and less privileged groups. Furthermore, the system of entrance examinations at various educational levels will be improved so that it will be consistent with the newly revised curricula.

(4) **Policy on the acceleration of manpower production in accordance with demand in the labour market.** Academic and professional training will be improved in all educational institutions, particularly for the use of innovative and new technology curricula in order to produce basic personnel and middle and high level manpower to meet the need of the labour market. To realize this, the Government will emphasize investments in the production of manpower in these fields which are not only costly but are in short supply. In addition, systematic coordination among the various agencies concerned will be organized to monitoring and evaluate the demand of the labour market.

(5) **Policy on the allocation and utilization of resources for educational development and management**

- Efforts will be made to maximize the utilization of limited public sector resources. Emphasis will be placed on the standardization of existing educational institutions in both urban and rural areas of the country.

- The total development outlays for the development of education for the Fifth Plan period is estimated at approximately 3.5 per cent of GDP.

- Tuition fees of government and private education institution at the secondary, vocational and university levels will be revised to a more appropriate level so that

these institutions can increase their revenues and thus allow the Government to reduce its share of financial support to them.

— Additional budget on education development will be allocated to improving quality standards. In order to serve this purpose, the proportion of the budget spent on personnel and construction activities will be decreased.

— The private sector will be encouraged to share the burden of investments at all levels of education with the exception of teacher training activities. On the part of the Government, efforts will be made to provide technical assistance to the private sector.

3.2 Policies on each type of education

3.2.1 Pre-primary education

(1) Local communities will be encouraged to participate with Government agencies in the provision of pre-school child care services in remote and slum areas. Classes for pre-school age children will be set up in all schools located in areas where local languages are used, i.e., Yawee, Khmer and those used by hilltribe people.

(2) The private sector will be promoted and encouraged to undertake investments in kindergarten schools. The government will limit its role only to research and demonstration activities.

(3) The quality of pre-school child care will be upgraded by the provision of activities to strengthen health, nutrition standards, aptitudes and ethical standards as to prepare children for entry into the primary education system.

3.2.2 Primary education

(1) Compulsory education will be extended to all Tambons in the academic year 1982. Further efforts will be exerted to standardizing education quality at the central and regional levels through administrative reform and development of teaching and learning media in various forms.

(2) The education supervising system will be improved to ensure wider coverage and continuity.

(3) Efforts will be accelerated to further install students, teachers and education administrators with proper attitudes, ethical values, knowledge and experience. Well qualified and experienced teachers will be seconded to remote areas. Adequate social services will be provided to them to meet their needs.

(4) The rate of class repetition will be reduced. A more equal opportunity in education will also be promoted through the extension of planning coverage in by promoting the coordination between planning and local development in order that limited resources can be used more effectively.

(5) Adequate learning and teaching audio and visual aids will be made available on a timely basis to serve the needs of both students and teachers.

3.2.3 Secondary education

(1) Resources will be allocated for the quality improvement of sub-standard schools. Those located in the same vicinity will be encouraged to assist each other and to utilize resources jointly. In setting up new schools, priority will be given to remote areas of the country.

(2) Improvements will be made to ensure efficient implementation of educational supervision and guidance along with the improvement of the entrance examination system to ensure more equality in educational opportunities.

(3) The management in all types of education will be integrated and to the extent possible; educational administration will be decentralized to provincial and school levels.

(4) Measures will be formulated to provide manpower, technical and budgetary support to private schools so that they will be better able to share responsibilities in secondary education more efficiently and comprehensively.

(5) Practical training on activities related to community development such as the development of technical skills and craftsmanship, the provision of basic knowledge on science and technology for daily living, occupation promotion, health, culture, sports, and the preservation of natural resources and environment will be integrated in the process of teaching and learning.

(6) Certain private educational institutions at the secondary level permitted to revise their tuition fees so that they can improve their educational quality. These revisions will assist in alleviating the governments financial burden.

3.2.4 Vocational education

(1) Coordination will be undertaken on planning, policy formulation, production, and the utilization of vocational manpower in accordance with the demand in the labour market. Vocational education undertaken by both Government and private sectors will be also coordinated.

(2) The curricula of vocational education and the professional teaching and learning system will be improved to make education self-contained; to promote morality in order to serve the needs of the society, and meet market demand.

(3) The number of vocational education teachers will be increased and will be coordinated between demand and need. Standardization of vocational education institutions will also be undertaken.

(4) Vocational educational and short-term vocational training will be further expanded to rural areas in correlation with local conditions and resources.

(5) Vocational education institutions will be encouraged to cooperate with various agencies such as the Labour Department, Ministry of Agriculture and Cooperatives and private establishments in the arrangement of training courses.

(6) The private sector will be encouraged to participate more in the management of vocational education at all levels.

3.2.5 Teacher training

(1) The training, production and utilization of teachers of each institution and at each level will be coordinated to ensure consistency with the newly improved educational curricular.

(2) The syllabi of teacher training courses will be improved to provide appropriate theory and practice so that graduates can be better equipped with teaching knowledge for pre-school, primary school, secondary, vocational, and non-formal education.

(3) Teacher training institutions will be encouraged to work together in producing and utilizing educational equipments and education personnel. Support will be

given to the provision of educational equipment to teacher training institutions. The provision of technical services to communities will also be promoted.

(4) Measures will be formulated on improving the recruitments of teachers and lecturers for teacher training institutions. Emphasis will be placed on selecting those individuals who exhibit their proper attitudes, have good morals and have strong dedication to the teaching profession.

(5) Teacher training institutions will be encouraged to undertake and promote research, particularly on assessing and evaluating the quality of graduates and the efficiency of teacher training activities.

3.2.6 Higher education

(1) The quality of higher education will be improved with emphasis on raising educational standards and the quality of teachers, encouraging the composition of Thai textbooks, providing modern education equipment promoting wider research, and improving the curricula.

(2) Measures will be devised to ensure a greater equality of opportunity in education together with an increase in the number of graduates in the fields in which there are shortages of manpower, particularly medical and public health personnel. The number of graduates in those fields in which a surplus prevails in the market will be curtailed.

(3) Technical services will be extended to the institutions of higher learning. These institutions will also be encouraged to undertake activities on developing and disseminating information on national art and the Thai cultural heritage.

(4) Private higher education institutions will be supported to expand their educational facilities in those areas where they can provide a high equality education. In order to ensure an adequate education opportunity ratios for graduates will be established among public higher education institutions, open universities and private higher education institutions. Methodology for producing such graduate will be clearly established.

3.2.7 Non-formal education

(1) Non-formal education will be accelerated both in terms of quality and quantity increase to enable the people to pursue their professional careers in accordance with the demand for manpower in national development. Improvement in the quality of education should further contribute to the ability to think, to act, to solve problems and undertake business independently.

(2) Local resources from both the public and private sectors will be mobilized for the provision of non-formal education to meet the social conditions and local circumstances. Limited resources will be allocated in such a way as to ensure their maximum use.

(3) Non-formal education will be organized and strengthened to further buttress basic knowledge already obtained in the formal educational system. Support will also be given to the provision of technical and recreational facilities in various forms.

(4) The role of the mass media in various will be expanded to broaden the knowledge for the population. Those government agencies involved in mass media activities will be encouraged to set standards, and organize and produce programmes on education.

3.3 Development measures

To achieve the above mentioned policies and targets in educational development, the following measures are to be implemented:—

3.3.1 Pre-primary education

(1) Existing policies on the expansion of kindergarten facilities located in primary schools will be reviewed in order to ensure that appropriate limits and principles are realized in concert with the need to encourage the private sector to invest in this area of education.

(2) Services for pre-school children will be provided, emphasizing improvements in nutrition and adequate.

3.3.2 Primary education

(1) Zoning, innovation and new technology will be adopted in extending primary education to remote areas.

(2) Education supervision will be expanded together undertaken on continuing basis also with the establishment of an evaluation system to check work performance.

(3) Projects for increasing the teaching abilities will be introduced selectively to those schools which do not have a complete complement of teachers. Urgent steps will be taken to transfer teachers from those schools with a surplus of teachers to those schools which do not have a sufficient number of teachers.

(4) The quality of teachers will be improved together with the improvement of education equipment which is to be distributed when needed.

(5) Training on ethics and moral education will be provided with emphasis on practical experiences.

(6) Classes in primary schools will be expanded to the secondary level, particularly in those school situated, in large Tambon and densely populated areas.

3.3.3 Secondary education

(1) The structure of administration will be modified to ensure more decentralization of power to the local level.

(2) Teachers in the academic stream will be increased together with th provision of training for regular teachers to broaden their knowledge and stimulate their interest in the teaching of new curricula. Science teachers will be strengthened with basic teaching ability, scientific skills, aptitudes, and a proper outlook.

(3) Arrangements will be made to ensure that study courses relating to occupations are correlated with local needs.

(4) Approximately 200 secondary schools which, at present, are relatively well equipped will be further developed to not only provide vocational courses according to the curricula of higher secondary education but to increase their capacities to provide assistance to neighbouring schools.

(5) The effective utilization of teachers will be reviewed, since the teacher-student ratio in this secondary education level is still low and most of the budget is allocated for salaries.

(6) Appropriate indicators will be developed for improving evaluation with emphasis to be placed on the assessment of quality of graduates and the comprehensiveness of the curricula.

(7) Training on ethic and moral education will be provided with emphasis on practical experiences.

(8) Consideration will be given to the validation of certificates issued to graduates using the new curricula of secondary level similar to those given to graduates from vocational education at the professional certificate level. The major occupation courses selected will also be specified on the certificates.

(9) The methods for promoting and identifying promotion of investment requirement between investment requirements from both the public and private sectors will be clearly specified with emphasis placed on those factors which will emphasize the support of the private sector in implementing the stated policies.

(10) Tuition fees in public and private schools will be adjusted to reflect the reality of the economic situation and in accordance with the quality standard of each school.

3.3.4 Vocational education

(1) The syllabi of vocational education will be modified to increase practical training to 80 per cent. The remaining 20 per cent will be devoted to academic and regular subjects. Educational equipments will also be standardized.

(2) The system to monitor the employment status of vocational graduates will be improved and regularly enforced. Collection of statistics on graduates and their employment status will be improved to ensure consistency within each agency.

(3) Efforts will be exerted to accelerate the adoption of legislation requiring the participation of public enterprises and private establishments in providing on-the-job training to students.

(4) Joint planning studies will be undertaken between the Ministry of Agriculture and Cooperatives and Ministry of Industry for producing middle level manpower necessary to meet demands of industrial and agricultural development in the growth centres, e.g. the Eastern Seaboard. For outside areas designated for development, emphasis will be given to quality improvement and the development of existing educational institutions in order to meet the demand of local labour market together with the expansion of short-term vocational training courses. Conversely, the investment by the government in producing manpower in commerce and home economics will be slowed down.

(5) The government's policy on the production of vocational manpower will be reviewed is harmonize the work of the various participating agencies thus, reducing duplication of efforts.

(6) The private sector will be encouraged to assume a greater share of the investment burden, particularly in commerce and home economics courses, since the Government as noted earlier intends to slow down its investment in these fields of study.

(7) Sufficient manpower will be produced to meet the needs of industry, technology and power. To accomplish this, short-term and long-term training courses, will be organized, facilities for education in new fields will be increased particularly in areas of merchant marine, natural gas development; and the production of skilled manpower will be increased in critical areas, e.g., carpenters, cement workers and electricians. Concurrently,

production of manpower in surplus areas will be slowed down, particularly in commerce and certain branches of industry. The production of agricultural personnel in animal husbandry and fishery will be increased to meet the needs for agricultural developments.

(8) Consideration will be given to adjusting tuition fees for both government and private schools to reflect the reality of the situation.

(9) Regular training will be provided to vocational teachers to keep them abreast of new technology.

(10) Standard criteria will be set for the development of all types of educational institutions and will be integrated with the master plan and development plan for educational institutions according to national policy.

(11) The regulations of other government agencies responsible for personnel management should be revised in order to fix the salary scales to favour those individuals with appropriate skills and experience rather than being based solely on qualifications. Job description should be written for each class of position.

3.3.5 Teacher training

(1) Production of teachers in general academic branches will be slowed down, and production of vocational teachers will be accelerated to meet the demand in primary and secondary schools under the new curricula.

(2) Training courses on education will be provided to regular teachers in order to upgrade their quality.

(3) The joint committee will be encouraged to accelerate the planning of the production of teachers both at the Ministry of Education and the Office of State Universities Bureau levels.

(4) The system for allocating and distributing teachers to remote areas will be improved.

(5) The under-utilization of classrooms and personnel of the teacher training colleges will be reviewed in order to divert these resources to other educational purposes, e.g., secondary education, vocational education, dramatic arts, and physical education.

3.3.6 University education

(1) In order to lessen the burden on the national budget, each institution of higher learning will be required to formulate budgeting and financing plans and to identify those projects which should be slowed down or abolished, particularly physical construction activities.

(2) Tuition fees in both public and private university education will be adjusted to rates which are appropriate for the investment in this level of education.

(3) Production of medical and public health personnel, as well as personnel in industry and technology will be accelerated to be consistent with the development of manpower for industry, technology, power and petrochemical. For engineering, architecture, transportation and communication, agriculture (with the exception of animal husbandry in which the production will increase), arithmetics, computer science and home economics, the existing level of supply will be maintained. Meanwhile, production of manpower in law, education, anthropology, social science and business administration will be slowed.

(4) The method of entrance examinations and the granting of scholarships will be revised in order to provide more opportunities for poor students in rural areas to be enrolled in local universities.

(5) Various institutions of higher learning will be encouraged to take a more active part in community development activities and non-formal education, particularly in rural areas. In addition, they will also be encouraged to participate in research and extension activities carried out by other government agencies.

(6) The role of the private sector will be promoted in the establishment and expansion of colleges in those fields which the private sector can do well. The government will not undertake investment to compete with the private sector in these particular fields. Instead the government will provide more technical support.

(7) A clear cut policy on the establishment of new universities will be formulated. The expansion of or setting up new colleges and universities in the Bangkok Metropolitan Area will be slowed down.

(8) The State Universities Bureau and various institutions of higher learning will be encouraged to conduct more policy research.

(9) The quality of education on science and technology will be raised by improved systematic planning, the development of university lecturers, and the improvement of curricula to keep pace with the advances in science and technology with emphasis on practical training. Closer relationships between universities and industries will be promoted so that an exchange of knowledge and expertise can be undertaken.

(10) Production of manpower in science and technology at higher than undergraduate level will be increased together with the upgrading in the quality of researchers and technicians in critically short areas such as the development of mineral resources and power. To facilitate this, a faculty of graduate studies will be established to take active part in solving problems in industrial development areas or if necessary more services from the Asian Institute of Technology will be acquired.

3.3.7 Out-of-school education

(1) A more concerted effort for formulating programmes and projects will be encouraged at both the central and local levels, particularly among agencies within the same Ministry.

(2) The administrative structure of both core agencies and supporting agencies, i.e., the central, local, regional and provincial levels, will be improved.

(3) The terms of reference of the national committee on non-formal education will be revised to ensure more effective coordination and evaluation of work implementation both within and outside the Ministry of Education.

(4) Development targets will be more clearly defined both in terms of quality and the type of services provided to communities taking into account the urgency of local requirements. To avoid duplication of target group identification, regular performance evaluations will have to be undertaken.

(5) In order to avoid duplication of efforts, in target group identification, the Changwat will be required to formulate programmes and projects to meet local needs and to coordinate with all operating agencies within the Changwat. Central government agencies will be responsible only for giving policy direction and conducting evaluations.

(6) Non-formal education will be further expanded with emphasis on the provision of occupational training in accordance with local conditions. Cooperation of local communities will be solicited, and government officials will assist with the demonstration, design and marketing.

(7) Industrial establishments will be encouraged to take part in upgrading the skills of workers. To this end, industries will be required to contribute a counterpart fund to the government for training purposes or industries up from certain size will be required to arrange training programmes for apprentices in factories.

(8) A system on developing standard for craftsmen and technicians will be implemented along with the strict enforcement of legal and quality requirements. In order to upgrade the standard quality of national craftsmen and technicians, the recommendation documents will be considered as equivalent to certificates or degrees.

3.3.8 Academic development

(1) Urgent consideration will be given to the improvement of the administrative structure and the academic standard at university and lower than university educational levels in line with the guidelines on curricula development. For lower than university education the following actions will be undertaken.

— The administrative structure and the execution of work of central and regional agencies and related government agencies, i.e., the Department of Educational Techniques, the Office of the National Primary Education Commission, Department of General Education, Vocational Education Department, Regional Education Office, Provincial Education Office and the Office of the Committee on Provincial Primary Education, will be improved in an integrated manner in order to achieve the goals of education development.

— The management of education will be improved to ensure a more effective distribution of educational services to the local level.

(2) Agencies responsible for curricula development will be required to specify in details each step for applying the curricula in terms of teacher preparation, teaching and learning process, and the preparedness of schools in order to achieve the goal of the stipulated curricula.

(3) The teaching and learning in each type of education will place more emphasis on morality, population education, science and technology, energy and the environment.

(4) Perspective planning (15-20 years) on lower than university education and university education will be developed to provide the framework for the production of manpower to meet the need of the labour market. The Plan will require coordination between the Office of National Education Commission and the implementing agencies (Ministry of Education, and Office of National Economic and Social Development Board). In addition, emphasis will also be given to the monitoring and evaluation of work with the cooperation from the Educational Techniques Department, Department of Labour, Regional Education Office, Provincial Education Office, Government commercial agencies and private industries. Education guidance will be improved to provide clearer direction to students in each type of education on both academic and vocational curricula. Emphasis will be given to the providing of clearer guidance with regard to the plan of study and the labour market demand and the investment in education in order to create an understanding and confidence among students in the completion of their studies and their ability to enter the labour market.

(5) Close cooperation among the Office of the National Education Commission, Ministry of Education and the State Universities Bureau will be encouraged so that the necessary preparation steps on the admission of students in each type of education can be rationalized in accordance with the education guidance system.

B. Development of Public Health

1. Background

The analysis of public health indicators has shown that the overall death rate in Thailand has continually declined. In 1977, the death rates stood at only 5.4/1000 population as compared with as high as 10.1/1000 population in 1967. During the past decade, male life expectancy has also increased from 55.2 years to 57.6 years or an increase of 2.4 years. Female life expectancy has also increased by two years from 61.8 years to 63.8 years. Although these indices demonstrate improvement in the general health status of the population, the analysis of morbidity rates reveals that the majority of the Thai people, particularly those in rural areas, are still infected with a high rate of preventable common diseases such as gastro intestinal diseases and diarrhea. The morbidity rates of these diseases were as high as 379.7 per 100,000 persons, 506.7 per 100,000 persons and 596.2 per 100,000 persons in 1978, 1979 and 1980 respectively.

The rapid rise in morbidity rates has been attributed mainly to the deterioration of environmental conditions, poor sanitation, the lack of public knowledge on the prevention of disease, and the shortage of public health services in rural areas.

During the past two decades of public health development, despite the success on the eradication of certain communicable diseases such as plague, small pox, cholera, and the reduction in infant morbidity and mortality rates, there are still many other public health problems which have to be rectified during the Fifth Plan period. These problems can be summarized as follows:—

1.1 Problems of high incidence of preventable illness. At present apart from high morbidity rates of gastro intestinal disease and diarrhea as mentioned above, the malaria morbidity rate during the three years period had also been as high as 147 per 100,000 persons, 157 per 100,000 persons and 164 per 100,000 persons in 1977, 1978 and 1979 respectively. Illnesses and deaths from accidents, poisoning and violence has also increased annually. In addition there are still diseases transmitted by poor family health practices, such as those diseases among infants which can be prevented by immunization, maternal and child diseases, malnutrition, oral and dental diseases, psychosomatic diseases, and drug addictions.

1.2 Shortage of medical services in rural areas. There are considerable differences between services provided by the Government to residents of the Bangkok Metropolitan area and to those living in other areas of the country. This can be shown by the number of hospitals and hospital beds. The city of Bangkok with the population of only 10 per cent of the country has 38 public hospitals and 10,137 hospital beds while the other 71 provinces have the total of 144 public hospitals and approximately 31,813 hospital beds. In the Bangkok Metropolitan Area there are 33 private hospitals with more than 25 beds as compared with 40 hospitals in the other 71 provinces.

Medical services through the establishment of district hospitals, health and midwifery centres have not been well distributed. Presently, district hospitals are available for only 336 districts or 51 per cent of the total; health centres are available for 82 per cent of the total Tambons, and midwifery centres are available for only 4.5 per cent of the total villages.

Basic infrastructural services directly related to the improvement of environmental conditions such as sanitation facilities, water supply, disposal of solid waste, are also lacking in both the Bangkok Metropolitan Area and up country. In addition, the rapid expansion of economic activities which has encouraged the migration of rural people into the cities has brought about a situation in which a large number of people are crowded in slum areas, pollution problems have emerged and social tensions have increased. Owing to the lack of effective measures to deal with these problems in an efficient manner, these situations have brought about the deterioration of mental health, a rapid increase in drug addiction, and increases in cardiovascular diseases and diseases of the aged.

The lack of public health services generally and their inferior quality provided have resulted in an influx of patients to hospitals located in Bangkok. Available statistics show that rural dwellers account for approximately 40 per cent of the total patients receiving treatment in these hospitals. It is thus evident that the method of extending public health services must be revised to ensure a more effective distribution to people living in the rural areas of the country.

1.3 Problems of public health personnel distribution. The system of public health administration in the past was very much oriented towards the adoption of the top down approach in the solution of health problems. In this approach emphasis had been placed on the production of high level manpower (such as doctors) in which the capacity to supply was very limited and the production could not be increased to satisfy the demand of the rising growth rate of population. The training of high level technicians was geared towards employment in large hospitals utilizing complex medical equipment for the diagnosis of diseases. Hence, medical personnel prefer to be in large hospitals in Bangkok rather than working in the provinces. This system had been very much oriented towards the solution of problems for the minority while the majority of the population are still living in unhealthy environmental conditions, without adequate knowledge to protect themselves from preventable diseases. Records indicate that there is serious gap in the distribution of public health personnel between Bangkok Metropolitan Area and the rest of the country. In 1969 there were 5,800 physicians working in both the public and private sectors of which 3,500 or 60 per cent were located in Bangkok. The remaining 2,300 physicians, or 40 per cent were located in the provinces. The ratio of doctors to the number of population was 1:1,200 in the Bangkok Metropolitan Area as compared with 1:17,000 in the provinces. A similar pattern of distribution was also experienced in the case of nurses. In 1969 there were 15,200 nurses in both public and private sectors of which 8,033 persons or 53 per cent of the total were working in the Bangkok Metropolitan Area whereas the remaining 47 per cent were located in the provinces. The ratio of nurses to the number of population in Bangkok Metropolitan Area was 1:564 as compared with 1:5,500 or more in the provinces. The pattern of public health personnel production and distribution as elaborated above reflects very clearly that without remedial actions it would be difficult for the Government to achieve the objectives of providing adequate health services for all the people by the year 2000.

1.4 Problems of population growth and people's participation. The present rapid growth rate of population at 2.1 per cent per annum has brought about many other problems. The provision of public health services has not kept pace with rising demand. Moreover, the migration of people from rural areas into urban areas has also aggravated health problems and brought about shortages of basic health services.

Another problem is very much directly related to the people themselves. The majority of the population does not as yet have an adequate sense of responsibility in respect community health problems. There is still the need for collective efforts in the exchange of

community health knowledge and information and the organization of a body for the mutual solution of health problems. The lack of the people's participation has made it difficult for the government to achieve the objectives set for the public health sector.

1.5 Problems of policy formulation and management

There are still many public health policies which need to be reviewed, particularly those related to the solution of rural health problems, the training of public health personnel, the solution of personnel shortages problem and the increase of service efficiency. There is a need for a coordinating agency to collect and analyze data and information on public health problems in order to develop more effective health policies.

The crux of the problems with respect to health management is the fact that it is centered in Bangkok which creates inflexibility in the solution of public health problems at provincial and local administration levels.

2. Public Health Development Targets

The main public health improvement targets that have been set in the Fifth National Economic and Social Development Plan are as follows:—

2.1 The prevalence and mortality rates of preventable diseases will be reduced by the end of the Plan period, as follows:—

(1) To reduce diphtheria, whooping cough and tetanus morbidity and mortality rates by 60 per cent.

(2) To reduce polio and thyphoid morbidity and mortality rates by 50 per cent.

(3) To reduce diarrhea morbidity and mortality rates by 25 per cent.

(4) To reduce rabies morbidity and mortality rates by 25 per cent.

(5) To reduce morbidity and mortality rates of respiratory infection diseases by 25 per cent.

(6) To reduce malaria morbidity rate in the area under control covering 9 million population by 25 per cent and reduce mortality rate by 20 per cent on a nationwide basis.

2.2 Third degree protein-calorie malnutrition among children below five years of age will be totally eradicated and second degree protein-calorie malnutrition will be reduced by 50 per cent.

2.3 The rate of population growth will be reduced to 1.5 per cent by the end of 1986. Family planning services will be expanded to cover 4.5 million new acceptors and 4.1 million old acceptors by the end of the Plan period.

2.4 Immunization services will be provided to various target groups covering in particular children under one year of age as follows:—

(1) DPT (3 doses), increased from 49.2 per cent to 70 per cent.

(2) Polio (3 times), increased from 12.9 per cent to 70 per cent.

(3) BCG, increased from 67.7 per cent to 70 per cent.

(4) Tetanus (twice for pregnant women), increased from 25.2 per cent to 50 per cent.

2.5 The number of hospitals will be increased so that by the end of the Fifth Plan, there will be at least one hospital for each district of the country. In order to achieve this target during the Plan period, 252 community district hospitals will be constructed and 75 community district hospitals renovated.

2.6 The number of Tambon health centres will be increased so that by the end of the Plan, there is at least one health centre for each Tambon. In order to achieve this target 1,000 health centres will be constructed and 1,031 midwifery centres will be renovated.

2.7 Training of 24,000 health volunteers and 240,000 communicators at the community level will be completed in order to expand the service coverage to all villages by the end of the Plan period.

2.8 An adequate supply of public health personnel will be produced to meet the demands of the rural population. To this end 3,972 doctors, 19,450 nurse aids, 15,923 nurses, 3,950 midwives, 5,000 sanitarians will be increased together with other types of public health workers.

2.9 A central fund for village medicine operated by health volunteers will be set up in 10,000 villages.

2.10 The coverage of rural water supplies provision will be expanded from 64 per cent of the total rural population in 1981 to 95 per cent by the end of the Plan period. The targets for water supply expansion are as follows:—

- (1) Construction of 36,000 tube wells.
- (2) Construction of 3,800 village water supply systems.
- (3) Construction of 6,500 shallow wells.
- (4) Construction of 7,500 water supply systems for temple, musyids, schools and hospitals.
- (5) Provision of 2,200 concrete tanks and water containers of 400 gallons capacity each.
- (6) Provide 11,000 concrete tanks for rain water, in cooperation with the people.
- (7) Provision of 1,567,542 jars and family water filter equipments.

The Ministry of Public Health will be responsible for overall operation covering 2.5 million families with emphasis on health and quality standard of water.

2.11 Sanitation will be improved by the:

- (1) Construction of 1,700,000 sanitary latrines.
- (2) Construction of 25,000 economy latrines.
- (3) Installation of 25,000 sanitary tanks (biogas).

3. Policies and Measures

3.1 **Policy guidelines.** In order to solve problems on public health and improve the health status among the rural Thai population, the public health development policies during the Fifth Plan are, as follows:—

- (1) Work on primary health care services will be accelerated with the encouragement of public participation and the support given in terms of the allocation of budget and other resources to public health servicing units at the district, Tambon and village levels in an appropriate proportion for providing proper quality services to the rural population.

(2) The coverage of integrated public health services will be extended to urban and rural population with particular emphasis on the eradication of preventable diseases and improving nutrition, maternal and child care, family planning and dental health as well as solving and controlling environmental hazards.

(3) The improvement of public health servicing units at the district level and below will be accelerated to ensure more service coverage to the majority of the rural people. The expansion of large scale service units in urban areas will have to be limited.

(4) The public health administrative system in both urban and rural areas will be developed and improved with special emphasis on the strengthening of planning and policy formulation, decentralization of power to rural areas, the development of management information systems and improved coordination among various government agencies and the private sector.

(5) Special assistance will be provided to low income and old aged people in receiving medical services according to stipulated rules and regulations.

(6) Work on consumer protection, particularly in the areas of food, pharmaceutical products, and agricultural material and equipment, will be improved to ensure safety and fair treatment for all consumers.

(7) The production, procurement and distribution of drugs will be organized to meet the needs of the people. Unnecessary and wasteful use of drugs will be reduced through various methods e.g., the preparation and management of national drugs registration system and the promotion of research on an application of traditional medical and herbs which are safe and suitable.

(8) Rain water will be adequately provided to all rural families by 1986.

(9) Public relations activities on health education will be improved to disseminate more public health information which is useful for daily living of the people.

(10) Production of health personnel will be increased and their quality improved with particular emphasis on the solution of rural health problems.

(11) Research diverted toward promoting self-reliance and the development or support of rural health activities will be encouraged with particular emphasis on improving public health systems and applying appropriate technology to the provision of medical services and public health.

3.2 Development measures. Development of public health under the Fifth Plan will be based on the provision of primary health care which involves the development of a public health structure at various levels to ensure wider coverage of such services to the general public, households, and communities. This will be accomplished by the following measures:—

3.2.1 Develop the system of primary health care which involves the provision of integrated services allowing for the people's participation in planning, operating and monitoring of work and which is linked to the public health system undertaken by the Government. Under this system, local resources, e.g., health volunteers, communicators and community leaders will be mobilized for public health service activities. A system will also be set up to support the supervision of work and the provision of continuing education for volunteers in basic public health activities. In addition, support will also be given for the utilization of these volunteers in the implementation of projects which provide direct or indirect economic benefits to the local population e.g., the establishment of central

pharmaceutical fund for villages where there is potential for further development and expansion into other types of cooperative systems. This will require the people's participation and cooperation of other agencies concerned.

3.2.2 The implementation of primary health care consists of at least of eight major components. A changing strategy and approach for each component is required to assure that the substantial aspect can be realized within the primary health care structure.

3.2.3 The role of government agencies will be revised to support primary health care activities with particular emphasis on the district level and below. To this end an urgent effort will be exerted on providing of hospitals in all districts and health centres in all Tambons. These public health service units will also be allowed to major roles in the provision of services to the rural majority. The role of other government agencies at the provincial level or above will be reviewed so that they can provide support to the primary health care activities. In addition, support will also be given to the increase of treatment efficiency in the government service stations e.g., the development of a referral system; the transfer of patients to be rehabilitated outside the service stations under the care of relatives or volunteers under the primary health care structure; and standard controls on materials equipments and supplies, equipments, drugs, and pharmaceutical products; and the adoption of proper treatment techniques which are suitable with service stations and consistent with national economic conditions.

The eight policies and measures for the implementation of primary health care are as follows:—

(1) Health education

Efforts will be intensified to promote a better understanding among the people and households on local diseases; how to prevent and control such diseases; and the maintenance of basic health of each individual.

- Health volunteers will be utilized to disseminate knowledge on health education. Cooperation with other government agencies will also be undertaken on the provision of health education.

- The mass media will be utilized to arrange programmes which can directly influence public behaviour on health, e.g., the arrangement of radio programmes directed to the public or target groups e.g., health volunteers, mothers and children.

- A system will be devised for government officials to support volunteer work in terms of the provision of technical data, media and training.

(2) Nutrition

The following measures will be undertaken to reduce malnutrition problems among newly born infants and other children up to five years of age.

- Nutrition surveillance will be undertaken to identify people with deficient nutrients through the provision of nutrition education to primary health care volunteers and mothers.

- Support will be given to the production of food in villages to serve as a source of cheap and economical supplementary diet.

- Support will be given to bring about changes in the behaviour on the preparation of clean food for their own consumption.

- A free luncheon service will be provided to children for experimental purposes but it is not to be considered a direct measure for solving malnutrition problems.

(3) Immunization of communicable diseases

— Immunization services will be provided by means of vaccination with the necessary support given to the government officers by health volunteers in various forms.

— Systems for logistic support of vaccine distribution will be developed to ensure an adequate supply of quality vaccines to all villages.

(4) Treatment of common diseases at the local level

— Information on method for solving intestinal diseases particularly diarrhea, will be disseminated. A surveillance system on these diseases will also be organized through the utilization of volunteers under the primary health care structure.

— Drugs for these diseases will be produced and distributed on a nation-wide basis.

(5) Environmental sanitation and water supply

(5.1) The people will be encouraged to take part in the development of improved sanitation services. Training will be provided to villagers on simple technology and counselling services given on the use of applicable construction equipment.

(5.2) With respect to the provision of adequate water supply, the Ministry of Public Health will have to concentrate its effort on improving the quality of water for consumption purposes. Development measures include the following:—

— Villagers will be supported and encouraged to possess sufficient water tanks to hold the rain water for year round consumption.

— Advice on the construction of rain water containers will be given to the public by health volunteers and trained plumbers.

— The procurement of rain water containers will be based on the principle of self-help. For poor people, the government will provide financial support to defray equipment and material purchases while labour will be contributed by the people themselves.

— The private sector will be encouraged to participate in the campaign on the procurement of clean water for household consumption.

— Research will be promoted to identify simple, economical and effective prototype rain water containers.

(6) Supply of necessary drugs for village use

(6.1) A pharmaceutical fund operated by volunteers will provide services to all households in each village.

(6.2) The utilization of herbal medicine will be promoted for the treatment of simple diseases. To this end the following steps will be undertaken.

— Selection of herbs of good quality and which are not poisonous.

— Distribution of herbal seeds, procurement of herbs and production of herbal medicine.

— Promote knowledge on the application of herbal medicine via health volunteers.

(6.3) Production, procurement and distribution of drugs to the local level will be improved by the development of an agency responsible for the supply of pharmaceuticals and private sector participation in drug distribution will be encouraged.

(7) Family planning and maternal and child care

(7.1) Family planning

- Family planning activities will be expanded to cover more of the population through the employment of health volunteers.
- Permanent contraceptive methods such as sterilization will be expanded. For other provisional type contraceptive methods, measures will be taken to have applicants share the expenses involved.
- Social measures will be taken, e.g., the revision of the law so that abortion can be performed legally for reasons of health and social considerations as well as the enforcement of the Government incentive system related to allowances given to a certain number of children in education and the provision of various social services.
- Resources from other government agencies will be mobilized in support of family planning activities.

(7.2) Maternal and child care

- A surveillance system will be established to enable health volunteers to identify problem children and mothers.
- Nutrition education will be provided to mothers so that they can have proper health care.
- Control of communicable diseases among children will be expanded.
- The coverage of family planning will be expanded.
- Proper sanitary services will be provided together with the supply of clean water for mothers and children consumption.

(8) Control of local diseases

The prevention and control of diseases prevalent at the local level will be integrated as a part of the general public health services and primary health care. To this end, the following course of actions will be taken:—

- Training will be provided to public health officers so that they can understand their roles and be able to integrate their work on prevention and control of diseases with general public health services.
- Research on the form and method for the prevention and control of local diseases will be undertaken along with the development of appropriate technology.
- A management system will be established and public health officers will be encouraged to be better prepared to support primary health care service on the prevention and control of local diseases.

3.2.4 The necessary number of district hospital will be constructed so that by the end of the Plan period all districts will be covered. New health centres will also be constructed and the existing midwife centres renovated so that by the end of the Plan period there will be health centres in all Tambons. In undertaking these construction activities priority will be given to the poverty areas.

3.2.5 A coordination system will be provided at all management levels related to the improvement of development plan and policy by:—

(1) Undertaking surveys and studies on the processes and methods of planning and policy formulation.

(2) Decentralizing authority for planning/management and promotion of community participation through the development of the necessary organization and related machinery and the provision of training, programme budgeting will be initiated and improved technique in project management applied.

(3) Undertaking research on the provision of public health services and the application of improved techniques on planning methods and management. Recommendations will also be made on revising existing laws, rules and regulations. Improved policies, plans and management techniques will be implemented to effectively evaluate public health development projects.

3.2.6 Assistance in medical care will be provided to low income people living outside the Bangkok Metropolitan Area by:—

(1) Identifying of low income target groups.

(2) Issuing welfare cards to low income people and their families.

(3) Informing low income target groups on the procedures to be followed in obtaining free medical services.

3.2.7 To protect consumers, controls will be imposed on the quality, standards, business practices and advertisements for food products, drugs, cosmetics and toxic materials by:—

(1) Revising various laws for more effective control over the quality standard, business practice and advertisement as related to food products, drugs, cosmetic and toxic materials.

(2) Improving management methods, personnel development and coordination at various levels.

(3) Upgrading the standards on the production of foods, drugs, cosmetic and toxic materials in accordance with acceptable criteria.

(4) The strict inspection and surveillance of raw materials and products imported into Thailand.

(5) Collecting and disseminating information on food and drugs to the public.

3.2.8 Production of public health personnel will be expanded together with developing public health personnel at all levels. Appropriate technology suitable to economic and social conditions will be explored for the development of public health and medical services provided to rural population by:—

(1) Establishing either a central agency or a national public health development committee to coordinate planning, policy formulation and monitoring.

(2) Increasing the supply of medical and public health personnel at all levels to meet requirements. Improved work performance will be promoted through the provision of training for medical and public health personnel and the development of training curricula and teaching and learning processes in order to overcome national public health problems.

(3) Measures for the distribution of medical and public health personnel to the province will be taken. An example may be arrangement of employment contract in granting fellowships for students in those fields of study which are in shortage in the same manner as arranged for doctors.

C. Development of Food and Nutrition

1. Background

Malnutrition continues to be a serious problem affecting the lives and well-being of the population of Thailand, especially infants and pre-school children. Major malnutrition problems are protein-calorie malnutrition and anemia among pre-school children, school children, pregnant women and lactating mothers. There are also problems on vitamin A and other nutritional deficiencies which bring about bladder-stones, goitre and angular stomatitis.

During the Fourth Plan period, despite the implementation of many strategies embodied in the food and nutrition plan, certain strategies were not able to effectively solve malnutrition problems. Most of children admitted to child nutrition centres do not have malnutrition problems or are not from poor families. The provision of supplementary food has also been irregular and met only 30 per cent of the total requirements. Moreover, there is still duplication of work and waste of efforts due to the lack of a single agency responsible for overall coordination and monitoring. These factors have contributed to the continuing prevalence of serious malnutrition problems in the rural poverty areas and urban slums. A survey undertaken in 1980 indicated that 3.5 million of pre-school children of 53.0 per cent were suffering from protein-calorie malnutrition of varying degrees. The problem is very serious in the Northeast where malnutrition prevalent among pre-school children is estimated at 1.7 million persons or 59.5 per cent as compared with 53.6 per cent and 51.6 per cent for the North and the South respectively. The main concern which should be pointed out is that third degree protein-calorie malnutrition still exists among 150,000 pre-school children or 2.2 per cent of the total in Thailand. It has also been established that protein-calorie malnutrition among school aged children is as high as 40-50 per cent of all children in this age group.

Other malnutrition problems which are of secondary importance include anemia among pregnant women and lactating mothers in which the prevalence rate is as high as 30-50 per cent of the people in this group as well as pre-school and school aged children in which the prevalence rate is as high as 10-30 and 20 per cent of the total children in these aged groups, respectively.

A number of direct and indirect factors are responsible for the prevalence of malnutrition in Thailand. The direct factors include the consumption of inadequate food for physical requirements and/or the food is sufficiently consumed but the body has a low absorption for nutrients due to infections and parasitical diseases thus incapacitating the digestive system. The indirect factors include poverty, the lack of knowledge on nutrition, increases in the population, mass migrations into urban areas, low production of food in certain drought-stricken areas, the lack of political will to solve the problem and the lack of coordinated efforts in the implementation of nutritional services.

2. Targets

The following targets have been set for the implementation of food and nutrition policies during the Fifth Plan period:—

2.1 Target groups

2.1.1 Pregnant and lactating mothers

— The problems of protein-calories malnutrition and anemia will be completely eradicated.

2.1.2 Infants and pre-school children

(1) Third degree protein-calorie malnutrition will be eradicated.
 (2) Second degree protein-calorie malnutrition will be reduced by 50 per cent from 13.1 per cent at present.

(3) First degree protein-calorie malnutrition will be reduced by 25 per cent from 37.7 per cent at present.

2.1.3 School aged children

(1) Protein-calorie malnutrition will be reduced by 50 per cent from 40-50 per cent at present.

(2) Goitre in nine Northern provinces will be eradicated. To achieve this target, priority will be placed at the operational levels on the solution of problems among pregnant and lactating mothers and on infants and pre-school children, with emphasis on poor people.

2.2 Implementation targets

In order to attain the targets set on the reduction of malnutrition problems among the previously mentioned target groups, implementation targets for the next five years have been set as follows:—

2.2.1 Nutrition surveillance. The identification and treatment of under-nourished persons will be undertaken. During the first two years of the Plan period, nutrition surveillance activities will be undertaken in 246 districts locating in of poverty areas with coverage expanded on a nationwide basis during the remaining three years of the Plan. The implementation targets for the five year period is presented below:—

- (1) Measure the weight of pre-school children 7.6 million persons.
- (2) Measure the weight of school aged children 11.12 million persons.
- (3) Examination of 0.045 million school-aged children for goitre.
- (4) Examination among infants of pre-school aged, school-aged children, pregnant and lactating mothers for anemia 20.97 million persons.

2.2.2 Provision of nutrition education. Knowledge on nutrition will be provided to pregnant women and lactating mothers and to the general public through the following methods:—

- (1) Dissemination of information to 4.74 million persons through house-to-house visits and provision of counselling service at the office level.
- (2) Dissemination of information to 2.6 million people through demonstration methods.
- (3) Dissemination of information through various mass media.
- (4) Completing five campaigns on the promotion of breast-feeding.
- (5) Arrangement of five seminars for high level administrators.
- (6) Establishment of a centre on nutrition.

2.2.3 Provision of supplementary food. High protein food will be distributed to 0.23 million pre-school children with third degree protein-calorie malnutrition through child nutrition centres.

2.2.4 Promotion of high nutrition food production at local level. High nutrition food and protein supplementary food will be promoted through the dissemination of information and increased skills of the people on production with emphasis placed on those families whose members have malnutrition problems in 246 districts located in poverty areas. The targets are as follows:—

- (1) Promotion of supplementary food production in 25,000 villages.
- (2) Promotion of protein supplementary food production in 1,000 Tambons.
- (3) Promotion of agricultural raw materials supply for the production of supplementary foods in the target areas which include the followings:—
 - Paddy of 1,401.2 tons
 - Soy bean of 440.4 tons; and
 - Sesame of 160.1 tons
- (4) Provision of training on food technology at the village level to 25,000 member groups.

2.2.5 Promotion of school nutrition. Promotion of school nutrition will be undertaken through the following methods:—

- (1) Promotion of school sanitation in 4,000 schools.
- (2) Physical check-up of school children in 30,846 schools.
- (3) Provision of subsidies for school luncheons in 5,000 schools.

2.2.6 Addition of certain nutrition in food. The private sector will be encouraged to produce iodinated salt and ironated salt for distribution in areas where goitre and anemia diseases are prevalent. The production targets are:—

- (1) 40,000 tons of iodinated salt.
- (2) 5,000 tons of ironated salt.

2.2.7 Training and research. The following targets are set on the provision of training for personnel of those agencies involved in nutrition activities and for the support of applied research, as follows:—

- (1) Training of 480 technicians.
- (2) Training of 1,281 chief administrators at the provincial level and 3,030 chief administrators at the district level.
- (3) Training of 600 supervisors.
- (4) Training of 17,963 practitioners.
- (5) Conducting nine applied research studies.

3. Policies and measures

3.1 Policy guidelines

In order to solve malnutrition problems the Fifth Plan set forth the following policies:—

(1) Educate the target population group on the nutritional values of various foods and ensure their proper consumption.

(2) Promote the increase in the production of nutritious foods in adequate amounts and their proper consumption in sufficient amounts to meet minimum daily requirements of each person.

(3) Improve sanitation and environmental health and provide immunization for children in order to increase the effectiveness of nutrition programmes under the primary health care structure with special emphasis placed on those areas with serious malnutrition problem.

(4) Support local food production and distribution. At the central level, the private sector will be promoted to produce supplementary food to be distributed through the market system.

(5) Promote secondary occupations in order to increase family income.

(6) Provide protection for consumers with respect to the quality of food, advertisements, and pricing of necessary food items.

(7) Local agencies will be assigned the responsibility for formulating plans and coordinating local efforts for effective implementation, supported by other agencies concerned with both the public and private sectors.

(8) Support research and study on food and nutrition to be applied for solving existing problems.

(9) Emphasize the solution of malnutrition in those areas facing serious problems and located in poverty areas. Priority will be given to all target population groups including pre-school children, school-aged children, pregnant women and lactating mothers.

3.2 Development measures;

The following measures are devised for the solution of malnutrition problems:—

3.2.1 Nutrition surveillance. A nutrition surveillance system will be implemented to cover all provinces in order to identify and provide treatment for those persons suffering from malnutrition. During the first two years of the Plan, nutrition surveillance will be undertaken in high poverty areas covering 246 districts and the coverage will be expanded nationwide during the remaining three years through adoption of the following measures:—

(1) Under the supervision of public health volunteers, the weight of pre-school children will be measured and compared with the standard weight. For villages where public health volunteers are not available, the housewife group and community development workers will be required to undertake the measurement under the advice of public health officers. For school-aged children, teachers will be required to undertake the weight measurement as a part of activities relating to school health.

(2) The examination of school-aged children for goitre will be provided by mobile units of the Nutrition Division and Nutrition Centre Zone 5.

(3) The examination of pre-school children, school-aged children, pregnant women and lactating mothers for anemia will be undertaken by midwives.

3.2.2 Provision of education on nutrition. Nutrition education and information will be provided to pregnant women and lactating mothers through primary health care services by means of house-to-house visits, counselling service at the office, grouping of problem mothers, and by disseminating information through the mass media and mobile units.

3.2.3 Provision of supplementary food. Supplementary protein food will be distributed to infants and pre-school children with third degree protein-calorie malnutrition through child nutrition centres operated by the village public health volunteers and agricultural housewife groups. Midwives will be responsible for the distribution of supplementary protein food.

3.2.4 Promotion of nutrition food production at the local level. Production of nutrition food at the local level will be undertaken in schools where luncheons are provided and in nutrition centres of child development centres along with the advice given on proper feeding. Agricultural extension workers will also provide technical assistance to increase skills and knowledge on the production of nutrition food at the local level on a family-to-family basis, with particularly emphasis on low income families or those whose members have malnutrition problems. Extension services will also be provided to enable the community to producing supplementary food which is of nutritional value for children's consumption.

3.2.5 Provision of school lunches. The provision of school lunches will be promoted together with school nutrition education, school sanitation, and school farming for households. To this end the office of National Primary Education and the Department of Local Administration will be required to allocate funds to subsidize the lunch project, purchase school equipment on agricultural farming, provide a revolving capital funds, and arrange training for teaching staff and project officers.

3.2.6 Addition of nutrition in food. The private sector will be encouraged to produce iodinated salt and ironated salt for distribution in areas where goitre and anemia are prevalent. The government will shoulder the costs for iodine and iron.

3.2.7 Training of officers and promotion of nutrition research. To ensure the achievement of the national food and nutrition programmes embodied in the Fifth Plan, support will be given on the arrangement of training programmes for technicians, chiefs of administrative units, practitioners, and workers of related agencies in order to provide more knowledge and promote an improved understanding on the work in this field. Applied research will also be supported through the Sub-Committee on Research and Training under the National Food and Nutrition Committee with cooperation from various agencies under the Ministry of Public Health, Ministry of Agriculture, and Cooperatives Ministry of Interior and the State Universities Bureau and the Office of National Research Council.

3.2.8 Consumers' protection. Rules and regulations on consumer protection with respect to the quality standard of food will be revised with the cooperation among the government agencies involved and the private sector. Laws on the control of condensed milk and supplementary food for infants and children will be implemented.

E. Development of the Safety of Life and Property

In the past the government has placed particular emphasis in the social area on the provision of basic services i.e., education, public health, water supply, and housing. Safety to life and property was not emphasized. However, the experiences in various developing countries indicate clearly that without proper preventive measures, the problem of safety to life and property tends to increase with the rapid rise in overall economic development.

Hence, the need to accelerate the development and implementation of the necessary measures to protect life and property in realizing the overall strategy for social

development. In the formulation of development policies and measures, those major issues which directly affect the daily life of the majority of the people must be addressed, including among others the security of life and property.

1. Crime Prevention and Suppression

1.1 Background

Population growth and urbanization in various regions has increased the number of crimes. During the five years period 1973-1977, the average annual crime rate on the abuse of sex and the assault on life and liberty was as high as 74.36 cases per 100,000 population with the average annual crime rate on the assault of property as high as 122.95 cases per 100,000 population.

Statistics during the past 20 years indicate the seriousness in the area of crimes committed. Serious crimes increased from 20.5 cases per 100,000 population in 1959 to 25.9 cases per 100,000 population by the end of the First Plan in 1963, to 30.5 cases per 100,000 population by the end of the Second Plan in 1971; and to 39.8 cases per 100,000 population in 1976 the last year of the Third Plan.

During the Fourth Plan period, the serious crime rate had decreased to 34.02 cases per 100,000 population as a result of the Plan policies which emphasized the acceleration of economic recovery, the control of inflation and the improvement of income distribution.

Major crimes which are detrimental to national economic and social development efforts at present include (1) crimes on the assault of life, liberty and abuse of sex; (2) crimes on the assault of property; (3) drug abuse; (4) misbehaviour of children and youth; and (5) the exercise of personal influence.

Despite the increasing intensity to solve on crimes, the average clearance rate of serious crimes during 1973-1977 was only 30 percent of the total reported cases. This may be attributed to several factors: the low ratio of officers to the population, the lack of equipments and the efficiency of officers.

Criminal problems are attributed to many factors. Economic factors include droughts, floods, inflation, and rapid urbanization and mass migration which create urban congestion and slums. Social factors include the adoption of a western way of life, the emergence of unsavoury establishments, gambling and drug addiction, all of which induce children and youth to commit more crimes.

In addition there are also political and administrative factors which involve conflicts of interest, ideological and political differences among the people, and the lack of awareness on the part of the majority of the people on their duty to cooperate with the government. Moreover, during the past 20 years, the education system has not emphasized morality, virtue and ethics. The supply of manpower has not been undertaken to meet demand of the labour market, thus creating educated unemployment and increasing crime.

Major issues on crime can be summarized as follows:—

1.1.1 Basic problems

(1) At the national level, the creation of social value promoting co-operation with the judicial process among the general public is still lacking.

(2) Inadequate emphasis on crime problems has been given in the educational curricula and the subject on civics so that students can be aware of their duties on crime prevention and suppression.

(3) The Government has not paid sufficient attention to criminology, the research and collection of data and information for crime prevention and suppression.

(4) Broken homes, ignorance, lack of education, bad environment, prevalence of drugs and the adoption of foreign cultures are factors inducing children and youth to commit crimes.

(5) Crime prevention and suppression, correction are undertaken without academic background and unsystematically.

(6) There has been the lack of public relations at various levels.

(7) There has been no master plan and coordinated programmes and projects of various agencies to achieve the policies and objective on the development of the safety to life and property.

1.1.2 Administrative problem

(1) There are still a lot of legal loopholes in various laws and regulations which provide advantages to criminals and corrupt officers.

(2) Improper rules, regulations and working procedures create duplication of efforts, inefficiency and deterioration in the morale of officers.

(3) Certain rules and regulations inhibit the progress and security of officers involved in the criminal justice process.

(4) Political intervention and the intervention of certain government agencies with those on the work of agencies involved in criminal justice has resulted in inefficient management and the lack of direction.

(5) The delegation of power to too many superiors in key agencies involve in the judicial process has created confusion, duplication of work and inefficiency, particularly at the regional level.

(6) The rapid increase in the number of cases brought before the courts, of justice, the lack of coordination among various agencies concerned and unethical practices among certain lawyers have contributed to the delays in trials and conviction persons found guilty. This in turn, has given rise to the lack of confidence on the part of the people in the judicial process.

1.1.3 Operational problems

(1) Certain government officers are irresponsible, corrupt, and either commit crimes themselves or cooperate with criminals in matters of crime.

(2) Officers cannot exercise their duties efficiently due to various unhealthy influences.

(3) Crime prevention and suppression receives inadequate cooperation from the public.

(4) Cooperation and coordination among various government agencies needs improvement.

(5) There is no systematic training provided for improving the efficiency of personnel and there is a shortage of officers, equipment, materials and supplies and offices due to limited budget resources.

(6) Work on crime prevention and suppression, correction is undertaken without a proper techniques and system.

The study of general nature of crime committed also reveals that:—

— The crimes of murder, cattle robbery and sex abuse are mostly in the rural areas rather than in urban areas.

— Criminal cases related to drugs, thefts, car robberies, and abductions are mostly committed in urban areas than in rural areas.

— It is also found that teenagers commit more crimes.

1.2 Targets

1.2.1 Targets on crime prevention

(1) To limit criminal cases on the assault of life, freedom and sex abuse to not more than 75 cases per 100,000 population with more emphasis placed on reducing crimes on the assault of life.

(2) To limit criminal cases on the assault of property to not more than 100 cases per 100,000 population with more emphasis placed on reducing thefts, black-mails, extortion and cheating.

1.2.2 Targets on crime suppression

(1) To increase the number of campaigns for suppression of crimes on the assault of life, liberty and sex abuse by more than 30 per cent per annum, and increase the clearance rate by 3 per cent per annum during the Fifth Plan period.

(2) To increase the number of campaigns for the suppression of crime on the assault of property by more than 58 per cent per annum and increase the clearance rate by 2 per cent per annum during the Fifth Plan period.

1.2.3 Management targets

(1) Increase the ratio of officers in the main stream of operations and decrease the ratio of those in auxiliary and logistic work so that the ratio of 70 : 30 can be maintained.

(2) Increase the ratio of policemen to the population from approximately 1 : 865 at present to 1 : 700.

(3) Improve the ratio of correctional staff to the number prisoner from 1 : 12 at present to 1 : 10.

(4) Establish a committee to formulate policies and coordinate the judicial process.

1.2.4 Targets on service units

(1) Improve the services provided by all police station at the central level both in terms of personnel and equipment.

(2) In the provinces, 350 Tambon police stations will be set up and adequately supplied with arms, ammunition, communication equipment and vehicles.

(3) Expand the activities of the three juvenile courts and the observation and protection centres. Activities of juvenile training schools and probation for adult will be expanded to cover 36 provinces and three provincial courts will be established; five local courts in the Bangkok Metropolitan Area will be established; and one administrative court will be established.

(4) The private sector will be encouraged to take part in the prevention of crime. Local people will be supported to organize themselves into volunteer groups for crime prevention and suppression in all districts.

1.3 Policy guidelines and measures

1.3.1 Policy guidelines.

(1) Raise the standard of crime prevention and suppression and improve the management of justice to create a sense of responsibility and adherence to ethical principles in the exercise of duties.

(2) Provide justice and promote coordination among various agencies involved in the judicial process.

(3) Promote the role of the people and mass media in crime prevention and suppression.

(4) Eradicate all influences which inhibit the exercise of proper duties by responsible officers.

(5) Prevent and suppress crime until its negative impact on economic and social development is minimized.

(6) Provide for more rapid trials and the completion of cases brought before the courts.

(7) Promote the mental rehabilitation and behaviour of prisoners.

1.3.2 Development measures

(1) A steering committee will be set up to coordinate administrative activities within the criminal justice process.

(2) The performance of officers involved in the process of justice will be improved emphasizing efficiency and ethical conduct. Expansion of services will also be supported through the increase of manpower and improvement of office buildings.

(3) The public and mass media will be encouraged to: participate in crime prevention and suppression through the organization of volunteer groups at all levels of the community; the establishment of community relations programme to protect witnesses; and create a better understanding between the court and the public.

(4) Legal advice will be provided to defendants or accused persons who are indigent through private legal professional organizations. Legal services will also be provided to the general public through volunteers from institutions of higher learning. The law will also be revised to authorize courts of justice to appoint lawyers for indigent defendants in criminal cases and incentives will be improved for lawyers involved in such cases.

(5) Influential persons who support or commit crimes and jeopardize the economic and social well-being of the people will be suppressed through legislation, and information will be provided to the general public on these influential privileged persons. Government officers and public enterprise workers will be required to declare the value of their personal and real properties which holding office and after their retirement. Considera-

tion will also be given to the establishment of an administrative court in order to reduce social problems which arise from conflicts between the general public and government officials.

(6) Crime prevention will be emphasized through more strict control on the sources of crimes such as places of entertainment, massage parlors together with improving the patrol system.

(7) Children and youth will be trained through proper and correct methods.

(8) Laws and regulations will be revised to provide punishment in proportion to the degree of crime committed and will be strengthened to assure that repeaters of crimes are adequately punished.

(9) The mental rehabilitation and behavioural improvement of prisoners will be undertaken through the provision of vocational education, training on morality, and the improvement of the overall system which deals with convicts. Support will also be given to the forming of additional volunteer organizations to assist ex-prisoners.

(10) A computer system will be introduced to support court operations and developments in the academic field. Research and collection of data, and information on crime and convicts will be supported.

(11) Support will be given to the development of technical activities on gathering data on crimes and convicts, and research on the conducting of trials through the application of modern technology such as computers, tape recorders, and micro film.

2. Prevention of Road Accidents

2.1 Background

The rapid expansion of road transport in the Bangkok Metropolitan Area and in the provinces without an effective traffic control system has brought about a substantial increase in the number of road accidents. During 1971-1979 cases of accidents reported increased by the average of 20 per cent annually from 8,723 cases to 23,120 cases. It is estimated that the amount of direct damage increased from 11 million baht to 131 million baht. Moreover, the number of those who are injured and killed increased from approximately 9,700 persons to 30,000 persons during this period.

More road accidents take place in the urban areas than in the rural areas. However, road accidents in rural areas are more serious. In 1979 there were 12,045 cases of road accidents in urban areas in which 471 persons were killed, 5,032 persons injured and property damages totalled approximately 30 million baht. During the same period, there were 11,075 road accidents in the provinces in which 7,794 persons were killed, 16,607 persons were injured and property damages totalled approximately 101 million baht.

Road accidents have become a factor which causes the highest loss of life, even more than the mortality rate from any of serious diseases. Moreover, road accidents have also brought about a substantial loss of valuable human resource of the country. Research undertaken by the Rama Thipbodee Hospital indicates that about 65 per cent of those persons killed and injured from road accident are in the age group of 15-45 years.

The rapid rise in road accidents has been attributable to an unbalanced development in road transport and the lack of adequate investment in the development of public knowledge on road safety. It can be concluded that there are four factors accounting for road accidents. These factors include the followings:—

2.1.1 Road users. Road users which include drivers, pedestrians and passengers constitute about 90 per cent of all traffic accidents. This is mainly due to their lack of knowledge on laws and regulation and a general lack of responsibility and courtesy in the utilization of roads. Abnormal physical and mental conditions also contribute to accidents.

2.1.2 Vehicle problem. Vehicles are not in perfect conditions.

2.1.3 Traffic and route. Substandard roads and the installation of improper traffic signs are major factors causing serious road accidents.

2.1.4 Other problems. Other problems include those resulting from deficiencies in economic and social conditions, education, law, etc. On law in particular, there are many codes controlling road transportation which have given rise to duplication and conflicting regulations. There are also many agencies in charge of this matter each of which operates on its own with very limited capacity for enforcement. The major issue on this matter is the lack of an overall policy or master plan for the effective prevention of road accidents.

2.2 Targets

The targets on the prevention of road accidents have been set up as follows:—

- (1) To reduce the rate of accidents by three per cent annually.
- (2) To reduce the mortality rate by one per cent per annually.

2.3 Policies and measures

2.3.1 Policy guidelines

In order to solve the above mentioned problem the following policy guidelines have been set up:—

- (1) Strict enforcement of laws will be undertaken.
- (2) Research on traffic accidents will be promoted together with creating a sense of responsibility among government officials and road users.
- (3) Road accidents will be prevented through proper engineering design of roads.
- (4) Additional local courts will be set up in various districts of the Bangkok Metropolitan Area and laws will be revised to facilitate the prompt disposition of traffic violation cases.

2.3.2 Development measures. These consist of short and long-term measures as follows:—

(1) Short-term measures

(1.1) On education

- Training will be provided to traffic policemen and highway patrolmen.
- Information on traffic rules and regulations and methods for preventing accidents will be disseminated to the public through the mass media.
- Those agencies concerned with resolving traffic problems will be encouraged to conduct one campaign at least annually on the prevention of road accidents.

(1.2) On law enforcement

— Traffic policemen will be encouraged to undertake strict enforcement of existing traffic codes.

— The Traffic Police Division and the Highway Police Division will be requested to review various laws and regulations and make recommendations for their revision to assure compatibility.

— The Highway Department will be requested to undertake a standardization programme for crosswalks and engineering design.

— The City of Bangkok and the traffic Police Division will be required to undertake the construction of crosswalks in accordance with user requirements; the preparation of visible zebra lines; and the construction of standardized pavements along new roads and lanes.

(1.3) Medical

— Volunteer medical units will be requested to conduct a physical examination of those individual applying for driving licenses. Periodic physical examinations either on a three year or five year basis, will be required for those who already possess drivers' licenses.

— The faculties of medical science in various universities will be requested to include a training course for medical personnel on the proper treatment of road accidents victims.

(1.4) Research

A committee on the study and research of road accidents will be set up to formulate definitive policy guidelines to facilitate the effective implementation of adequate traffic laws and regulations.

(2) Long-term measures

(2.1) Education

— Traffic education and training will be provided at all levels of education.

— The Police Department and the Road Transportation Department will be required to establish standards for and assure the quality of all driving schools.

(2.2) Law enforcement

— The Police Department will be required to undertake the revision of existing laws to ensure speedy settlement in case of accidents.

— Driving license centres will be set up throughout the country to issue licenses.

(2.3) Traffic management

— The Police Department will be requested to undertake the reorganization of agencies involved with road accidents.

(2.4) Medical services

— The Ministry of Public Health will be requested to mobilize resources at both the central and provincial levels, for the setting up of ambulance centres.

(2.5) Engineering

— Standards will be developed for the construction and maintenance of roads, traffic signs, and traffic equipment.

(2.6) Research

— The State Universities Bureau and various research agencies will be encouraged to undertake studies and research on road accidents.

CHAPTER 4

SOCIAL WELFARE DEVELOPMENT

The provision of improved social welfare services must be provided to those groups of the population who are affected by the government's economic and social development. However, since the public sector has limited resources, there is a need to mobilize private organizations, charity organizations and the public in general in expanding social welfare services to people with problems and those less privileged. During the Fifth Plan period emphasis on social services will be placed on curbing drug addiction and improving public welfare services, labour welfare services and recreation. Plan strategies for each field are as follows:—

A. Prevention and Suppression of Narcotics

1. Background

Narcotics is one of the more serious economic and social problems. Apart from adversely affecting the health and well-being of addicts, the country also loses needed human and financial resources which are crucial factors in productivity. The availability and use of narcotics also increases crimes and destroys the good cultural practices, poses serious obstacles to national development, and endangers national security.

The wide-spread of drugs is a problem of long standing in Thailand. Historically, opium has been a popular narcotic and despite banning its use in 1968, the narcotic epidemic has continued. To the contrary, heroin which is much more harmful, has rapidly become a substitute for opium. Certain medicines and stimulants have also been used as narcotics which have been more strictly suppressed. These include the use sleeping pills, tranquilizers, and the inhaling of certain volatile substances.

Due to its geographical location, Thailand has become a major traffic route for narcotics to the world market. Despite serious suppression efforts, the drug problem has not been reduced; instead, the problem has increased steadily.

In order that the prevention and suppression of narcotics can be undertaken effectively, the following problem must be solved:

1.1 Epidemic problem

1.1.1 Number of addicts and quantity of narcotics. To date there has been no survey on the number of drug addicts. However, the study of the past trend reveals an increase of addicts namely:—

(1) During the five years period (1975-1979) addicts who received treatment and rehabilitation increased by an average of 42 per cent annually from 7,825 persons in 1975 to 31,483 in 1979.

(2) During the five years period (1975-1979) the arrests of on narcotic law violators increased by an average of 30 per cent annually from 9,799 persons in 1975 to 27,435 persons in 1979.

(3) The amount of narcotics particularly heroin, confiscated during the five years period (1975-1979) increased by an average of 10.6 per cent from annually 116 kilogrammes in 1975 to 642 kilogrammes in 1976 and 668 kilogrammes in 1979.

- During the 5 years period (1975-1979) the number of persons imprisoned for drug cases and under the care of the Correction Department increased by the average of 20 per cent annually from 6,600 persons in 1975 to 10,492 persons in 1979.

1.1.2 Type of addicts. Drugs are mostly used in slum areas of the cities and in the rural areas adjacent to cities. The majority of drug addicts are youth of working age. According to the survey on the nature of people receiving treatment and rehabilitation undertaken by the Office of the Narcotics Control Board, out of 31,827 addicts receiving treatment 66 per cent are people in the age group of 15-30 years old.

1.1.3 Type and the widespread of drugs. The survey undertaken among people receiving treatment and rehabilitation by the Office of Narcotics Control Board in 1979 revealed that heroin is most widespread in Bangkok and Southern provinces. Opium is widespread in the North, whereas marijuana is most prevalent widespread in the Northeast. The details are presented in Table 4.1.

Table 4.1
Drugs Epidemic Classified by Region

(Unit: Per cent)

Regions	Heroin	Opium	Marijuana	Morphine	Others
North	12	85	2	0.2	0.8
Northeast	15	60	9	6	10
Central (Except Bangkok Metropolis)	86	10	1	1	2
South	95	2	2.7	0.3	—
Bangkok Metropolis	97	0.3	0.6	1	1.1

1.2 Problem of drug trafficking

Thailand is used as a major route for drug trafficking for two reasons: 1) the Northern region of the country forms a part of the famous "Golden triangle" area which is one of the major cultivation centres of opium in the world and 2) the country has a good infrastructure of transport and communications which is utilized to transport narcotics from Burma and Laos.

Opium and opium products are mostly smuggled into the country from the Northern border with certain amount coming via the Northeastern border. Most chemical solutions used for heroin and morphine production are smuggled in through the Thai-Malaysian border and along the Southern coast and brought up to the production sites in the golden triangle area. Marijuana is grown almost everywhere particularly in the Northeast and the West of Central region. It is exported out of the country along the sea coast.

Suppression work on narcotics has been made very difficult since producers, pushers and buyers are willing to commit crimes. Drug trafficking is also undertaken in the

form of clandestine criminal organizations with complex coordination networks both within the country and externally, and backed up financially by influential people.

1.3 Problem of poppy cultivation by hilltribes.

Poppy has been cultivated for a long time by hilltribes for two main reasons, namely as a source of family income and for utilization as medicine. Hilltribes grow poppy by the shifting cultivation method which leads to the destruction of natural resources, particularly forest land and watershed areas.

A survey undertaken during 1980-1981 revealed that there were about 40,411 rai under poppy cultivation. Substantial amounts of land have also been prepared for poppy cultivation during 1981-1982. Production of poppy in the golden triangle area encompassing areas of Burma, Laos and Thailand is estimated at approximately 460 tons of which about 53 tons will be produced in Thailand.

2. Targets

2.1 To prevent drug abuse, priority will be given to educating 10,388,902 school children and out-of-school children, particularly those in the age group of 15-25 years, of which 1,317,743 persons are school children and 9,071,159 persons are out-of-school children. Education will also be provided to parents and community leaders throughout the country as secondary target population groups.

2.2 Training will be provided to responsible personnel on drug prevention and suppression at the Tambon level in various provinces throughout the country, thus enabling the programme to be carried out on a nationwide basis.

2.3 Drug traffickers in each region will be suppressed.

2.4 Treatment and rehabilitation will be provided to 306,860 patients under the volunteer system; 48,910 patients under the sentenced system; and 350 patients under the enforcement system.

2.5 The prevention and suppression of poppy cultivation practices in various areas of the country will be undertaken with particular emphasis placed on Mae Chaem River Basin, Nam Pai River Basin and Nan River Basin (Chiangmai, Chiangrai, Mae Hong Sorn and Nan).

3. Policies and Measures

3.1 Policy guidelines

In order to solve the problems just noted, policies on narcotics prevention and suppression are as follows:—

(1) Prevention of drug use will be accelerated along with the provision of treatment and rehabilitation for drug addicts.

(2) Efforts will be exerted to eradicate narcotic crops and the production of drugs and preventing drug trafficking through Thailand.

(3) Public and private agencies and international organizations will be encouraged to take part in drug prevention and suppression. Programmes on drug prevention and suppression will be included in the provincial plans.

(4) Agencies responsible for drug suppression will be encouraged and improved so that drug producers and pushers can be dealt with effectively.

(5) Economic crops will be promoted as a substitution for poppy growing in order to increase income and provide food for household consumption.

(6) Research and development of new technology will be promoted for more effective drug prevention and suppression.

3.2 Development measures

3.2.1 Prevention and dissemination of information

(1) The Ministry of Education will improve and expand education on the prevention of drug problems at all level of education.

(2) Information and knowledge on the prevention of drug problems will be extensively disseminated through cooperation among the Ministry of Public Health, Ministry of Interior, Department of Public Relations and private agencies.

(3) Alternative activities for children and youth such as sports and recreation will be promoted along with the improvement of environmental conditions which are conducive to drug epidemic by improving coordination among the Ministry of Education, the Ministry of Interior, the Sports Organization of Thailand, the National Housing Authority and private agencies.

3.2.2 Treatment and rehabilitation

(1) Treatment and rehabilitation services will be improved by the applying of new technology through improved cooperation of the Ministry of Public Health, City of Bangkok, State Universities Bureau, and private clinics.

(2) Promotion and support will be given to the provision of treatment and rehabilitation services both by traditional and conventional methods in government private hospitals in accordance with official regulations through improved cooperation among the Ministry of Public Health and the Office of the Narcotics Control Board.

(3) The Ministry of Interior, Ministry of Justice, Ministry of Public Health and the Office of Narcotics Control Board will improve, expand and initiate treatment and rehabilitation for those patients under the sentenced system and the enforcement system.

(4) Various agencies such as the Ministry of Public Health will accelerate work on the training of doctors, nurses, social welfare workers, and related personnel in the treatment and rehabilitation of drug addicts.

3.2.3 Drug prevention and suppression

(1) The Office of Narcotics Control Board will prepare curricula which are of mutual benefit to all operating agencies for the development of officers responsible for drug suppression. Each operating agency will also prepare curricula to suit their own needs.

(2) The exchange of intelligence information among the three agencies responsible for drug suppression namely, the Police Department, the Customs Department and the Office of Narcotics Control Board will be promoted. Each agency will be requested to set up a drug intelligence centre for the collection and exchange of data and information. The Office of Narcotics Control Board will be the central agency for the coordination of such activities both within the country and internationally. Operation plans will also be jointly developed.

(3) The Office of Narcotics Control Board will undertake the revision of laws to ensure the effective investigation and punishment of drug suspects.

(4) Sufficient fund of each responsible government agency will be allocated to the procurement of suppression equipment in order to increase the efficiency of officers. Foreign assistance will also be sought through the central agency such as the Office of Narcotics Control Board.

(5) All agencies responsible for drug suppression such as the Police Department, the Custom Department, and the Office of Narcotics Control Board will accelerate the suppression of large and small drug agents and drug users.

3.2.4 Prevention and control of drug crop cultivation

(1) Poppy cultivated area will be reduced by the promotion of substitute economic crops and handicraft among hilltribes through the cooperation of activities carried out by the Department of Public Welfare, Department of Forestry, Department of Agricultural Extension, Chiang Mai University, and etc.

(2) Promotion will be given to the marketing of products produced by hilltribes for distribution through cooperation between the Ministry of Commerce and various private agencies.

(3) Education will be upgraded with particular emphasis on non-formal education, compulsory education and the provision of primary health care services.

(4) A permanent settlement system for hilltribes will be arranged with proper registration under the supervision of the Department of Local Administration, National Security Command Headquarters, Internal Security Operation Command, and the Refugee Pacification Office (Baw Kaw 04).

B. Social Welfare

The development of social welfare during the Fifth Plan period consists of the provision of welfare assistance and labour welfare the contents of which are as follows:--

B.1 Welfare Assistance

1. Background

The rapid economic growth rate and concomitant social changes have brought about an increase in number of people who face problems and lack opportunities, e.g., low income people, the crippled, handicapped, old, deserted children and discharged prisoners. On equitable grounds alone, the government must shoulder the major burden in the provision of welfare services to these people so that they can eventually be able to help themselves. The nature and degree of the seriousness of the problems; their causes which have to take into consideration; and remedial actions necessary by the Government can be classified as follows:--

1.1 Deserted children.

Available statistics reveal that children and youth constitute about half of the total Thai population, or approximately 25 million persons. Children and youth who have social problems include deserted orphans, young addicts, and physically and mentally retarded children. These account for about 5 per cent of the total, or approximately 1.2 million. Presently, the government is able to provide welfare assistance to only 5.8 per cent of the total number of children who have social problems.

1.2 Women.

At present half of the female population or about 10.23 million persons are in the labour force. Most of these women are reguised to earn supplementary incomes to support their families. At the same time they also have to shoulder the main responsibility for taking care of their families. Statistics taken from a recent survey reveal that about 58.9 per cent of

the female target population groups who have economic and social problems have to take care of 1-4 dependants and about 64.4 per cent have less than 2,000 baht of income per annum. This female population target groups includes women of certain categories, e.g., widows, deprived women, and released convicts etc. In addition there is also a problem relating to prostitution which has been increasing together with increases in the number of houses of ill repute and massage parlours. For example, statistics from the Police Department show that in 1974 there were 20,073 such service establishments throughout the country with 426,908 women who provide professional services. The undertaking of improper professions among females may give rise to other problems such as drugs addiction, serious contagious diseases, extortion and the oppression of scrupulous persons. Hence, in order to assist these women the Government is required to provide the necessary welfare services.

1.3 Needy people who face problems.

The 1972-1976 economic and social survey undertaken by the National Statistical Office reveals that low income people with earnings of less than 2,400 baht per capita per annum account for 34 per cent of the total population. At present there has been no measures and legislation adopted to provide assistance to these needed persons. Despite the existence of a welfare assistance programme for low income family. The services provided are still considered to be very limited covering only 0.11 per cent of the needy population. There are about 765 private social welfare organizations which together can provide welfare assistance to only 3,000 persons annually.

1.4 Convicts and discharged prisoners.

With the annual increase in the number of convicts the prisons have become congested, creating problems relating to physical and mental well-being of prisoners. In 1979, at the central level there were 238,300 sick inmates and 9,840 inmates receiving treatment and rehabilitation for drug addiction. The survey undertaken in Bang Kwang penitentiary in 1981 shows that about 43 per cent of those imprisoned need family welfare assistance. In addition, there is also a need to provide welfare assistance to those children who have to live stay with prisoners in the penitentiaries. Moreover, prisoners who have been discharged or on parole will have problems in undertaking occupations due to the lack of investment capital for investment and employment opportunities as a result of prejudice against ex-convicts on the part of prospective employers.

1.5 Old, crippled and handicapped people

It is evident from an analysis of present social condition that relationships among members of the family have changed substantially. The emergence of a generation gap has left more and more older people on their own, particularly in low income families. It has been estimated that older people with low living standards account for four per cent of the total. It is estimated that the members of old people with increase steadily during the next decade, rising from 2.4 million persons in 1980 to 3.5 million persons by 1990. Yet, in 1980, the government could provide welfare assistance to only 0.13 per cent of the total old people with problems. Although, the precise data are not available, it is estimated that crippled and handicapped people account for about five per cent of the population. However, the government can provide welfare assistance to only 0.06 per cent of these.

1.6 People suffering from calamities.

There is a need for the Government to provide welfare assistance to people suffering from calamities such as fire and floods.

1.7 Causes of problems.

With limited funds, the provision of welfare assistance has not been adequate to meet the demands of the general public. The provision of welfare assistance has not been sufficient to create social equity and reduce inequalities in the society. Factors attributable to the lack of sufficient welfare services to the people are as follows:—

(1) Owing to the very nature of welfare service which is heavily stressed on the provision of free and hand out services rather than helping the recipients there is not only complacency among the general public about such services but there is evidence of a lack of cooperation on their part.

(2) There has been too much bureaucratic red tape in the administration of welfare assistance and the lack of cooperation and coordination between the public and private agencies at the local level which restricts the extension of service coverage. In addition the support from family institutions on welfare assistance is not sufficient.

(3) There has been no definite policy measures adopted to regulate and promote the role of the private sector in mobilizing resources to support welfare service activities.

2. Targets

Targets for the provision of welfare services during the Fifth Plan are as follows:—

- (1) Provision of welfare assistance to 500,000 children and youth
- (2) Provision of welfare assistance to 40,000 women
- (3) Provision of welfare assistance to 3.7 million needy people
- (4) Provision of welfare assistance to 1.94 million convicts and discharged prisoners
- (5) Provision of welfare assistance to 70,000 older persons, the handicapped and the crippled people
- (6) Provision of immediate welfare 7.5 million people suffering from calamities
- (7) Coordination of 3,500 social welfare organizations in both the public and private sectors.

3. Policy Guidelines and Measures

3.1 Policy guidelines

(1) Provide welfare assistance to people suffering from problems who cannot help themselves and need support for self-reliance.

(2) Provide welfare protection to individuals and groups of people who lack opportunities from sufferings.

(3) Develop, readjust and promote the occupations of people who have low standard of living.

(4) Improve and expand welfare assistance to meet the needs of the people by encouraging more private sector and general public participation in social welfare activities. In doing so effort will be made to maintain traditional Thai values emphasizing the utilization of resources and institutions.

(5) Mobilize resources of both private and public sectors for the provision of welfare assistance to needy people.

3.2 Development measures.

To attain the targets and policies on welfare assistance, adoption of the following measures are considered necessary:—

3.2.1 Children and youth. Detailed development strategies and measures are presented in the section on special target groups.

3.2.2 Women. Detailed development strategies and measures are also presented in the section on special target groups.

3.2.3 Needy people

(1) Welfare assistance will be provided to the needy and people who face problems by the:

- Provision of financial assistance.
- Provision of essential items for consumption.
- Provision of mobile family welfare assistance.
- Making visits and providing assistance to villagers who face special

problems.

- Provision of shelters for low income travellers.

— Provision of welfare assistance to and undertake control of people who violate the Beggar Control Act B.E. 2484. The four basic items will be provided along with occupational training.

(2) Vocational training will be provided to promote employment among the people.

(3) Efforts will be taken to upgrade the quality of government officials and volunteers involved in the provision of welfare assistance.

(4) To the extent possible welfare assistance will be provided to people in the provinces.

(5) The public and private sectors will be encouraged to provide welfare assistance to needy people.

(6) Counselling units will be set up to give advice on family problems.

3.2.4 Convicts and discharged prisoners

(1) Welfare services will be provided to detainees under parole by:—

- The provision of jobs and/or capital assistance for investment.
- The provision of treatment and rehabilitation for drug addicts.
- The provision of social welfare workers and volunteers to supervise

and provide assistance to parolees.

(2) Welfare service will be provided to convicts by:—

— Improving and expanding the Central Hospital of the Department of Correction to adequately accommodate sick convicts. Additionally, the welfare services provided to convicts will be increased to the level of standard set by the United Nations for this group of people.

— Establishing mobile medical units to provide physical, mental and dental treatment to convicts housed at both central and regional levels.

— A centre for psychiatric treatment will be established to provide services for psychiatric convicts throughout the country.^{1/}

(3) Welfare assistance will be provided to the needy families of convicts by the :—

— Provision of financial aid to support the consumption needs of needy families.

— Provision of capital and equipment for investment in occupations.

— Provision of financial aid for the repair of houses.

— Provision of Financial assistance for the education of children.

(4) Welfare assistance will be provided to discharged prisoners by:—

— Job placement and/or financial assistance on occupational training.

— Provision of capital for investment in occupation.

— Provision of financial assistance for the purchase of items of consumption.

(5) Welfare assistance will be provided to dependent children who are required to live with their parents in prisons by:—

— Provision of financial assistance for the purchase of items of consumption

— Provision of financial assistance to guardians.

— Provision of education.^{2/}

3.2.5 Old, handicapped, crippled people

(1) Family institutions will be encouraged to take more care of the old, handicapped and crippled people.

(2) Service centres for old people will be set up to provide welfare assistance on health care, physical therapy, recreation facilities, and financial aid.

(3) Welfare assistance will be provided to the old, handicapped and crippled people by their admittance into nursing homes, if necessary.

(4) Vocational training centres for handicapped and crippled people will be set up in various provinces and rural areas.

(5) Support will be given to the work of the Committee on the Handicapped Welfare and Rehabilitation.

(6) Welfare assistance will be provided for the rehabilitation of patients recovering from psychiatric illness as well as the provision of occupational training.

(7) Regulations which limit the right of handicapped people will be revised to provide access by them handicapped people to welfare services.

^{1/} Public Health Development plan should deal with this matter.

^{2/} Education development plan should deal with this matter.

B.2 Labour Welfare

"Labour welfare" activities included in this Plan document include the improvement of working conditions and the living standard of workers which are common responsibilities of the government, employers and workers themselves. The scope of work will also extend to labour protection, labour relations, wages and income, the worker compensation fund, Thai labourers in foreign countries, and other related matters.

1. Background

Since the inauguration of the First Plan, Thailand has experienced an impressive rate of economic growth. In particular industrial sector has grown rapidly with the emergence of large scale industries utilizing advanced technology. Nevertheless, the present small industrial establishments which employ less than 10 persons still account for 50 per cent of the total industrial establishments. The majority of small industries have neither sufficient financial resources nor operate by sound management practices.

A substantial transformation had also taken place in the agricultural sector. The introduction of modern techniques in cultivation such as the utilization of labour saving machines and equipment and the application of fertilizers and pesticides has brought about a changing employment relationship between owners and employees within agriculture, livestock, and fisheries. Statistics in 1980 show that there are about 830,000 employees in agriculture.

Workers and labourers play an important role in national economic and social development. It is thus essential that the government should pay attention to their welfare so that they can realize favourable working conditions and safety and security in their work which will help increase productivity and preserve human resources of the country.

Despite the provision legislation of the labour Protection Act which provide welfare assistance and protection to workers, in actual practices, many problems on labour welfare still exist. These problems can be stated briefly as follows:—

1.1 Problem on the provision of labour welfare according to the minimum standard set in the Labour Act.

Despite the provisions of the Labour Act requiring various establishments to meet minimum conditions for the workers' welfare, e.g., inspections of the Labour Department has revealed that about 6-8 per cent of the total establishments inspected have not yet met these requirements. The violation is particularly prevalent among small establishments and has been a major contributor to regular labour disputes.

1.2 Labour relations problem.

The problem of labour relations which used to be prevalent during the 1973-1974 period has, to date, been reduced due to the increased experiences of all parties in dealing with labour relations matters. Labour laws have been observed, minimum wages has been set, and strikes and work stoppages were banned from October 1976 to early 1981 due to unexpected economic pressures and the rising cost of living, it is possible that labour relations may once again, become a problem.

1.3 Wage and income problems.

Wage and income problems exist in both urban and rural areas of the country. In the rural areas the problems are greatly felt by rainfed farmers and smallholders whereas in urban areas the problems are greatly felt by unskilled workers in informal sector and also

in the modern industrial sector. Lower ranking government officials employees and public enterprise workers are also adversely affected since wages and salaries have not yet been adjusted to keep pace with the rise in the rate of inflation.

1.4 Problem of working conditions and security in non-agricultural establishments.

1.4.1 Occupational injuries and diseases in non-agricultural sector.

Rapid industrial growth and the increased introduction of modern technology in industries have been accompanied by an increased risk to workers, arising from adverse working conditions. In 1975 it was reported that 3,600 workers were injured on duty and the compensation fund paid 16.40 million baht to these workers. In 1979 the coverage of the Workers Compensation Fund services was extended to 22 provinces and it was reported that there were 24,416 injured workers with the pay out from the Fund totalling 75.2 million baht. About 86.6 per cent of workers injured because of adverse working conditions are disabled temporarily, about 10.5 per cent are disabled permanently and 2.6 are killed. Therefore, it is clear that Thailand is losing valuable skilled manpower working in the non-agricultural sector under the umbrella coverage of the Labour Act.

Major factors which are responsible for work-related injuries include dangerous working conditions, the lack of efficient production machinery and safety equipment, inadequate attention given by both the employers and employee to safety rules and regulations, and the shortage of safety inspectors.

Since its inception in 1974, the coverage of Workers' Compensation Fund has been expanded gradually. In 1979 the Fund coverage was extended to 22 provinces, including 6,101 member establishments and 659,041 workers. Contribution to the fund totalled 114.62 million baht. Despite the wider extension of the Fund's coverage it still has limited coverage extending only to companies with more than 20 employees each. In addition there are still certain establishment violating the Workers' Compensation Fund Act by under reporting the number of actual employees.

1.4.2 Injuries of workers in agricultural sector

With regard to the welfare of workers in the agricultural sector, the Labour Act extends coverage to those employees who work on farms and are involved in livestock raising and fisheries. The Labour Act, however, does not require other welfare services (such as the provision of drinking water, lavatory, toilet etc.) as is the case for non-agricultural workers. It should also be noted that most employees in agricultural sector are not informed of their rights as stipulated in the Labour Act. This is evident by the fact that there have been very few complaints made to the Labour Department on work related injuries.

1.5 Problem on the setting of labour standard.

In addition to the previously mentioned welfare services, the Government also provides the protection to prevent the excessive utilization of labour beyond an individual's capacity by the stipulating standards for the utilization of general labour in the Labour Act. Standards and criteria for the utilization of children and female labour are also specifically provided for in the Act. A 1978 labour survey conducted by the National Statistical Office shows that out of the total of 6.8 million female labourers, female employees accounts for 2.9 million persons of which 1.3 million persons, are employed by the private sector. In general, the nature of the utilization of female labourers is very much similar to that for male labourers. However their returns from work are different, particularly regarding wages. In most cases female workers receive lower wages than male workers for similar types of work

although the law states that there must not be preferential treatment given to male. Moreover, a 1977 survey on children and youth also revealed that children in the age group of 7-14 years who are working in industrial and agricultural sectors account of 38.3 per cent of school age children, representing 10.2 per cent of the total children in this age group. Most of these children are employed in small establishments which prefer to use child labour rather than adult labour due to lower wages and easier management. At present there are many establishments which violate the Labour Act on the utilization of child labour and the government has not yet been able to effectively control them.

1.6 Problem of the security of employees

There is still no social insurance system to provide security for workers in the case of sickness or death or retirement.

1.7 Problem of Thai labour in foreign countries.

At present, the number of Thai workers who migrate to find jobs in foreign countries particularly in the Middle East, is estimated at not less than 110,000 persons. Although the outflow of Thai labour can be considered as a major source of foreign exchange earnings, several problems have emerged. These problems which have to be urgently resolved include the exploitation of workers by job placement agencies or by foreign employees and the violation of laws, traditions and cultures of the host countries by the workers.

2. Targets

There are three levels of targets set for the provision of labour welfare, i.e. problem reduction targets, coverage targets and implementation targets. These are summarized below:-

2.1 Problem reduction targets

2.1.1 To reduce the number of persons receiving injuries from work by at least five per cent per annum.

2.1.2 To limit the number of small industrial and agricultural establishment which do not comply with the Labour Protection Act down to not more than 20 per cent per annum.

2.2 Coverage targets

(1) Inspect safety of working conditions in 3,500 industrial establishments which employ 50 workers or more. Approximately 700,000 employees would be covered. Conduct similar inspections for those agricultural establishments where insecticide has to be regularly used for farming. In estimated five million employees would be covered.

(2) Set up workers compensation fund in 3,500 establishments employing 10-19 workmen which are located in the Bangkok Metropolitan Area and nearby provinces to cover 50,000 employees. The Workers Compensation Fund will also extended to the 12,000 establishments employing 20 workers or more throughout the country covering 1.0 million employees.

(3) To set up a workmen's compensation fund for employees who either are injured or diseased for approximately 4,500 establishments each of which employs with 20 workers or more in the Bangkok Metropolitan Area and nearby provinces covering a total of 500,000 employees. A similar fund would be established, applicable to approximately 1,500 establishments, each of which employ 100 persons or more. In all an estimated 500,000 employees in such establishments throughout Thailand will be covered.

(4) Labour standard will be set for all businesses and industrial establishments to cover female labourers, risk industries, children less than 16 years of age and Thai labourers working in foreign countries.

(5) Social welfare services will be provided to workers in 1,500 industrial establishments with each of which employ 100 workers or more. An estimated 500,000 employees would receive such services. These social welfare services will include health care, child care centres, housing recreation facilities, schools, etc. Emphasis will be placed on the provision of these welfare services in industrial estate areas.

(6) Training will be provided to approximately 20,000 farmers and farm employees on how to protect from the dangers of insecticides. Handbooks will be distributed as an integral part of this training effort.

2.3 Implementation targets.

2.3.1 An occupational health and safety institute will be established to undertake research and develop stands for occupational safety. In addition 30 safety inspection centres will also be set up in the Bangkok Metropolitan Area and other provinces.

2.3.2 Work toward the provision of social insurance for workers will be initiated. The first priority will be addressed to the provision of health insurance for employees in the industrial sector.

2.3.3 Labour standard inspections will be undertaken in about 30,000 establishments annually.

2.3.4 Campaigns will be undertaken to create a better understanding among employers and owners of establishments on labour welfare and the benefits to be derived therefrom.

2.3.5 Efforts will be exerted to revise, modify and improve existing laws related to labour welfare matters. At least ten issues will be addressed annually.

3. Policies and Measures

3.1 Policy guidelines

(1) Promote and support the improvement in working conditions and general welfare of the workers.

(2) Promote the introduction of a bi-partite system in labour relations management and the establishment of labour unions and employer associations.

(3) Appropriate income policies and welfare system will be developed to enable low income farmers, wage earners in private enterprises with low incomes and low levels of welfare and low level government officers and public enterprises employees to cope with the rising cost of living, thus reducing their needs for future government assistance.

(4) Workers will be protected from occupational injuries and diseases. Efforts will be also exerted to ensure fair compensation to those who suffer from occupational injuries and diseases.

(5) In providing security for workers, consideration will be given to the introduction of a social insurance system or other system which is appropriate for Thailand's needs.

(6) Promote the export of Thai labour to foreign countries by establishing a more definitive role to be played by both public and private agencies. At the same time efforts will be made to solve problems which arise from the export of Thai labour to foreign

countries and to prevent the shortage of labour in certain skills which may affect domestic investment activities.

(7) Encourage both public and private agencies in the formulation of operational plans on labour welfare to provide more benefits to workers.

3.2 Development measures

3.2.1 On the provision of minimum welfare

(1) The three parties, i.e., the Government, the employers and the employees will work closely together in the revision of the Labour Act.

(2) The National Statistical Office, the Ministry of Agriculture and Cooperatives and the Labour Department will work closely together in promoting surveys and collection and validity of data on the agricultural labour force.

(3) Campaigns will be undertaken to create an understanding among employers in industrial activities on the importance of providing adequate labour welfare. Efforts will also be made to encourage various industrial and agricultural firms to provide labour welfare services to their employees.

3.2.2 Labour relations measures

(1) The management of labour relations will be promoted and strengthened. To this end, the Labour Department will be encouraged to speed up the settlement of labour disputes through initial consultations and negotiations between employers and employees under a bi-partite system. Should this negotiation fail to lead to an agreement, the labour court would step in to produce an ultimate judgement under a tri-partite system.

(2) Support will be given to the development of various institutions for the promotion of labour relations along with the provision of education and training facilities for workers and employers.

3.2.3 Income and wage measures

(1) Consideration will be given to the constant adjustment of minimum wage rates in accordance with changes in the consumer price index, taking into account the effect on overall investment, employment, terms of trade, and income of farmers. In addition, the price control on essential commodities will have to be also enforced.

(2) Consideration will be given to the adjustment of salaries and welfare services of government and public enterprise employees to an appropriate level taking into account the effect on the nation's financial position and in line with the overall wage structure of the government and public and private enterprises.

(3) The Department of Labour will be encouraged to undertake strict enforcement of minimum wages and other labour laws. Those who undertake serious violation of labour laws should be exposed to the public through the mass media. At the same time good employers should also be praised and publicized.

(4) The Revenue Code will be revised to increase the allowances for personal income tax in accordance with changing minimum wage rates.

(5) Improvements will be effected in the government's welfare management system to ensure speedy and timely provision of services to needy persons. To this end, the registration system of persons entitled to receive government assistance will be established along with a reduction of government's assistance given to those who can help themselves, particularly those in health and education.

(6) To ensure the minimum welfare of workers, support will be given to the gradual development of a social insurance system which will include the benefits to be provided, area coverage, type of business, and will take into account the administrative and financial capacity of the government.

(7) Consideration will be given to the formulation of a consistent income policies programme for various groups. A national committee on income, wages and pricing policies should be set up to coordinate the work in this area.

3.2.4 Work security measures

(1) Safety inspections, training and supervision will be extended throughout the country, both in the industrial and agricultural sectors. Work security centres or institutes will also be established.

(2) The Workmen Compensation Fund Office will be promoted to expand its scope of work on a nationwide basis.

(3) An agency responsible for providing welfare services to workers who receive injuries which are not work-related will be established.

(4) Consideration will be given to the establishment of an institute on work security and occupational health to provide training, disseminate information, and undertake research for the development measures to prevent occupational injuries.

(5) Research will be undertaken on industrial occupations and the working conditions which are dangerous. The results of this research will then be used as the basis for developing security standards for the prevention of occupational injuries and diseases.

(6) Cooperative efforts will be undertaken among the Labour Department, the Public Welfare Department and private agencies concerned to develop an occupational training project for workers who are disabled by occupational accidents in order to reduce the dependency burden.

3.2.5 Labour standard measure

Research will be undertaken on the industrial occupations and working conditions which are dangerous to workers. The results of this research will then be used as the basis for developing labour utilization standards.

3.2.6 Employment security

(1) Employers and employees of various industrial establishments will be encouraged to develop a better understanding of job security.

(2) Support will be given to industrial establishments in setting up child care centres either within the establishments or in industrial areas.

(3) Creation of security in employment will be promoted gradually. The initial effort will concentrate on providing health insurance.

(4) Support will be given to coordinate the efforts of government and private agencies in the provision of counselling services to workers and Thai labourers in foreign countries.

3.2.7 Measures for the the solution of problems related to Thai labour in foreign countries

(1) Support will be provided to the Department of Labour in the strengthening of its administrative capabilities with respect to the export of Thai labourers to foreign countries. Labour offices will also be set up in countries where a significant number

of Thai labourers are present. Necessary funding, staffing and equipment will be provide to implement this activity.

(2) Draft legislation of Employment and Labour Protection Act which has been approved by the cabinet and is now awaiting the scrutiny by the parliament will be finalized. Once this law is enforced the export of Thai labourers to foreign countries will be better regulated.

(3) The Department of Labour and other agencies e.g. the Department of Vocational Education, Ministry of Education will expand the training for skilled workers who are in highly demand in foreign market and undertake tests to determine and certify the level of skills to facilitate job placements in foreign countries.

(4) The Bank of Thailand will be encouraged to facilitate the transfer of foreign exchange earned by Thai workers in foreign countries, both in terms of opening more branches of commercial banks and undertaking public relations campaign to inform workers on how to utilized banking services in effecting such transfers.

3.2.8 Overall measure

Various agencies concerned with labour welfare activities will be strengthened in terms of budgeted funds and manpower and equipment needs. To prevent duplication of activities close cooperation among various agencies will be encouraged.

C. Sports and Recreation

1. Background

During the past two decades selected sports and recreation facilities have been made available to the public by the government. However, it is evident that these facilities are not adequate to meet the recreational needs of the general public nor are they distributed in an equitable manner, either in urban and rural area of the country. The lack of recreational sites can be seen from the existing number of these sports and recreation facilities throughout the country as listed below:—

Sports ground	82 units
Public Parks	18,500 rai
(In the City of Bangkok 800 rai)	
Zoos	3 units
Libraries	320 units
Museums	33 units
National Parks	23 units
National Recreation Parks	31 units

The shortage of recreation area and sport grounds is attributable to the following factors:—

1.1 There has been no master plan and definite government policy for the direct promotion of sports and recreational activities.

1.2 Coordination of work in this area among those agencies responsible for such activities is not effective and the dissemination of information on such activities arranged by public or private agencies continues to be limited and does not reach the general public.

1.3 Facilities, equipment and services on sports and recreation in both public and private sector are not adequate to satisfy the needs of society and groups of people in urban and rural areas when classified by either sex or age groups.

1.4 There have been no leaders in sports and recreation activities who are well equipped with the necessary skill, and knowledge to foster a continuing interests in sports and recreation among the general public.

1.5 The general public does not appreciate the meaning and importance of sports and recreation. Hence, they tend to use their leisure in activities which are not meaningful for the strengthening of physical and mental health and consequently does not contribute to the well-being of the society.

1.6 The enforcement of laws on town planning has not been effectively implemented with regard to the construction of public parks or the reserving of unused land for public use.

2. Targets

Targets on the development of sports and recreation have been set up during the Fifth Plan for urban and rural communities as follows:—

2.1 Urban communities

(1) The importance of sports and recreation will be disseminated through radio and television programmes at least for three to five minutes daily. Cooperation will also be sought from the private sector in arranging a weekly entertainment programme on radio and television.

(2) Cooperation will be sought from the newspapers to undertake a weekly public relations campaign on sports and recreation.

(3) Comprehensive green areas each covering 250 rai will be developed in 20 locations in four regions and three locations in the City of Bangkok.

(4) Five youth centres and 125 sports and recreation centres in educational institutions will be established.

(5) Seventy recreation centres will be set up in each province and 25 centres will be set up in the City of Bangkok.

(6) Five well equipped stadiums (similar to the regional zone stadium) will be constructed.

(7) Four thousand leaders on sports and recreation activities will be produced.

(8) An analysis and review at least 5 codes of law on sports and recreation will be undertaken, e.g., the Entertainment Establishments Act and the Town Planning Act.

2.2 Rural communities

(1) The importance of sports and recreation will be disseminated for three to five minutes daily through radio and television programmes. Cooperation will also be sought from the private sector in arranging of a weekly entertainment programme.

(2) Cooperation will be sought from the newspapers to undertake a weekly public relations campaign on sports and recreation.

(3) One hundred and seventy five playgrounds for children will be established at the district level.

(4) One hundred and seventy five children and youth centres at the district level will be set up along with 175 sports and recreational centres in educational institutions,

- (5) Seven hundred public recreation centres will be constructed at the district level.
- (6) One hundred and seventy five sports stadiums will be constructed at the district level.
- (7) Libraries will be set up in 175 districts and 100 tambons.
- (8) Twenty thousand community leaders on sport and recreation activities will be produced at the tambon and district levels.

3. Policy Guidelines and Measures

3.1 Policy guidelines. In order to solve the aforementioned problems, the Fifth Plan has laid down the following policies:—

- (1) Promote and support public relations work on sports and recreation in order to disseminate knowledge and information to all segments of the Thai population.
- (2) Provide sports and recreation facilities, taking into account the need of each community.
- (3) Produce leaders on sports and recreational activities who are well qualified and equipped with adequate skills to provide guidance to the public on various sports and recreational activities.

3.2 Development measures.

To achieve the established policies and targets, the following measures have been devised:—

3.2.1 Urban communities (Including the City of Bangkok)

(1) The Department of Public Relations, the Mass Communications Organization of Thailand and the Press Confederation will be encouraged to take part in conducting public relations to foster an interest by the public in sports and recreation activities and arrange effective recreational programmes for the general public.

(2) With improved cooperation between the public and private sectors, sports and recreation facilities and equipment will be provided. These will include:—

- Construction of sport stadiums, playgrounds, public parks, zoos, libraries, and small gardens in various urban communities.

- Provision of various recreational activities and programmes, taking into account the interest and needs of the public.

- Maintain existing sports and recreational facilities and provide wider access for the utilization of those services together with providing for the protection of security of life and property of those persons who use the services.

(3) Improve coordination among various government and private agencies through the formulation of an annual operation plan and related specific recreational plans for urban communities.

3.2.2 Rural community.

(1) Public relations activities of government agencies will be improved and the private sector will be asked to provide cooperation in conducting such activities. Recreational programmes will be provided on radio.

(2) Coordination of a management system between the government and private agencies will be undertaken in the planning for the development of sports and recreation in rural areas.

(3) Necessary personnel will be increased to act as community leaders in sports and recreational activities.

3.2.3 Legal measures.

Those agencies involved will be requested to undertake the revision and improvement of the Town Planning Act to reserve vacant space for public use, taking into consideration the common interests of the public rather than personal interests.

CHAPTER 5

SPECIAL TARGET GROUPS IN SOCIAL DEVELOPMENT

The achievement of social development targets during the Fifth Plan period will require the development of special target population groups consisting of women, children and youths and hilltribe people, of which the development strategy for each group can be described as follows:—

A. Development of Women

1. Background

The present population of Thailand is approximately 47 million with women comprising estimated 49.6 per cent of the total. From the trend observed during 1970-1980 it can be estimated that women contribute about 50 per cent of the labour force. It can be seen from the above cited facts that women constitute a substantial portion in the structure of population and labour force and hence they should be a major force in bringing about changes in national economic and social development. In reality, however, the role of women in the process of economic, social and political development has not, to date been adequately recognized by the society.

1.1 Use of female labour

Statistics from the National Statistical Office reveal that in 1980 there were 23.1 million women or about 49.6 per cent of the entire population. Of this number, about 10.3 million or 45.6 per cent of the entire female population were in the labour force and there are 10.23 million who entered the labour market. From the total of 10.23 million female work force who entered the labour market about 41.9 per cent were employed in agriculture, 7.4 per cent in industry and manufacturing; and the remaining 50.7 per cent worked in commerce, services and others.

The work force in agriculture is dominated by female labourers who have a low level of education. Since they are engaged in agricultural activities, i.e., they are self-employed, most of them are working without pay. At the same time they have to take responsibility of housework and child care which means they have a double role of both earning a living and taking care of their families.

In the industrial sector where the female work force constitutes about 40 per cent of the total work force women receive lower pay than men in the same position. Most women who are employed in this sector also have a low level of education.

1.2 Education

In actuality, although the education system provides equal opportunities for both sexes, the illiteracy rate is more prevalent among women. Statistics on illiteracy reveal that in 1980, illiterate persons above the age of 10 years totalled 4.25 million persons of whom 1.28 million were male and 2.98 million, representing 69.95 per cent were female. The low level of education among women stems from attitudes, beliefs and traditions rather than from differences in the sex. However, the latest trend shows that the literacy rate and op-

portunities of education for women have improved. With the extension of education into rural areas, attitudes of women in respect to education should be better.

Women also play a less active role in religion and cultural activities. For religion in particular the male can directly contribute to the maintenance of religion by ordination with women recognized only as supporters. In actual practice, however, it can be said that women also play an important role in the support of religion and cultural activities.

1.3 Public health

Although women are not a weak sex, however, due to the physiological limitations, they are more susceptible to contagious diseases. When women fall ill, the family's well-being is inevitably affected. Among pregnant women, there are many who have protein-calorie malnutrition which leads to the death of 80 per cent of the mothers who die from various illnesses during pregnancy.

Families living in rural and slum areas also have problems in taking care of too many children, which affects maternal and infant health and their general welfare. Thus, there is a need for the restriction on the number of children by family planning. However, to accomplish this, women have to take the major lead.

1.4 Social and political

In actual practice, women play a key role in social activities, particularly those living in the rural areas. For political and management activities however, there has been very little awareness among women in need for participation. This may be attributable to the fact that traditionally women are not brought up to play a dominant role. Hence, they tend to take only a supporting role in political and administrative activities.

From the aforementioned background the basic problems which prevent women from becoming more active in the economic and social development can be briefly stated as follows:-

(1) Owing to the social values which recognize male supremacy, most employers believe that men are more productive than women and thus, usually pay less to female workers.

(2) The society and family continues to believe that sons should be given more opportunities than daughters. In addition, women themselves are also to be blamed for neglecting the chance to receive education and occupational training. The lack of education and skills are major factors which limit the ability of women in seeking employment.

(3) The provision of health care services by the government to mothers and children has not been adequate. Public health service centres and public health officers have not been well distributed.

(4) The majority of women still do not have an adequate knowledge on health and nutrition.

(5) The role of women in the promotion of arts and cultural activities is still limited.

(6) The opportunities and experiences women receive are not sufficient to enable them to assume the leading role in political and administrative affairs and management at all levels.

(7) There has been no agency responsible for the coordination and promotion of women's activities.

2. Targets

Targets on women development during the Fifth Plan period are set as follows:—

2.1 Target areas and target population groups for short-term vocational training.

(1) Women activities and the role of women will be developed in various provinces throughout the country with special emphasis on areas of high poverty in 37 provinces.

(2) Provinces selected in each region include:—

— Northeast	16 provinces
— North	16 provinces
— South	5 provinces

(3) The target population group to receive vocational training will include females in the age group of 12-44 years old of 5.6 million people. Emphasis will be placed on raising the annual income per capita to at least 5,000 baht.

2.2 Provide education services through both in-school and non-formal education systems. In particular, the mass media will be used for the purpose of disseminating information to an estimated 90 per cent of women in all age groups throughout Thailand.

2.3 Education services will be provided through the in-school system to cover:—

— Pre-school	35.4 per cent of women in the age group
— Primary education	97.0 per cent of women in the age group
— Secondary education	48.3 per cent of women in the age group
— Upper secondary and vocational education	30.9 per cent of women in the age group
— University education	4.8 per cent of women in the age group.

2.4 Public health service

— Provide of disease prevention services to approximately 70 per cent of all women.

— Provide treatment to approximately 40 per cent of all women.

3. Policy Guidelines and Measures

3.1 Policy guidelines

(1) The government will take urgent steps to improve the working quality and skill and increasing job opportunities for women in order to ensure higher economic rewards and fair treatment.

(2) The government will take urgent steps to expand compulsory education and non-formal education with emphasis on both basic subjects and vocational training appropriate to the localities included in the expansion.

(3) The government will take urgent steps to promote an improved knowledge of nutrition and hygiene among women.

(4) The government will expand health services for women.

(5) The government will promote and support women's roles in the field of arts, culture and religion.

(6) The government will encourage private organizations and individuals to take part in activities along the above mentioned guidelines.

(7) The government will establish a national agency for planning, coordinating, promoting, follow-up and evaluation, and conducting research in related fields concerning women's roles and activities at every level.

3.2 Development measures

3.2.1 Labour

(1) Promote basic education and career training for urban and rural women in accordance with their ability and the needs of the labour market.

(2) Promote the training of personnel to work in rural areas.

(3) Increase incentives for working women by promoting a more cooperative effort between producers and consumers and integrated farming and marketing of agricultural products.

(4) Revise the labour laws, particularly those concerned with the use of female labour, and support the need for a social insurance system and the effective enforcement of labour laws.

(5) Improve and expand welfare services provided by government and private agencies. An agency responsible for welfare to women will be established.

3.2.2 Education

(1) Promote the right of women to avail themselves of the opportunity in both the formal and non-formal education. Enable women in rural and slum areas to have equal educational opportunities as those in urban areas through the proper distribution of schools, teachers instructional equipment, and the improvement of teaching and learning methods in accordance with local conditions and culture.

(2) Disseminate general information on day-to-day living through the mass media.

(3) Develop morality, initiatives and spirit of leadership in women, ensuring that they know their rights, duties and responsibilities.

(4) Provide training for women on the provisions of labour and general law and develop their skills through cooperative efforts between government and private agencies.

(5) Promote and support private agencies and institutions such as the Social Welfare Council of Thailand, the National Women Council and religious institutions to undertake their roles as the centres for the dissemination of knowledge on religion, arts and culture. More Sunday Schools on Buddhism will also be set up.

3.2.3 Public health

(1) Promote the extension of free health services, especially on mother and child care and delivery and post natal care to poor women both in the rural and urban areas.

(2) Promote the dissemination of knowledge on nutrition to women of all age groups with particular emphasis on those living in slums and rural area.

(3) Provide training for public health personnel and groups of housewives on maternal and child care and family planning so that they can transfer the knowledge gained to other people.

(4) Conduct campaigns for male sterilization vasectomies to assist women in implementing an effective family planning programme.

3.2.4 Political and administration

(1) Promote and support women's participation at all levels of administration from the village level upward by improving knowledge and creating understanding to bring about changes in values and attitudes of both male and females towards society.

(2) Bring about changes of social values and attitudes towards women through the provision of education and training for building confidence and creating leadership.

(3) Protect the welfare of women by the revision of laws to prohibit the discriminatory treatment of women.

(4) Transform the Committee on the development of women's role and activities into a secretariat office of the national committee responsible for the formulation of women development policies, collection and analysis of data, monitoring and evaluating, and acting as a coordinating body for women activities in both public and private agencies, in the country, and internationally.

B. Development of Children and Youth

1. Background

At present Thailand has a population of 47 million. Of this number, children and youth constitute approximately 60 per cent. There are 19.38 million of children and youth in the age group of 0-14 years and 9.74 million of children and youth in the age group of 15-25 years. Major development issues on children and youth are as follows:—

1.1 Nutrition problems

A recent study indicates that malnutrition among pregnant women is very much related to growth and development of infants. The decrease of breast feeding practices and the lack of knowledge on food and nutrition for children has resulted in the prevalence of third degree protein-calorie malnutrition among 2.2 per cent of pre-school children; second degree protein-calorie malnutrition among 13.1 per cent of pre-school children; first degree malnutrition among 37.7 per cent of pre-school children; and anemia among 10-30 per cent of pre-school children. The survey (undertaken in 1978) also reveals that malnutrition and related diseases were factors responsible for the mortality rate of 2.27 per thousand students. School-age children with protein-calorie malnutrition also accounted for 40-50 per cent, anemia 33 per cent and vitamin B deficiency 45-50 per cent.

1.2 Problem of physical and mental health

The public health statistics in 1978 show that the mortality rate among 0-1 year old children accounted for 12.5 per cent of deaths in all age groups while the mortality rate

among 0-4 years old children accounted for 20 per cent of the deaths in all age groups. Major causes of death among these children include various infectious diseases, gastro-intestinal diseases, respiratory diseases and tetanus. These diseases can be prevented by immunization and good nutrition. In addition, it was also found that about 49.12 per cent of all deaths children in the age group of 0-24 resulted from poisons and accidents.

Problems of mental health usually found are mental retardation and anxiety neurosis among children. Drug addiction, venereal diseases and other serious communicable diseases are also prevalent among children and youth. Children and youth also account for 54.48 per cent of the total drug addicts and 63.44 per cent of venereal disease patients.

1.3 Problem of basic intellectual ability

Owing to the lack of education on the part of the parents, children and youth in the rural and slum areas are not well brought up and lack the development of their intellectual and basic capabilities. Malnutrition also affect both physical health and mental health of children.

The provision of education services to further strengthen the intellectual capability of children and youth is limited. In 1980, children and youths at the lower secondary education who could continue their education to the next highest level accounted for only 29.39 per cent of the total school-age population. Apart from the lack of adequate education services in the rural areas, school curricula are not yet consistent with the needs and problems facing children and youth in the various localities. Children and youth still lack training on how to think, to solve problems, and to take initiatives. Lastly, various mass media do not realize their proper duties and responsibilities for children and youth development as evidenced by their disseminating improper values and examples of undesirable behaviour.

1.4 Problems of occupational preparation.

The number of children at the compulsory education level who do not continue their education is as high as 0.3 million persons, or representing 3.3 per cent of the total enrolled. There are also 1.7 million children in the age group of 12-14 years old who finished the compulsory education level but cannot afford to pursue a lower secondary education. These children are required to work, but due to the lack of occupational guidance and training, must enter the job market as unskilled labourers with low pay.

1.5 Social, cultural, moral and political problems

The number of children who become juvenile delinquents has increased substantially. These children are living mostly in Bangkok. Major factors leading to this problem include poverty, a lack of education on the part of parents, and a poor environment.

The adoption of unsuitable aspects of foreign culture has also increased among children and youth due to the lack of nationalistic sentiment, and the proper transfer of culture among family members. Moreover, the majority of children and youths still lack proper discipline and leadership due to inadequate training.

In addition, there have also been conflicting political ideologies among children and youth themselves vis-a-vis other groups of people due to the lack of proper understanding of political affairs. The differences in culture also create misunderstandings among children and youth, giving rise to administrative problems.

2. Targets for Children and Youth Development

2.1 Nutrition.

To reduce protein-calorie malnutrition among infants and pre-school children with particular emphasis on poverty areas in 37 provinces, the following targets are applicable:—

- (1) Provide supplementary food to the third degree protein-calorie malnutrition children, covering 0.23 million persons.
- (2) Promote breast-feeding among 11.15 million mothers.
- (3) Extend the lunch programme to 10,800 schools.
- (4) Provide nutritional and health education to 7.34 million pregnant and natal mothers.
- (5) Disseminate information on the production of nutritional food through the mass media.

2.2 Physical and mental health

- (1) Provide knowledge on population, child care, pre-and post natal care to 1.25 million mothers.
- (2) Expand immunization through vaccine inoculation to increase:—
 - BCG from 67.7 per cent to 70 per cent.
 - DPT (3 doses) from 49.2 per cent to 70 per cent.
 - Tetanus (twice for pregnant women) from 25.2 per cent to 50 per cent.
- (3) Increase the provision of drinking water in 21 per cent of the total schools to 50 per cent.
- (4) Control the rate of venereal disease among youth not to exceed 0.7 per cent.
- (5) Control the expansion of drug addiction among children and youth not to exceed more than 50 per cent of the total patients.

2.3 Intellectual capacity

- (1) Increase the dissemination of knowledge to mothers on child care, nutrition and the development of intellectual capacity for children of 0-14 years of age.
- (2) Expand the service centres for children in the 3-5 age group in target areas of 37 provinces. At least one class for small children will be set up in each district. The private sector will be requested to expand education at kindergarten level.
- (3) Reduce the drop-out rate and increase the rate of education continuation to Pathom 6 and Matayom 1 by:—
 - Improving in the standard quality of student at compulsory and secondary education levels in line with the new curricula. Effectively allocate resources for education development by providing a training to 131,180 teachers and reading materials for teachers in 32,795 schools.
 - Extending education supervision.
- (4) Extend education to 375,000 children and youth by establishing learning centres; provide comprehensive adult education; and provide rehabilitation services to cover at least 50 per cent of the total handicapped persons in this age group.

(5) Establish legal children and youth centres to cover all tambons within the life of the plan along with the establishment of children and youth groups as a first priority in all villages in the target areas of 37 provinces.

(6) Improve the dissemination of knowledge through various media to develop the intellectual capacity of school-age children and youth.

2.4 Social, moral and culture

(1) Limit the increase in the number of misbehaved children, deserted children and prostitutes during the Fifth Plan period.

(2) Provide informal education to 50 per cent of out-of-school children and youths.

(3) Emphasize the educational curricula and activities on social, morality, culture, political, and administration to in-school children at all levels of education.

(4) Select two outstanding persons and youths for citation in each province annually.

2.5 Occupation preparation

(1) Provide occupation preparation in agriculture, industry and commerce in accordance with local environments for all in-school children and youth in the 6-25 age group. Vocational guidance will be provided to children, youths and their guardians with information disseminated on labour market through radio at least weekly and by television at least monthly. Two million pamphlets will be distributed within the Plan period.

(2) Revolving funds for handicapped children and youths and for those with problems will be provided to 6,000 groups dealing with such activities during the Plan period.

3. Policy Guidelines and Measures

3.1 Policy guidelines

(1) Promote and support the provision of food nutrients to children to meet the minimum requirements of each age group.

(2) Accelerate and promote the prevention of physical and mental diseases among children; extend medical care services to children; and rehabilitation services to handicapped children.

(3) Promote and support the bringing up of children in a sound and healthy environment.

(4) Accelerate and support education and training activities for children and youths in order to equip them with necessary knowledge, skills and moral standards to become good citizens.

(5) Protect children and youth against dangerous environments.

(6) Accelerate the reduction of problems on labour relations and unemployment among children and youths by promoting the improvement of labour productivity; conducting surveys of labour market, and creating additional jobs.

(7) Encourage children and youth to express their ideas and opinions and to participate in activities which are suitable for their age group.

3.2 Development measures.

To achieve the laid down policies and targets set forth in the Plan, the following measures are considered appropriate:—

3.2.1 Nutrition

(1) Knowledge on nutrition and family planning will be provided to mothers and fertile women through public and private health centres, the mass media and primary health care system.

(2) Pre-and post-natal care services to be provided to pregnant women will be extended through traditional doctors, public and private health centres.

(3) Breast feeding will be promoted for six month old infants in various public and private health service centres. The mass media will also be encouraged to undertake a systematic on breast feeding.

(4) Supplementary food will be provided to the third degree and second degree malnutrition children through feeding centres, distribution for home consumption, child development and nutrition centres under the supervision of health volunteers, and community development workers.

(5) A nutrition and health care surveillance system will be set up and operated by all public health workers, school teachers and community development workers at the local level.

(6) The school lunch programme will be promoted and improved with the cooperation of the Ministry of Education, the Bangkok Metropolitan administration, the Ministry of Public Health, and the Food Products Development Research Institute.

3.2.2 Physical and mental health

(1) Undertake the expansion and extension of pre-and post-natal care services particularly in rural areas. Traditional doctors, health volunteers and communicators will be trained to provide public health services on a nationwide basis.

(2) Immunization services will be further extended through the improvement of vaccine distribution.

(3) Community sanitation services will be improved to ensure local participation.

(4) Curricula on health education and physical education will be improved.

(5) Dissemination of knowledge and information on the proper practice of bringing up children will be extended to parents and guardians. Counselling services to be provided to parents and guardians on children with special problems will be channelled through public service centres.

(6) Integrated public health services will be provided along with the arrangement of activities to strengthen physical health and mental health of children and youth in the target areas of 37 provinces and slum areas.

(7) Drug use among children and youth in the 15-25-year age group will be curbed through improved education and the dissemination of knowledge and information via in-school and out-of-school systems.

(8) Appropriate policies will be formulated on the expansion of rehabilitation programme for children and handicapped children. The private sector and mass media will be encouraged to play a greater role in this programme.

(9) Those mental health problems which are not hereditary will be reduced through the arrangement of recreational activities for children and youth at least weekly and by the promotion of regular physical exercises.

(10) Basic studies at least three topics per year will be undertaken on physical and mental health among children and youth.

3.2.3 Intellectual capability

(1) Dissemination of knowledge and information on the development of children in the 3-6 year age group will be undertaken through public and private service centres, mass media and local groups.

(2) Primary and low secondary schools in rural areas will be upgraded to enjoy a similar standard of quality as those in urban areas.

(3) Higher educational opportunities will be made available by granting more scholarships and improving the system of selection.

(4) A radio and television inspection unit will be established to support national education according to the Regulation on Radio and Television Broadcasting B.E. 2518.

(5) Applicable laws and regulations will be revised to provide future effective control of the mass media.

(6) In-school and non-formal education will be extended to children and youth in both rural and slum areas.

(7) Coordination with private agencies will be undertaken for the provision of education activities for children and youth. Emphasis will be placed on the setting up of learning centres, youth centres at the tambon level. the provision of occupation training and education through mass media. A conference to coordinate work on children activities between the public and private sectors will be held at least twice annually, along with undertaking the monitoring and evaluation of programmes and projects by various agencies concerned.

(8) All radio stations will be encouraged to arrange a one-hour education programme daily.

3.2.4 Occupation training

(1) Emphasis will be given to the provision of knowledge in agriculture industry and commerce in line with local needs. Teachers will be encouraged to instill students with good attitude on performing manual labour.

(2) Education and vocational guidance will be provided to students in their last year of primary and secondary education.

(3) New vocational courses will be introduced in in-school and non-formal education curricula to serve the needs of people in the targeted poverty areas in 37 provinces. Local resources will be used as much as possible.

(4) Effective enforcement of law on the utilization of child labour will be observed with the cooperation of the Labour Department, Police Department and the Ministry of Industry.

(5) A job creation programme will be undertaken for youth in each educational level in each region with particular emphasis on the targeted poverty areas in 37 provinces. Job placement centres will also be set up in each provinces.

(6) Guidance and dissemination of labour market information will be provided to children, parents and guardians through the mass media.

(7) Urgent steps will be undertaken to revise the labour protection law, and the arrangement of training programmes on labour protection for labour inspectors.

(8) Urgent steps will be undertaken to mobilize capital from domestic and external sources in the setting of a revolving fund for financial assistance to children and handicapped children.

(9) Effective controls on the environmental conditions of factories will be undertaken with the cooperation of the Ministry of Public Health, the Bangkok Metropolitan administration, the Ministry of Industry, and the Office of National Environment.

3.2.5 Social, culture, morality and politics

(1) Guidance services on child and family services will be provided in various service centres and in both public and private schools.

(2) Periodic campaigns will be conducted via the mass media on child care and good family relationships.

(3) Teaching and learning methods in school and religious institutions will be improved.

(4) The penalty for persuading children and youth in committing crimes will be increased with the cooperation from the Ministry of Justice and the Police Department.

(5) Teaching on arts and culture will be accelerated and its coverage extended with the cooperation of Office of National Culture and all levels of public and private educational institutions.

(6) Campaigns will be undertaken through the mass media on the dissemination of proper and interesting cultural activities.

(7) Committees at both the central and provincial levels will be set up to control law enforcement among service establishments and mass media in the 10-15 provinces where these problems are serious.

(8) Training on societal values, morality and culture will be provided for teachers and in-school and out of-school youth leaders.

(9) Coordination between religious organizations and education agencies on the provision of morality training for children and youth will be promoted through seminars.

(10) Agencies concerned on cultural matters will be encouraged to arrange activities on the Thai culture. A centre for arts and cultural promotion will be set up on an experimental basis for each region and appropriate cultural activities will be carried in both central and local level at least three times annually.

(11) Agencies concerned will be asked to devise measures on the control and prevention of those activities considered inappropriate to the Thai culture. Knowledge on comparative cultures will be disseminated through the mass media.

(12) Various educational institutions, government agencies concerned, and the mass media will be encouraged to develop the necessary programme and disseminate information on politics in line with the constitution in order to instil the proper political ideology among children and youths. Training of children and youth leaders on political and security matters will be held annually.

(13) Agencies concerned will be encouraged to arrange activities in which children and youth of different cultures can join together for better understanding.

C. Hilltribes Development

1. Background

Hilltribes in Thailand can be classified into six main tribes Maew, Yao, Mueur, Lesour, Egor, and Karen. These hilltribes are settled in the Northern highland and Western border of the country. An official survey in 1980 revealed that there were 2480 hilltribe villages with the total population of 348,193 persons. It was also estimated there were approximately 1,000 hilltribe villages which the survey could not reach. Problems faced by the hilltribes include the following:—

1.1 Population

The birth rate among hilltribe people is still high 4.3 per cent per annum. Better distribution of public health services has resulted in a decreasing trend in the rate of infant mortality. During the Fifth Plan period it is envisaged that the hilltribe population will increase at an average of at least 10,000 persons annually.

1.2 Economic and social problems

(1) **Occupation and income.** Most hilltribe people undertake agriculture primarily to meet their own consumption needs. Cash income averages 3,500-10,000 baht per family per year.

Shifting cultivation practice is very popular among hilltribe people due to the lack of knowledge on production techniques in agriculture. This type of agriculture practice has given rise to the destruction of natural resources and has created environmental problems. Moreover, owing to the higher price of opium compared with other economic crops, hilltribes in many villages, particularly in the upper North continue to grow poppy.

(2) **Health.** Poor health among hilltribes is a major problem inhibiting development. This has been attributable to unhealthy sanitary conditions, the lack of doctors, and an inadequate knowledge of good health and nutritional practices. There is also a traditional belief among the hilltribes utilization of opium as medicine which has caused opium addiction among hilltribes. Also, the treatment of diseases is usually provided by the village witch doctor.

(3) **Education and information.** The illiteracy rate among hilltribes is as high as 88 per cent (on average) owing to the lack of awareness and realization of the value of education and inadequate education services provided by the Government to the hilltribes.

1.3 Problem of the destruction of watershed areas

Shifting cultivation and encroachment of forest areas for cultivation have brought about the destruction of watershed areas. The depletion of forest areas has been partly brought about by the encroachment into the forest land for cultivation by hilltribes. According to the satellite census during 1973-1977, the forest lands in the Northern region were reduced from 95,842 square kilometers to 68,588 square kilometers during this period, or almost six percent annually.

1.4 Border security

To date those hilltribe villages which have not been organized in accordance with the Administrative Act still account for about 70 per cent of the total. It is estimated also that approximately 1,000 hilltribe villages are still not under the jurisdiction of any government agency since they are located in remote areas and are thus vulnerable to infiltration and subversion.

1.5 Drug addicts

Owing to favourable topographical conditions, poppy cultivation is very much practiced in the highlands of the Northern region. The survey undertaken during 1975-1976 indicated that the area under poppy cultivation totalled approximately 60,000 rai with an average yield of 571 grammes per rai. The marketing price of opium in hilltribe villages in 1980 was 15 baht per gramme, hence, poppy is a popular cash crop. With the rising price of opium, hilltribesmen in certain villages who had stopped growing poppy earlier are now cultivating it once again using more modern technology cultivation in the light of an increasing land constraint.

1.6 Land problem

Land problems can be classified into two areas, as follows:—

(1) **Misused land areas.** These are areas where land is not only misused but cultivated with improper techniques of production.

(2) **Watershed areas.** Where forests have been seriously destroyed through soil erosion, and the quality of soil has deteriorated.

1.7 Management problems

Currently there are many government agencies operating in the hilltribe areas without an coordinated overall master plan.

2. Targets

2.1 Major development targets

(1) Reduce the growth rate of the hilltribe population to 1.5 per cent per annum by the end of the Plan period.

(2) Convert hilltribe people into qualified Thai citizens with rights and duties as stipulated by law. Registration will be undertaken and identification cards will be issued to 10 per cent of the entire present hilltribe population receiving Government services.

(3) Accelerate reforestation in those areas where forests have been destroyed. The target is restore 73,800 rai of forest land during the Plan period, particularly in the Upper Northern part of the country.

(4) Undertake comprehensive development in 120 hilltribe villages through the distribution of social services and the granting of land titles.

(5) Government officers will visit hilltribe people in every village in order to establish relationships and a better understanding of government operations.

2.2 Target areas

(1) First priority target areas which have to be developed include Tung Chang district of Nan province, Mae Chaem district of Chiang Mai province, Mae Chan district of Chiang Mai province, Chiang Kam district of Payao province, Mae Sarieng district and Muang district of Mae Hong Sorn province, Ban Rai district of Uthai Thane province, Klong Lan district of Kampangetch province, Sri Sajnalai district of Sukho Thai province, and Sri-Sawat district of Sukho Thai province.

(2) Within these districts work will be accelerated on the comprehensive development of 120 villages.

3. Policy Guidelines and Measures

3.1 Policy guidelines

(1) Reduce the growth rate of hilltribe and highland population and to support the permanent settlement of hilltribe and highland population in suitable locations with particular emphasis on those densely populated communities which have a rapid rate of population growth.

(2) Accelerate resources rehabilitation and to prevent the destruction of resources by hilltribe and highland population.

(3) Accelerate the improvement of government agencies' services so that a more coordinated and comprehensive efforts can be undertaken on hilltribes development.

(4) Development in agriculture and other sectors will be undertaken to increase income for the hilltribes, reduce the dependence on poppy cultivation, and release labour from the agricultural sector to other sectors with emphasis placed on the development of cottage industries.

(5) Develop hilltribe as qualified Thai citizens and to enable them to help themselves. Emphasis will be placed on the provision of primary health care services and the reduction of drug addiction.

(6) Accelerate development efforts in various fields, encouraging the participation of hilltribe people. Closer contact and better understanding will be established in hilltribes' villages which have not yet been reached by government agencies.

3.2 Development measures

3.2.1 Short-term measures

(1) Family planning and control of migration will be undertaken to reduce the population growth rate of hilltribes' and highlands' people.

(2) Areas for permanent settlement of hilltribes will be established in the form of forest villages and development areas.

(3) Information on appropriate production techniques will be disseminated and promoted to increase productivity in agriculture and the production of cottage

industrial products. Assistance will also be given on marketing, credit, and the establishment of revolving funds.

(4) Land for cultivation purpose will be provided to those communities which are in urgent need of such land. Surveys will be undertaken and criteria set for settling of farmers in the deforested land areas together with the support given to the land reform programme in the lower Northern sub-region.

(5) The siting of central communities will be supported to generate industrial employment and absorb surplus labour from agricultural sector.

(6) Industrial development and the provision of public services in large hilltribe communities will be promoted. Special emphasis will be placed on the development of handicrafts, mining, and the establishment of agro-industries in the upper Northern sub-region.

(7) The establishment of new settlements which may result from constructing the transportation system will be prevented through improve coordination of forest conservation and transportation.

(8) The development of poverty areas will be undertaken together with the decentralization of small scale and cottage industries to poverty areas in order to prevent migration into the highlands.

(9) Local public health services will be extended through the primary health care system which, among other things, provides public health volunteers to serve hilltribes' people.

(10) The National Economic and Social Development Board will be a coordinating centre for the formulation of policies, programmes and projects of various government agencies responsible for the development of hilltribes' and highlands' people.

(11) Information will be disseminated to encourage the participation of hilltribes' people in development process and develop a spirit of self-help.

(12) The coordination of economic and social development activities in security areas will be strengthened.

3.2.2 Long-term measures

Social services including public health, compulsory education, and non-formal education will be extended to achieve a greater impact.

CHAPTER 6

ADMINISTRATIVE IMPROVEMENTS AND ORGANIZATION DEVELOPMENT

Increased efforts of the Government in extending social and social welfare services during the past have not yet brought about achieving the goal of improving the standard of living among the majority of the population. This has been attributable to the fact that the present administrative and organizational structures cannot serve as an efficient instrument for the distribution of social services. Problems of administrative and organizational structures can be summarized as follows:—

1. New agencies are created to be self-contained unit work without due consideration to the extent to which other agencies can play supporting roles. This has resulted in duplicating of work both in terms of areas and target groups.

2. There are many agencies which are working without systematic planning and coordination. This can be illustrated by the following:—

- (1) On population, there are 13 government agencies and two private agencies responsible for data research and collection. Further, there are 10 government agencies and four private agencies responsible for the implementing population policies and directives.

- (2) There are 21 government agencies responsible for environmental development.

- (3) There are 27 government agencies and no fewer than 2,000 private agencies involved in cultural activities.

- (4) There are 50 government agencies and no fewer than 300 private agencies working in non-formal education.

- (5) There are 21 government agencies and six private agencies working on food and nutritional activities.

- (6) There are 14 government agencies responsible for the protection of life and property.

- (7) There are 26 government agencies and seven private agencies responsible for the prevention and control of narcotics.

These agencies are now working independently with little coordination since there has been no assignment of a lead role to any particular agency involved in each field of work. In addition, there have also been no master plans to serve as guidelines for implementation in each field. There is still a need for implementation plans to be formulated on an annual basis to avoid duplication of efforts.

3. A number of newly agencies created have not exercised their duties and responsibilities within the jurisdiction of their authority. As is evident, there are now many agencies responsible primarily for coordination and planning but which also take part in implementation, thus competing with operating agencies.

4. The setting up of new agencies and organizations have not been undertaken in accordance with the overall administrative structure at both central and provincial levels. Hence, various legal and administrative impediments arise and hinder effective operation of these agencies.

5. Organizing work in the form of committees and sub-committees at present has not yet been effective.

In order to ensure the effective distribution of social services to target population groups in designated areas, it is essential that steps have to be taken to improve the organizational structure and concomitant administrative system in each field of activities, as follows:—

1. Population and Environment

1.1 Reduction of population growth rate

(1) Existing committees and sub-committees, particularly the Sub-Committee on Manpower Policy and Planning and the Committee on Population Management Education, will be upgraded to be committees at the national level. The National Economic and Social Development Board and the Ministry of Education will serve as the secretariat for these two committees in the formulation of development strategies and coordination of related work activities.

(2) Adequate resources will be allocated to support the work of agencies serving as the secretariat of various committees. The Secretariat Office must be well equipped with manpower and other resources to ensure the effective implementation of work both domestically and internationally, particularly the effective coordination with ASEAN member countries.

(3) Under the structure of national level committees, "ad hoc committees" can be set up as may deem appropriate and necessary to provide advice in each particular matter to the national level committees.

1.2 Development of population quality

(1) The National Economic and Social Development Board will serve as the coordinating centre of manpower development activities.

(1.1) Manpower production plans will be formulated in accordance with the needs of various government agencies. These government agencies will be also encouraged to prepare a "rolling" 5 year plan on manpower development.

(1.2) Planning will be undertaken and measures devised on the creation of jobs and occupational preparation particularly for manpower at vocational school and university levels. Monitoring will also be undertaken on a continuous basis.

(2) The Office of the Prime Minister will undertake the revision of laws and applicable regulation related to public administration to ensure the effective implementation of government policies and directives.

(3) The Ministry of Finance and/or agencies responsible for the supervision of public enterprises are to undertake the revision of laws and regulations on the qualification and component of public enterprise executive committee members, as well as the criteria for the recruitment, appointment, and terms of office for high level executives.

1.3 Preservation and promotion of environmental conditions

(1) Environmental units are to be set up in agencies responsible for planning on natural resources management and pollution control. These environmental units will under-

take planning, research, study, and analysis of environmental impact. They will also coordinate their work closely with the National Environmental Board and other agencies concerned.

(2) A joint committee composed of agencies responsible for environmental control and those agencies responsible for economic development activities effecting environmental conditions will be set up so that collaborative efforts can be undertaken on the establishment of an environmental service and management system network which will be concerned with both national and specific environmental activities.

1.4 Cultural development

The work on cultural development at present is separated in many fields, each of which is independent, for example, religion, culture, art, etc. There are also about 10 or so government agencies directly responsible for cultural development and 20 or so government agencies playing supporting role, together with 2,000 private organizations all over the Kingdom.

At present and in general, each agency responsible for cultural development operates independently. Although there are core agencies responsible for religion, art and culture under the Ministry of Education, the coordination among these agencies has not yet been satisfactory. Moreover, these agencies are located at the central level, there have no agencies at the provincial level to coordinate work and handle immediate problems. Hence, it is deemed necessary that the Ministry of Education should set up a coordinating committee at the ministerial level to coordinate the work on cultural development and work jointly with agencies both at the central and provincial levels in the formulation of action plans in line with this master plan. The Ministry of Education will also have to place more emphasis on the work in this field in conjunction with educational development.

2. Distribution of Social Services

2.1 Education development

The Ministry of Education will have to undertake the following actions:—

(1) Improve and spell out the administrative and academic responsibilities of agencies at the central and provincial levels in a more specific and clear cut manner. Various agencies involved, namely the Department of Educational Technique, Department of General Education, Department of Vocational Education, Office of National Primary Education Commission, Regional Education Office, Provincial Educational Office, and Provincial Primary Education Office will also have to undertake the improvement of education at lower than the university level to be consistent with the newly improved curricula.

(2) Improve the distribution of educational services through the decentralization of education administrative power to the provincial level.

(3) Improve the coordination and management of various education planning units so that they can play a systematic role in the support of education planning at the national level.

2.2 Public health development

An institute or a coordinating centre on public health development at the national level and a committee on the development of public health policy and management will be set up to formulate policies, strategies and measures which will lead to programme and project identification and to supervise work on public health development.

The public health development institute or its equivalent in title, will be a unit attached to the Ministry of Public Health.

2.3 Development of food and nutrition

The scope of work and responsibilities of the Secretariat Office of the Food and Nutrition Committee will be modified so that it can monitor, evaluate and coordinate work of various agencies responsible for the implementation of food and nutrition programmes more effectively.

2.4 Provision of water for consumption

There are now many government agencies responsible for the provision of water supply in the rural areas of the country. Hence, there is a need for the formulation of a master plan to identify the role of each agency in implementing its work in accordance with the government target to make water supply available for all people by the year 1990. In addition, a central office will be set up to supervise the implementation of the master plan. To this end, various implementing agencies will be encouraged to prepare annual operational plans.

2.5 Security in life and property

2.5.1 Crime

(1) Various agencies involved in the process of justice will be encouraged to improve their efficiency accelerate their work. To this end, the quality and efficiency of officers in the Department of Prosecution, Police Department, Corrections Department, Ministry of Justice and Department of Local Administration will be improved.

(2) A coordinating committee consisting of representatives from agencies involved in the process of justice and other qualified persons will be set up to coordinate work and encourage all agencies concerned to undertake urgent steps in the formulation of operational plans in accordance with the master plan.

(3) The prosecution system will be improved to meet international standards so that prosecutors will be able to play the major role and assume responsibility in examinations and prosecutions.

(4) Private agencies will be encouraged to participate in the prevention and suppression of crimes as well as the rehabilitation of convicts.

(5) An institute on criminology will be set up to serve as a central agency responsible for data collection, research and study, and to conduct systematic planning on crime prevention and suppression.

2.5.2 Road accidents

(1) The role and scope of work of agencies under the Police Department concerned with road accidents will be improved to ensure a clearer designation of responsibilities.

(2) Appropriate criteria on the transfer of traffic policemen will be set to prevent the transfers of experienced officers to other jobs which do not require such skills.

(3) Driving license centres will be set up throughout the country to regulate the issuance of driving licenses and to prevent the issuance of driving licenses to those who cause frequent road accidents.

3. Social Welfare

3.1 Prevention and suppression of narcotics

(1) A review will be undertaken on the improvement of the line of command of those agencies in the Police Department which responsible for narcotics prevention and suppression to ensure a better coordination.

(2) The three agencies responsible for narcotics prevention and suppression, i.e., the Police Department, Customs Department and the Office of Narcotics Prevention and Suppression will jointly undertake the formulation of mutually consistent operational plan for narcotics prevention and suppression. The exchange of intelligence information among these agencies will also be required.

(3) The Office of Narcotics Prevention and Suppression will be required to evaluate annually the work of various agencies responsible for narcotics prevention and suppression.

3.2 Social welfare

(1) Welfare services

The Department of Public Welfare will be responsible for the provision of welfare services with the close cooperation of private agencies and organizations to assure coordination in realizing the master and annual operational plans.

(2) Labour welfare

At present there are many agencies involved in the formulating, directing and guiding work safety policies and measures and a better coordination among them is a necessity. The Department of Labour should be the central coordinating body for the implementation of work at various stages in this areas.

With respect to the Workers' Compensation Fund, the Department of Labour should cooperate closely with the Department of Social Welfare, Mahidol University, representatives of employees, and employers on exploring the possibility for preparing health insurance system for workers.

The Department of Labour should also undertake work on the provision of labour welfare in coordination with the Ministry of Education, Ministry of Public Health, Ministry of Finance, Ministry of Public Welfare, financial institutions, private agencies, and employees and employers.

3.3 Sports and recreation

Various agencies involved in sports and recreation activities in both the public and private sectors should coordinate their work on disseminating information and promoting sports and recreation. These agencies include the Department of Public Relations, the Office of Mass Communications of Thailand, Thailand's Press Confederation, the Tourism Authority of Thailand, etc.

On the development of leaders for sports and recreation activities, those agencies involved should coordinate their efforts include the Department of Community Development, Office of Accelerated Rural Development, Department of Informal Education, Bangkok Metropolitan Administration, Bureau of University Education, Provincial Administrative Organization, the Tourism Authority of Thailand, and the Department of Physical Education.

On improving and modifying laws in the support of sports and recreation development, responsible agencies include the Office of Judicial Commission and Town Planning Office.

The Sports Promotion Organization of Thailand will be the central coordinating body in the implementing the work of the above mentioned agencies in both the public and private sectors in accordance with the master plan.

4. Target Groups for Social Development

4.1 Women

(1) A national level committee will be set up under the Office of the Prime Minister with a standing secretariat to serve as the centre for policy formulation and to coordinate the implementation of work of agencies in both the public and private sectors.

(2) Agencies working at the various levels will coordinate the implementation of their work. The Department of Community Development will be the central coordinating agency on this matter.

4.2 Children and youth

The role of the Office of Children and Youth Promotion will be more emphasized, particularly with regard to planning and the monitoring of work implemented by agencies involved in the development of children.

The Provincial Administrative Organization will be encouraged to exercise more responsibility on the development of the youth.

4.3 Hilltribes development

The National Economic and Social Development Board will be responsible for the coordination of hilltribes development and highlands Thai population policies, programmes, projects of various agencies, committees at the central level, and will participate in considering projects at the local level. The Office of National Economic and Social Development Board will also encourage various implementing agencies to prepare annual operational plans to accord with the master plan.

PART VI

POVERTY ALLEVIATION AND DEVELOPMENT OF BACKWARD RURAL AREAS

CHAPTER 1

POLICY GUIDELINES AND TARGETS OF RURAL DEVELOPMENT

1. Problems.

1.1 Although Thailand has experienced a remarkable overall economic growth during the past 20 years, economic benefits have not been equitably share, resulting in interregional and rural-urban income disparities.

1.2 During 1960-1979 the interregional and interpersonal income disparities have shown a tendency to increase. The Northeast, the poorest region, has a per capita income of 4,991 baht; whereas the residents of the Bangkok Metropolitan Area have an average annual income of 30,161 baht, or six times as much. And when Gross Region Products are compared, it will be obvious that most of the growth is applied to only the Bangkok Metropolitan Area and the Central region. In other regions, the GRP is declining which indicates that production expansion, especially in industries, services and commerce in the Bangkok Metropolitan Areas, has heightened the economic dominance of Bangkok and the Central region.

Table 1.1
Regional income distribution during 1960-1979

Items	North	North-East	South	Central	Bangkok Metropolitan Area	Country
1. Share of Gross Regional Product at constant price (in percentage)						
1960	15.8	17.0	14.1	29.3	23.8	100.0
1970	15.2	16.0	12.8	27.5	28.5	100.0
1979	14.9	14.7	11.8	31.2	27.4	100.0
2. Percapita income by regions at current price (Baht)						
1960	1,496	1,082	2,700	2,565	5,630	2,106
1970	2,699	1,822	3,858	4,662	10,234	3,849
1979	8,781	4,991	12,683	17,655	30,161	12,067

1.3 One important related phenomenon is poverty. It is evident that the proportion of people nationally classified as "poor" has declined. During the 1962 and 1963 the people under the poverty line accounted for 57 per cent of the national population. This was reduced to 39 per cent during 1968 and 1969 and further reduced to 31 per cent by 1975 and 1976. The proportion of the rural poor by comparison was 61 per cent, 43 per cent and 35 per cent, respectively. The explanation lies in the fact that while the overall economy has expanded rapidly it has only contributed partially to the distribution of income and social services to selected depressed areas. Despite the falling proportion in the incidence of poverty, the fact still remains that one-third of the entire population, ninety per cent of whom live in the Northeast and the upper North, are still in this category. More seriously, the continuing downward trend of the poor proportion may be reversed in the near future due to a slower rate in the expansion of agricultural land. If agricultural productivity is not increased the proportion of the poor will almost certainly cease to decline.

1.4 Only limited number of rural people have benefited from past development. They are mainly the rural people in irrigated areas. The rest of the people have received little of the benefits of development. Results of a number of studies indicate that there are not fewer than 10 million rural people who invariably suffer from economic hardship. They are scattered in all regions, with more people included in the Northeast and the upper North.

Table 1.2
Proportion of the rural poor classified by region

Region	Proportion of rural poverty (in percentage) 1975/1976	Number of rural population (person) 1979	Number of rural poor (persons) 1979	Percentage to total rural poor
Northeast	45	13,372,877	6,017,795	52.3
North	34	7,911,038	2,689,753	23.3
South	33	4,911,564	1,557,456	13.5
Central	15	8,399,136	1,259,870	10.9
Country	33.5	34,342,615	11,515,870	100.0

1.5 The classification of households into economic groups, i.e., the poor (with income of less than 165 baht per person per month), the marginal (166-220 baht), the better off (221-330 baht), and wealthy groups (more than 331 baht per person per month) indicates that there are 43 per cent of households in the Northeast which are classified as poor. And if the poor and marginal categories are grouped together the proportion rises to 70 per cent. Households which are considered wealthy, and better off account for only 7 per cent and 22 per cent, respectively. Income differences are in fact not the only factor which distinguishes these households. They also differ in their family size and the proportion between active and dependent members.

Table 1.3
Economic and social characteristics of rural
households in the Northeast classified
by income during 1975-1976

	Average	Poor	Marginal	Better off	Wealthy
Percentages of households	100.00	43.31	27.05	22.30	7.34
Monthly household income (baht)	1,346.00	823.00	1,192.00	1,768.00	3,661.00
Monthly household expenditure (baht)	1,485.00	1,162.00	1,432.00	1,762.00	2,680.00
Size of family (person)	6.11	6.72	6.01	5.38	4.69
Active members (person)	3.30	3.50	3.30	3.10	2.60
Dependent members (person)	0.85	0.93	0.82	0.75	0.78
Income per person per month (baht)	421.00	120.00	200.00	330.00	810.00
Expenditure per person per month (baht)	262.00	170.00	250.00	340.00	610.00

1.6 Poverty and low standards of living are closely related. The present public health indicators have shown that over 64 per cent of the Thai population suffer from intestinal parasite disease. In poor villages as high as 80-100 per cent of the people suffer from the same disease, the seriousness of which varies with their economic position. Ailments from anaemia are to be found in 40-50 per cent of the people living close to the Bangkok area. In areas further away the percentage rises to 90 per cent. Medical findings on nutritional aspect of rural people reveal that 70-80 per cent of pre-school children receive insufficient food, resulting in an annual infant mortality rate of 55,000 caused by malnutrition. Food deficiency in small children increases the possibility of the children contracting a number of other related diseases. Their long-term growth and vigour are inevitably affected.

1.7 Unless poverty, health and education problems are urgently solved, other social and political problems are certain to follow.

2. Causes of problems.

2.1 A number of factors are responsible for poverty and rural backwardness problems. One important factor is that past development objectives have concentrated almost solely on overall growth while expecting benefits from such growth to be triggered down to rural areas at a later stage. Consequently, direct resources allocation for rural development is relatively small. The primary emphasis on the overall growth meant that the government had channelled development efforts to the rural areas which had already been developed, particularly in irrigated areas, or areas with high growth potential.

2.2 Past government investment programmes have tended to be large in scale. More specifically, rural development projects tend to be welfare oriented. Alternatively, the government would take over and carry out development work without the people's participation. One obvious consequence is that when the government runs out of funds or has to withdraw, the rural people then return to their former conditions and are unable to help themselves.

2.3 The majority of government rural development projects are experimental projects in selected areas. Their pattern and form have been designed solely by the central administration which may lack insights into the real causes of problems. The Fourth Plan initiated rural development programmes which considered the basic needs of the people in the areas. But the problem was that the majority of the rural people had no conception of the nature of their problems. When asked, they tended to imitate the demands of the modernised areas in the hope that they would be lifted from their present poverty position. Their demands were, therefore, in the form of requests for roads, electricity and irrigation system.

2.4 The desire to be treated as modernised areas has caused a number of problems. Firstly, the possession of roads and electricity, for example, will not necessarily and directly help solve the fundamental problems of the rural people. In short these acquirements will not always help increase their productivity. Secondly, the benefits of such development may not be shared equally by all the people; therefore, their basic problems have not been solved. The rural poor are still faced with malnutrition and health problems. Most important of all is the people's ignorance of the true causes of their problems. This ignorance has hindered their life improvement effort and has confined them to receiving only what is being offered by the government.

2.5 Although the form of rural development during the Fourth Plan changed, the basic thinking remained the same. No success in rural development can be assured if there is no radical change in approach.

3. New rural development strategies.

3.1 The preparation of rural development programmes in the Fifth Plan is based on an entirely different concept from past Plans. The Fifth Plan is no longer attaching the major emphasis to overall output and national income. The chief aim of the Fifth Plan is people oriented so the rural poor will be able to help themselves. The government will have to allocate enough resources to them. A correct understanding of the causes of problem of poverty will have to be achieved first if effective remedies are to be recommended. The new rural development policy guidelines have five main salient features.

- (1) To be area specific, giving top priority to the high poverty concentration areas.
- (2) Develop high poverty concentration areas so that the people will have enough to eat and to clothe themselves. Basic public services will be made available in sufficient supplies.
- (3) Initiate people's self-help programmes
- (4) Solve the poverty problems in all localities with emphasis on low-cost and self-help techniques.
- (5) Encourage the maximum participation by the people in solving their problems.

3.2 A successful strategy emphasising high concentrated poverty areas requires that rural areas be clearly divided into two categories. In the first category are the general rural areas where the people can partly help themselves, and who have benefited from past development. In the second category are the poor rural areas. The distinction is both important and necessary for the efficient administration of rural development programmes. In this way, it may be expected that the benefits of development will rest genuinely with the rural poor, which is one aim of the Fifth Plan.

4. Development targets of the rural poor.

The targets to solve problems of the rural poor and to raise their standards of living are as follows.

4.1 Economic and social targets.

4.1.1 Economic targets.

The agricultural output projections prepared by the International Bank for Reconstruction and Development and the National Economic and Social Development Board have yielded the same result, which shows an annual agricultural output increase of one per cent at present in high poverty concentration areas. Thus, the Fifth Plan (1982-1986) aims at increasing this rate of three per cent per annum.

4.1.2 Social targets.

(1) The government will ensure the provision of basic a public health system and medical services at the district level. There will also be sufficient educational books supplied to the target areas within two years.

(2) A total of 2.2 million children and pregnant women will receive nutritional services. Another 3 million people will be covered under the scheme to provide clean water supply. And finally, not fewer than 5,000 farmers will be directly provided direct legal advice.

4.2 Budget target.

Resources must be mobilised for the solution of poverty problems. The target budget for poverty eradication programme in the Fifth Plan has been set at 8,593.38 million baht. Out of this total, 7,193.38 million baht will be provided from the national budget with the remainder 1,400 baht – to come from foreign loans.

4.2.1 Budgeted appropriations are set at 7,193.38 million baht and will be divided in the following manner:—

(1) Rural poor development budget.

A budget of 2,195.08 million baht will be used for the financing of a number of basic programmes including village activities and 15 basic infrastructural and production services projects which will start in 1982 and continue until the end of the plan period (See details of projects in the three work plans, particularly in the Appendix).

(2) Contingency funds.

Reserved funds of 4,998.30 million baht will be set aside for those projects which may be added to the operation plans to start from 1983.

(3) Foreign loans.

During the Fifth Plan there will be additional foreign loans of 1,400 million baht for the development of the rural poor. Details are given in the following table.

Table 1.4
Sources of the rural poor development budget during 1982-1986

Unit : million baht

Sources	Estimated Expenditures					
	1982	1983	1984	1985	1986	Total
1. Budget appropriation	622.20	1,171.18	1,400.00	1,500.00	2,200.00	7,193.38
1.1 Budget for the development of the rural poor ¹	622.20	771.18	241.68	267.72	292.30	2,195.08
— Village activities	199.45	248.38	204.68	223.27	243.13	1,119.31
— Basic services	368.43	492.48	2.20	2.20	2.20	867.51
— Production services	54.32	30.32	34.80	42.25	46.57	208.26
1.2 Contingency funds	—	400.00	1,158.32	1,532.28	1,907.70	4,998.30
2. Foreign loans	140.00	610.00	450.00	100.00	100.00	1,400.00
Budget for the development of the rural poor						
— Village activities	140.00	360.00	200.00	—	—	700.00
— Basic services	—	100.00	100.00	100.00	100.00	400.00
— Production services ²	—	150.00	150.00	—	—	300.00
Total budget for the rural poor development	762.20	1,781.18	1,850.00	1,900.00	2,300.00	8,593.38

1/ Budget of the 15 projects for the rural poor development.

2/ Not including foreign aid for programme of soil improvement with manure which amounts to 21.60 million baht.

5. Target area in rural development.

5.1 Principles in the selection of the target areas.

(1) As the new guidelines for rural development give primary emphasis to the high poverty concentration areas, it is necessary to have a clear concept of the target areas. In the selection, the principal criterion will be the actual physical areas, and not the income level. There are two reasons for this. Firstly, the concept using spatial distinction will assist in grappling with important causes of poverty concentration problems. Secondly, it is necessary to solve poverty problems in the areas from where the problems originate. If the people are not urgently assisted they have to find ways and means of living. The result has been the destruction of natural resources and migration, both temporarily and permanently.

(2) In the selection of target areas with high concentration of poverty problems the "district" level will be the main point of reference. This is not because districts represent the units where the problems have their most common characteristics. In fact, districts are different in their concentration of poverty problems. The choice of districts is based on the principle that they are relatively well-endowed with data and information which are readily analysable and testable. They are relatively few in number and are well-manned by government officials compared with the smaller units of sub-districts or villages.

(3) In distinguishing different levels of poverty the criterion of the concentration of problems will be used. When different districts in one region are compared, some districts will have a higher concentration of poverty problems than the others. To say that a district has a lower concentration is valid only if the district is compared to the others in the same region. Consequently, it is not surprising that a southern district which, by its regional standard, is considered to have a high concentration and yet compares favourably, say, with a Northeastern district with a medium concentration. It can be stated that if the government can solve some problems in a district with high poverty concentration, then the general situation can be said to have been improved.

5.2 Target areas as designated by regulations of the Prime Minister's Office.

(1) From the principles mentioned above, the office of the Prime Minister has established a set of regulations on January, 27 1981, stipulating target areas for rural development in the Fifth Plan. These regulations have specified 216 districts and 30 sub-districts in 37 provinces in the Northeast, the North and the South as target areas.

(2) The regulations also stipulate that government agencies must allocate sufficient funds and initiate as many projects as possible for rural development. In the formulation of projects based on the Fifth Plan, the specified target areas will rank high in priority. It is estimated that in the target districts and sub-districts there are approximately 7.5 million poor people, who account for 75 per cent of the rural poor population in the three regions.

Table 1.5
Number of districts and
Sub-districts in the target areas
during the Fifth Plan

Regions	Provinces	Districts	Sub-districts
Northeast	16	129	18
North	16	65	7
South	5	22	5
Total	37	216	30

The details and names of the districts in each region will appear in the Office of the Prime Ministry's regulations concerning the stipulation of target areas.

CHAPTER 2

POVERTY ALLEVIATION PLAN

In order to develop the rural poverty areas according to the set targets and the office of the Prime Minister's Regulations on target areas, major plans have been prepared which are aimed at improving the quality of life of 7.5 million people in the Northeast, the North and the South. The people will be assisted in overcoming their poverty related problems such as hunger, sickness, ignorance and general deprivation. There are four major plans, as follows:—

1. Rural job creation plan.

1.1 Main principles.

The rural job creation plan is an ad hoc plan which has been carried over from past years. It is necessary to carry on this rural job creation project during the Fifth Plan (1982-1986) as it will help with the income distribution aspect by generating employment opportunities to the rural poor after their harvesting season. The project also helps strengthen local authorities so that it will be more self reliant in the long run. Nevertheless, it must be borne in mind that the rural job creation plan is only a temporary remedy. Its role and importance must be reduced in the long run especially when the new rural development approach begins to gather strength.

1.2 Targets.

Important targets will be set for the employment of three million people in poor rural areas in the dry season.

1.3 Policies, guidelines and measures.

1.3.1 Policies.

Rural job creation policies in the Fifth Plan will be designed to be compatible with the principal plan for poverty alleviation in the following way:—

(1) The Fifth Plan will support the continuation of the rural job creation project as the latter will be an immediate measure to alleviate poverty problems and increase rural income.

(2) The government will create jobs in the target areas which cover 246 districts and sub-districts by focusing primarily on high unemployment areas.

(3) The basic needs of the rural people which cannot be satisfied in a timely by government agencies will be dealt with by the government's rural job creation project.

(4) The government will co-ordinate general development projects with the rural job creation project so that their activities will be mutually supporting.

1.3.2 Guidelines.

The Fifth Plan has formulated the following guidelines for the rural job creation programmes.

(1) Set aside an annual budget allocation specifically for rural job creation.

(2) Emphasise budget allocations for those 246 districts and sub-districts with the highest poverty concentration.

(3) Emphasize work which increases the capacity of the people.

(4) Encourage the people to play a more active role by participating in Tambon Council activities, with advice from government personnel.

(5) Train rural job creation programme officers at all levels for better co-ordination and smooth continuity in the implementation of general projects.

(6) Budget allocations to the sub-districts and villages will be based on the degree of seriousness and the urgency of problems.

(7) Emphasize labour productivity in order to achieve the permanency of projects.

1.3.3 Measures.

The following measures for the improvement of the rural job creation programme will be taken.

(1) Adjust the measures laid down by regulations issued by the Prime Minister's Office on rural job creation for greater compatibility with the Fifth Plan's guidelines in the alleviation of poverty problems.

(2) Allocate sufficient funds for rural job creation with special emphasis on areas of high poverty concentration.

(3) Modify regulations concerning budget allocations so that each project will be financed separately. This would help facilitate the work of implementing agencies. They will be less constrained and their work will serve the needs of each area and improve their living standards in these areas.

(4) Strengthen Tambon councils to increase their capacity to initiate and manage more projects. They will be assisted by local officials such as development officers, teachers and Tambon agriculture officers.

(5) Introduce activities such as training sessions or seminars to educate rural development project officers of all levels.

(6) Projects which have been initiated by government agencies, but have not been effectively implemented, will receive additional attention. Labour intensive activities such as the digging of distribution canals of water resources projects will be stressed.

(7) Assign technical personnel with knowledge in the elementary design, engineering and construction of projects to assist local authorities.

(8) Tambon councils will be asked to maintain records of public properties which have been constructed by financial grants from the rural job creation programme. The records will help with the maintenance work and the subsequent development efforts.

(9) There will be surveys of poor and unemployed people in sub-districts and villages so that these people may be given top priority when there are newly created jobs.

1.4 Projects and activities.

The Fifth Plan has incorporated a number of projects and activities in accordance with the already outlined policies and measures. They are as follows.

(1) Projects will be designed for the construction and improvement of community buildings and facilities which will be useful to the local people for their welfare, health and economic well-being. Tambon councils will have their own headquarters. There will be planned construction of a village reading centre, a nutrition centre, a small children development centre, a medicine centre, rain-water storage tanks, a rice barn for rice bank activities and a stable for a cattle bank. After completion, all these facilities will be looked after by Tambon councils and concerned local agencies.

(2) Village water reservoirs will be constructed and existing ones will be improved for human consumption and other uses. Relevant projects include the digging of distribution canals, ponds and the planting of trees. The use of local materials which are in abundant supply will be encouraged. For example, bamboos may be used to support concrete blocks instead of steel. The construction which requires technique, be carried out by the Office of Accelerated Rural Development. University students who are experienced will be encouraged to lend extra help in the supervision of construction work and design.

(3) Buildings and other facilities which are under ordinary government projects will receive further improvements for the maximum benefits of the rural people. Projects under provincial plans will also receive similar treatment. Some examples of efforts which will be made in this connection are the digging of distribution canals to farm land from existing irrigation projects; the rehabilitation of water resources to serve as village fish ponds, and the participation in the reforestation project by the Forestry Department.

(4) Technical manuals will be published for distribution to the provinces, districts and sub-districts. Tambon council members will receive technical training to enable them to prepare future projects and other long-term plans. Information surveys will be undertaken beforehand.

(5) Public property rehabilitation projects will be launched with the participation of the people. The government will provide the necessary materials such as cement and machinery and equipment for local development activities. The Tambon councils will provide basic tools for the people to rehabilitate their water resources and other public properties, the funding for which will be provided from the rural job creation programme. The public will be educated to appreciate the protection of their public properties.

(6) Projects will be launched which will employ people in the planting of fast-growing trees or other utility yielding trees. The government will provide the seedlings, or will buy the seedlings from the people for distribution. Important considerations, however, is the need for appropriate soil conditions and the season of the year when the plantings are to take place.

(7) The village transportation network will be improved and expanded. Inter-village roads will be improved. More co-operative efforts will be encouraged among different Tambon councils by the joint implementation of projects such as the digging of canals connecting nearby villages.

(8) A skilled labour utilization project will be introduced. The labour may be employed in making cemented water containers, earthenware jars and handicrafts with the government providing instructors and some necessary materials such as cement and wire, etc.

(9) The objectives and methods of the rural job creation programme will have to be explained to all concerned by for example, the organization of seminars for government officials, Tambon councils and village committee members.

(10) Natural resources conservation projects will be put forward. The activities may include the construction of soil erosion protecting walls in the Northeast and the planting of trees in watershed areas and in the communities.

2. Village development activities.

2.1 Main principles.

This plan calls for solving problems of the rural poor at the village level. They face problems of undernourishment because their staple diet of fish is fast disappearing; and their stock of poultry is also dwindling as a result of diseases. The rural poor are chronically short of essential farm equipment such as draft animals, and having to pay high rental charges for their use. They are also short of water resources. Existing ones need rehabilitation for proper utilization. Another crucial problem is that the rural poor are not organized and mobilized systematically to overcome their problems together. There is an urgent need to strengthen their joint community and group activities.

2.2 Targets.

Within the Plan period, the main problems will be solved in 5,000 villages comprised of more than one million rural poor people.

2.3 Policies.

(1) Tackle protein deficiency problems in poor rural areas with co-operation between the government and the people.

(2) Develop local natural resources to increase food production for the people. Utilization of uncultivated land will be particularly emphasized.

(3) The government will set the precedents for developing an operation plan for the eventual ownership of factors of production by the farmers. The private sector will be encouraged to follow suit.

(4) Occupational development to increase village income using local resources will be promoted and the local people will be encouraged to strive for community participation and strengthen rural organizations.

2.4 Village activities and budget allocation.

Guidelines for the development of the planned village activities are as follows.

(1) Construct 375 village fish ponds and improve water resources in 4,000 places which are under the rural job creation programme. It is expected that 180 million fish will be produced during the next five years.

(2) Increase village water resources by the construction of 368 village ponds, the dredging of 164 swamps, the construction of 60 reservoirs or weirs, and the development of ground water resources.

(3) Introduce small animal disease control programmes in 3,968 villages annually in the three regions. It is expected that altogether 10,841 villages will eventually be covered.

(4) Make available 22,400 water buffaloes and cattle for lending or for sale to poor people to assist them in their production a total of 22,400 households are estimated to benefit from this scheme.

(5) Rehabilitate 1,968 small scale water resources. Savings promotion for production group will be set up and a rice bank will start operation for 462 member groups comprised of 46,200 people. Handicraft industries and other occupations concerned with water management in agricultural production will be promoted among 300 groups of about 46,200 people.

(6) Renovate deserted land for the cultivation of field crops, or growing of perennial trees, or use as pasture land, depending on the land conditions and the experience of the farmers.

(7) Promote the agricultural processing industry, such as peanuts and cashew nuts. The growing of these agricultural products will be promoted in selected areas.

(8) Encourage farmers to interplant fast-growing trees and grass in between rows of forest trees in reserved forest land. The grass will serve as an additional food source for the cattle.

Starting in 1982 there will be five projects which will be based on guidelines of development specified in 2.4. The remaining activities will be developed in the following years. The five development projects to be carried out will have a total budget of 1,119.31 million baht. The type of projects, responsible agencies and the cost of each project are presented in the following table.

Table 2.1
Village activities planned projects

Projects	Responsible Agencies	1982-1986 Amount (Million baht)
1. Village Fisher Project	Fishery Department	466.45
2. Village Water Resources Construction Project	Office of Accelerated Rural Development	434.73
3. Village Small Animals Project	Livestock Department	66.13
4. Cattle Bank	Livestock Department	36.00
5. Rural Poor Development Project (Under the Second Stage of the Financial Loan Project)	Community Development Department	116.00
Total		1,119.31

3. Basic services provision plan.

3.1 Main principles.

The plan calls for providing the necessary public services for the rural poor.

3.2 Targets.

(1) Offer social services such as the treatment and prevention of diseases in at least half of the target area in the first year, and the whole of the target area by 1983.

(2) Provide in the first year of the programme, nutrition and clean water supplies to one million people in 5,000 villages.

(3) Make legal advice available to 5,000 poor people.

(4) Publish experience-enhancing books which are locally appropriate for no fewer than three million primary school children living in the North and Northeastern regions.

3.3 Policies.

(1) Raise the standard and capacity of rural public health services to serve primarily the needs of the rural poor during the first two years of the Fifth Plan.

(2) Contain health problems especially those caused by food and water borne diseases, by the provision of basic public services for the rural poor.

(3) Improve the nutritional aspect of the people to solve the food deficiency problems in infants and pre-school children in poor rural areas.

(4) Deal with problems arising from conflicts, exploitation and lack of legal justice among the rural poor.

(5) Provide primary school children instruction which will broaden their learning horizon. The accumulation of this learning experience will contribute to the efforts to solve poverty problems according to new approaches in rural development.

3.4 Projects, activities and budget allocation.

To attain the set targets, the following guidelines for the development activities have been laid down.

(1) Construct 22 district hospitals annually with a capacity of 10 beds; 11 district health centres; and 15 sub-district health centres during 1982-1983.

(2) Select annually from the existing villagers 70,000 Health Communicators (Paw Saw Saw) and 7,000 Village Health Volunteers (Aw Saw Maw). They will be taught basic health education and employed in future basic health projects.

(3) Tackle protein and energy deficiency problems in children. The project will concentrate on observing the weight of the children. It is expected that 400,000 children aged 0-5 years in 5,000 villages will be included in the project. In addition, 11,200 children aged 6-12 months and 67,000 children aged 1-5 years who suffer from second and third degrees malnutrition will be given extra food.

(4) Provide legal education courses to the people in the target areas. The main beneficiaries will be development officers of the Community Development Department and the village committee members. In the initial stage 800 people in 16 Northern provinces will receive such training. A legal advice bureau will be set up in Chiang Mai in 1982.

(5) Publish experience-enhancing books which are locally appropriate. A total of 590,000 books will be published for 3,120,000 primary school children (Forms 1-6)

(6) During 1982-1983, make available potable water supply in rural areas by setting up 500 small scale waterworks each year. Revolving funds will be used to finance the construction of 3,000 rainwater tanks and 128,000 water containers in different areas annually. A total of 2,000 Tambon council members and 2,000 local handymen will also be encouraged to attend training courses annually.

The planned activities are grouped under six projects which call for a budget of 867.51 million baht to be classified according to the types of projects, responsible agencies and budget allocations as shown in Table 2.2.

Table 2.2
Basic public services planned projects

Projects	Responsible Agencies	1982-1986 Amount (Million Baht)
1. District Hospitals Construction Project	Office of the Under-Secretary of State, Ministry of Agriculture	679.30
2. Basic Public Health Project	Office of the Under-Secretary of State, Ministry of Agriculture	82.60
3. Nutrition Project	Department of Health	16.57
4. Legal Advice for the Rural Poor Project	Office of Policy and Planning, Ministry of Interior	9.40
5. Supplementary Books Production for the Rural Poor Projects	Ministry of Education	16.20
6. Clean Water supply for the Rural Poor Project	Department of Health	63.44
Total		867.51

4. Production plan.

4.1 Main objectives.

The plan calls for increasing productivity to relieve the rural poor of their pressing problems. The technique, i.e., investment saving, which can be adopted easily by the majority of the rural people will be made known to the rural poor.

4.2 Target.

The main target is to increase agricultural productivity in upland rice farming and in the poor areas which suffer from high salinity content and deteriorating soil conditions.

The general rate of productivity growth which is now as low as one per cent will be increased to three per cent. Some of this additional output will be channelled for local consumption in accordance with the nutritional plan to increase food intake.

4.3 Policies.

(1) The main policy will be to increase agricultural productivity by rehabilitating the local natural resources. The Northeast invariably faces the problem of saline soil; the North is affected by the problem of low yield in upland rice farming; and the depressed areas have to contend with deteriorating soil conditions.

(2) Those projects which seek a new low cost production technique and simple operation will be strongly supported for wider application.

4.4 Projects, activities and budget allocation.

Guidelines for the development of the planned activities are as follows.

(1) Produce food in sufficient quantity and with high nutritional value for the people in food deficient areas. Under this project 160,000 children and 80,000 pregnant women will be included.

(2) Research work will be undertaken in 10 rice experimental stations to find new upland rice varieties which have a high yield. Production technique will be improved with emphasis on self-help technology, and high-yielding varieties will also be introduced. The Department of Agricultural Extension will be responsible for low land areas, whereas the Department of Land Development and the Department of Public Welfare will look after upland areas. It is expected that 65 districts in 16 Northern provinces will come under this project.

(3) Instruct field officers and farmers how compost and green manure are prepared. This is necessary since a target has already been set for increasing rice output per rai from 260 kg/rai to 325 kg/rai.

(4) Establish Saline Soil Development Centre in the Northeastern region to find salinity resistant plant varieties particularly rice varieties. Research will also be undertaken to find ways to prevent the spread of soil salinity.

The plan will include four projects. The total budget of the projects is 208.86 million baht and the details are shown in Table 2.3.

Table 2.3
Production Planned Project

Projects	Responsible Agencies	1982-1968 Amount (Million Baht)
1. Food Production for Nutrition Project	Department of Agricultural Extension	86.58
2. Upland Rice Project	Department of Agriculture	30.54
3. Soil Improvement Using Organic Matters Project	Department of Land Development	76.12
4. Northeast Saline Soil Development Project	Department of Land Development	15.02
Total		208.26

Appendices
Budget Appropriation Table

Unit : Million Baht

Plans/Projects	1982	1983	1984	1985	1986	Total 1982-1986
1. Village Activities Plan						
– Village Fishery Project	75.45	84.00	93.00	102.00	112.00	466.45
– Village Water Resources Construction Project	50.00	60.85	98.15	107.74	117.99	434.73
– Village Small Animals Project	12.00	13.53	13.53	13.53	13.53	66.13
– Cattle Bank (1982-1983)	12.00	24.00	–	–	–	36.00
– Rural Poor Development Project (Japanese Loan Project: New Village Development Programme 2)	50.00	66.00	–	–	–	116.00
2. Basic Public Services Plan						
– District Hospitals Construction Project (1982-1983)	267.00	412.27	–	–	–	679.30
– Basic Public Health Project (1982-1983)	41.30	41.30	–	–	–	82.60
– Nutrition Project (1982-1983)	11.18	5.39	–	–	–	16.57
– Agricultural Credit for the Rural Poor Project ^{1/}	–	–	–	–	–	–
– Legal Advice for the Rural Poor Project	1.00	1.80	2.20	2.20	2.20	9.40
– Supplementary Books Production for the Rural Poor (1982-1983)	16.20	–	–	–	–	16.20
– Clean Water Supply for the Rural Poor Project (1982-1983)	31.72	31.72	–	–	–	63.44

^{1/} Not including the money from Bank for Agriculture and Agricultural Co-operatives (BAAC) which provides credit in the target area.

Plans/Projects	1982	1983	1984	1985	1986	Total 1982-1986
3. Production Plan						
– Food Production for Nutrition Project	7.00	10.14	17.50	24.28	27.65	86.58
– Upland Rice Project	9.80	4.53	4.64	5.31	6.26	30.54
– Soil Improvement using Organic Matters Project	22.50	15.64	12.66	12.66	12.66	76.12
– Northeast Saline Soil Development Project (1982)	15.02	—	—	—	—	15.02
Total Budget for the 16 Rural Poor Development Projects	622.20	771.18	241.68	267.72	292.30	2,195.08
Development Funds for Additional Plans (Contingency Funds)	—	400.00	1,158.32	1,532.28	1,907.70	4,998.30
Total Budget for the Development of the Rural Poor ^{2/}	622.20	1,171.18	1,400.00	1,800.00	2,200.00	7,193.38

^{2/} Not including foreign loans of 1,400 million Baht during 1982-1986

Foreign Loans Table

Unit : Million

Plans/Projects	1982	1983	1984	1985	1986	Total 1982-1986
1. Village -- Level Activities						
— Village Water Resources Construction Project	90.00	200.00	200.00	—	—	490.00
— Rural Poor Development Project (Foreign Loans Project : NVDP 2)	50.00	160.00 ^{1/}	—	—	—	210.00
2. Basic Public Services						
— Agricultural Credit for the Rural Poor Project (1982-1983)	—	100.00	100.00	100.00	100.00	400.00
3. Production						
— Soil Improvement Using Organic Matters Project ^{2/}	—	5.4	5.4	5.4	5.4	21.60
— Northeast Saline Soil Development Project (1982)	—	150.00	150.00	—	—	300.00
Total^{3/}	140.00	610.00	450.00	100	100	1,400.00

^{1/} Including loan used in the administration of projects totalling 35 million Baht.

^{2/} Cost of soil improvement accelerator (using micro-organisms) paid for by foreign aid.

^{3/} Not including the foreign aid for the Soil Improvement Using Organic Matters Project which amounts to 21.6 million Baht.

PART VII

NATIONAL ECONOMIC AND SECURITY DEVELOPMENT

CHAPTER 1

NATIONAL ECONOMIC AND SECURITY DEVELOPMENT

1. Summary of existing situation.

The socio-economic development objectives of the Fourth Plan were intended to support and strengthen both national defence capabilities and security management. As a result, Thailand's Armed Forces have become more self-reliant. Resource mobilization and budget allocations for economic, social and security development have been made more compatible. However, foreign military aid has continued to decline, thus forcing the government to seek foreign loans of approximately 20,000 million baht to finance the Armed Forces development programmes. These loans have considerably upgraded the national defence capabilities and improved security management substantially.

Nevertheless, there are still the following major issues that must be solved:—

1.1 The efficiency in the utilization of defence development resources must be improved. In the past there have been insufficient co-ordination efforts between defence planning, management, and budgeting, thus contributing to the uneconomical use of available resources. Simultaneously, past foreign loans for the Armed Forces development programmes have been subject to higher interest rates, shorter debt repayment periods, and relatively more limited sources of funds available.

1.2 The mobilization of manpower for national defence has been carried out within a limited sphere and has a high cost per soldier compared with neighbouring countries. Therefore, Thailand has a relatively limited size of force in relation to our defense tasks.

1.3 The emergency mobilization programme is expensive and has high import content. The method of "stockpiling" requires large investment. The government must encourage the private sector to participate in the emergency preparedness programme.

1.4 Efforts to develop the areas with security problems have been made in 162 villages, resulting in the reduction of security threats and alleviation of poverty problems. However, there are about 7,500 target villages to be covered under this security development programme. Most of the villages are engaged in agriculture. They are poor and inadequately served by existing social delivery services. This security development programme must also be co-ordinated with the normal economic and social development projects. High-level co-ordination machinery is needed for this programme.

2. Policy guidelines for the co-ordination of economic and security development plans.

Although past development efforts have allowed for complementation between the present problems has necessitated an even more systematic approach to their solutions. The government must formulate clear policies and definite plans which can set well coordinated targets for the reduction of security threats, and which will be complementary to and supportive of the economic and social development objectives of the Fifth Plan. It is necessary to recall the main policies of the Plan, i.e., alleviating poverty problems; increasing efficiency in the utilization of the limited natural resources; reduce imports and foreign reliance;

maintain economic and financial stability; and most important of all the Plan provides guidelines which will help prepare the country to counter external threats and to maintain national independence and sovereignty. The Fifth Plan calls for achieving a proper balance between economic, social and security development efforts in order to maximize the utilization of national resources effectively.

In order to enable economic and social development programmes to support security development, the government has laid down the following guidelines:—

2.1 The co-ordination of economic and security development plans will emphasize the economic capability of the nation to support such efforts and stress self-reliance. Development projects which support security will be given priority to increase the cost effectiveness of government spending.

2.2 In the upgrading of Thailand's national defence capabilities, existing national defence activities will be mobilized, for the organization of "total defence system". The system will be economical for the government and will make full use of existing organizations. It will avoid defence borrowing with high interest rates. The system will use government budget buttressed by financial assistance in the form of military loans at concessional terms from friendly governments.

2.3 Promote strategic export industries such as small communication equipment, food preservation and medicinal plant industries in order to mobilize their production for national emergency use if necessary.

2.4 Encourage self-reliance in main strategic supplies such as light weapons, medicinal plants, preserved foods, and rural energy sources.

2.5 Accelerate the development of rural villages in those areas with security problems so that they will become self-defending and self-supporting. Accelerate rural economic and social services delivery systems with emphasis on those projects which are low in cost and quick in providing results.

To develop village-level organization to serve as the leading cores in the development and defence of the villages.

3. Targets of security and economic development.

Major targets for increasing national defence capabilities and for supporting economic and social development and the rural areas are as follows:—

3.1 Establish up a total defence system by primarily reinforcing those units which are responsible for territorial and civilian defences. The defence budget has been planned for an average annual increase of 20.9 per cent.

3.2 Implement economic and social development projects with a view to altering the natural physical conditions for defence purposes. The Eastern region, vulnerable to security threats, will be developed economically as well as strategically. Strategic roads in the region must be constructed by 1984. The construction of 180 other strategic roads in other security sensitive areas has been planned.

3.3 Security development projects will be implemented in the sensitive areas, i.e., those areas which are under strong communist infiltration or serve their actual strongholds. There are nine such areas which include: Lahan Sai district, Buri Ram province; Nong Kung Si district, Kalasin province; Huai Bang Sai, Nakhon Phnom province Sakon Nakhon and Kalasin provinces; Nduang sub-district, Muang and Pak Chom districts, Loei province; the

areas along the Mae Sot — Umphang highway, Tak province; Ban rai district, Uthai Thani province; Ngao-Ngao river basin, Mae Hong Son district, Chiang Rai province; and Phra Saeng district, Surat Thani province.

Altogether there are nine programmes which are expected to be completed by the middle of the Fifth Plan period. More strategic development areas may also be designated and given high priority during the Plan. A total budget of 1,100 million baht will be required during the Fifth Plan period.

3.4 Establish 4,000 Volunteer Self-Defence and Development Villages (VSD villages or Aw Paw Paw villages). The target is to set up 800 villages annually. There will be 630 villages in the central region, 1,240 villages in the Northeast; 1,010 villages in the North; and 1,120 villages in the South. It is estimated that 970 million baht will be necessary for this programme.

3.5 Before the end of 1984, set up 190 self-defence villages along the Eastern border. This is for strategic reason as well as for the benefit of displaced Thai citizens who have been uprooted because of the border security problems and the influx of refugees into the country.

3.6 Find permanent settlements for minority groups in areas with security problems. They are in the upland area in the North and along the Western border area. The plan will be to legalize these villages as this will help slow down the encroachment and destruction of watershed areas and forest land in the target area.

3.7 Develop and strengthen the major national resources management which are strategic to national security including arms, medicines, small communication equipment, energy sources, food, and manpower.

The following targets have been set:—

(1) Attain self-reliance in light arms production for civil defence, such as double-barrelled rifles and bullets. Research into the prototype production of weapons will be encouraged. Production will either utilize domestic resources for emergency production or by imitating foreign models to raise the level of technology.

(2) Expand the knowhow as well as undertake research to enable the wide application of medicinal plants which will, at the same time, support the principle of self-sufficiency in basic health services. Volunteer Self-Defense and Development Villages will be the first target areas.

Medicinal plants and other traditional remedies must be developed in order to replace 63 per cent of common household medicines by the end of the Fifth Plan period. Medical supplies such as aspirin, physiological saline and antibiotics will be replaced by traditional remedies to be ready for a state of emergency.

(3) Promote the use of domestically produced small communication equipment such as walkie-talkies in every Volunteer Self-Defense and Development Village. Their production for export purposed which will be compatible with the economical total defence system and the state of preparedness will also be encouraged.

(4) Promote local energy production to substitute various local energy sources for imported oil. This includes small scale hydro-power electricity generating system, wind power, bio-gas, and charcoal. The local energy substitution project is expected to cover 400 Volunteer Self-Defense and Development Villages by the end of the Fifth Plan period.

(5) Encourage and support the food preservation industry. Export production will be promoted to achieve an increased rate of 25 per cent annually. The success of the in-

dustry will strengthen agricultural production and the industrial preparedness programme. Previously, food containers have been mostly imported. Research and investment will thus be undertaken to make use of domestic raw materials to reduce foreign dependence. In rural areas high priority will be given to Volunteer Self-Defense and Development Villages in the achievement of self-sufficiency in food production, especially rice and protein yielding food.

(6) Upgrade rural local leaders from military recruits and reservists to act as core groups in the Volunteer Self-Defence and Development Villages leadership. During the Fifth Plan, 20,000 recruits and reservists will be given training for this purpose.

4. Target areas for security development.

The prevailing situation which poses certain threats to the national security has required identifying specific target areas for security development purposes. Government agencies and state enterprises will be instructed to place special emphasis on those economic and social development programmes and projects which will support national security management and which will accord well with national defence and strategic plans in specific areas.

Target areas are classified in the following way:—

4.1 Security development area along the border.

The area covers the borders from Chiang Rai to Trat provinces. Self-defence border villages will be organized as strategic villages either for tactical reason or for solving the problems of displaced Thai citizens who have been affected by the influx of refugees and threats to their security. The target areas can be sub-divided in conformity with the strategic plan of each individual area, as follows:—

- (1) Security development area along the border in the Central region.
- (2) Security development area along the Northeastern border.
- (3) Security development area along the Northern border.

The Southern and Western border areas are classified under 4.3 and treated as areas with special security problems.

4.2 Security development areas are defined as those areas which have been infiltrated or threatened by insurgents.

There are further subdivided into two areas, as follows:—

4.2.1 Defensive area.

This area is generally understood to be either slightly affected by security problems or showing symptoms of the problem. The majority of the land area which has been classified as defensive area needs to be developed intensively. The new rural development approach will be adopted together with the training for citizens to become acquainted with the safety measures laid down in the internal security operation plan. In short, the development efforts will be directed towards the implementation of the Volunteer Self-Defence and Development Villages programme.

4.2.2 Strategic development area.

This area is so seriously affected that civilian government development agencies cannot conduct normal operations. The police, the military and other civilian bodies have to be called into tackle security problems using economic, social and military means.

4.3 Areas with special security problems.

These are the five Southern border provinces and the upland areas in the Northern and Western regions which have suffered from security threats and various terrorist activities and problems of minority groups.

CHAPTER 2

THE CO-ORDINATION OF ECONOMIC AND SECURITY DEVELOPMENT PLANS

During the Fifth Plan, efforts will be made to co-ordinate economic and security development plans to achieve maximum efficiency and minimum costs. The prime aim is the economic and social development for national security management. The development of the national defence capabilities, the economic and social development, and the solution to security problems call for such a vast amount of budgeted funds resources allocation must be well co-ordinated in order to achieve maximum efficiency. This is particularly relevant during the Fifth Plan because of the tight monetary situation and the necessity to maintain financial stability.

The Fifth Plan specifies the following major plans to co-ordinate economic, social and security development:—

1. Budget co-ordination plan.

Possible internal and external security threats during the next five years have necessitated the improvement of the country's national defence capabilities. Economic and social development programmes will be adversely affected if there is not a proper plan of co-ordination.

There fore, the following policies, plans and guidelines for the national defence budget allocation have been promulgated:—

1.1 Policy to increase national defence capabilities and potential

(1) Increase defence capabilities on a self-supporting basis to counter any external or internal threats which may occur during the Plan period.

(2) Strengthen the National Armed Forces while at the same time maintaining economic stability and a strong external financial budget, whereas foreign loans will be used mainly for the procurement of imported strategic supplies. Loans for the Armed Forces development programmes will be sought which provide for a long-term debt repayment period.

1.2 Armed Forces development plan.

To improve the capability and efficiency of the Armed Forces on a total defence system basis. The system will lead to the optimum utilization of existing resources which will also ensure maximum efficiency among all concerned agencies.

National defence under the total defence system will consist of the following:—

1.2.1 Strategic defence.

The entire Armed Forces will be strengthened. The use of regular forces for internal security maintenance will be limited to the minimum. Area protection will be manned by the territorial defence and civilian defence units.

1.2.2 Territorial defence.

This will include the safeguarding of basic infrastructural facilities which is beyond the capacity of civilian defence units. The forces comprise territorial defence units,

light infantry and cavalry units, military volunteers (Rangers) and other paramilitary units such as the Special Action Force (Naw Paw Paw), border patrol police force, and the provincial volunteer territorial defence unit.

Under the total defence system the territorial defence forces will be strengthened to take control of security sensitive areas. The regular forces will come in only if necessary.

1.2.3 Civil defence.

This will include civilian defence activities managed by civilian volunteer organizations, such as the Thai Volunteer for National Defence Foundation, Village Scout Organization, Volunteer Self-Defence and Development organization, and other volunteer groups.

Under the system the civilian defence force will be the central organization mobilizing people's support on behalf of the government in safeguarding the villages and improving the standard of life.

1.3 National defence budget.

The total defence plan will facilitate defence budget allocation as it will indicate whether a work plan is for security or for other purposes. The distinction will ensure the efficient use of defence budget allocations which, in turn, will lead to proper co-ordination in the economic and security development plans.

The total defence budget will require 4.4 per cent of Gross National Product which is the same ratio as the Fourth Plan which is translated into 24 per cent of national expenditures. There will also be foreign military loans equal to 4.4 per cent of the defence budget. However, the defence budget volume is approximately 2.3 times larger than the Fourth Plan defence budget. The Fifth Plan has therefore laid down the following guidelines for defence budget allocation:—

- (1) To allocate the defence budget in conformity with the changing threats.
- (2) To seek alternate foreign loans if the national revenue does not permit high defence spending.
- (3) To allocate budgeted funds according to performance.
- (4) Defence tax measures may be devised if necessary.

1.4 Measures.

To develop the total defence system, the following measures will be taken:—

(1) Appoint a national committee composed of representatives from the Ministry of Defence, Supreme Command Headquarters, Internal Security Operations Command, Ministry of Interior, National Economic and Social Development Board, and other agencies. The committee will be the co-ordinator of the planning agencies. It will determine defence plans under the total defence system, and will supervise and modify the work plans of government agencies in accordance with the changing situation.

(2) Give high priority to budgetary requirements for defence spending under the total defence system. The security situation, economic capability, and the compatibility of the work plans will be simultaneously scrutinised so that the more critical activities will be granted their fair share of the budget. The usual incremental budgeting or original base budgeting will be avoided.

(3) Draw up a foreign defence assistance plan similar to foreign borrowing programmes for economic development purposes in order to mobilize resources for defence purposes in a systematic fashion.

2. Resources development plan for economic preparedness.

The internal and external political situation has obliged the government to have an economic preparedness plan to face any possible state of emergency. It is necessary to find an appropriate method of resources mobilization, so as not to undermine the economic structure. Therefore, great efforts will be made to ensure adequate principal strategic supplies, and economic resources will be systematically sought to guarantee a reserved pool of supplies to replenish what has been already utilized. During the Fifth Plan period, it will not be possible to secure all the strategic supplies as they involve an enormous sum of financial commitments. It will be more realistic and appropriate to identify the critical strategic supplies and to develop them adequately and systematically. The vital supplies include arms, medicines, small communication equipment, food, energy and manpower. The ultimate aim is self sufficiency in these supplies.

2.1 Main strategic supplies preparedness plan.

(1) Modify the old approach which favoured the stockpiling of strategic materials. Instead, emphasis will be given to the development and strengthening of the production base to support economic preparedness. Private investment in the production of strategic supplies or their assembly will be promoted.

(2) Undertake studies which will enable the prompt transformation of existing industries into manufacturers of necessary strategic supplies.

(3) Encourage the wide export production of strategic supplies as the production base will be a crucial factor in an emergency. The government should encourage manufacturers by giving their tax incentives and other facilities as a special case.

(4) Revise promotion policies of the Board of Investment to encourage more utilization of domestic resources. There should be a specific policy to promote joint international investment to broaden the production base of strategic supplies.

(5) Encourage the private sector to keep reserved supplies of strategic materials such as rice, medical supplies, petrol, and motor vehicle spare parts. The reserved supplies will not only contribute to economic preparedness, but they will also ensure continuity of services and stability of prices. The government will maintain records of reserved supplies and devise an effective control system.

2.2 Specific strategic supplies preparedness plans.

The Fifth Plan has identified specific plans for the development of arms, medicine, small communication equipment, energy, food, and manpower in the following way:—

2.2.1 Arms.

Self-sufficiency in arms production is a vital condition for the national defence in the security management policy. But the lack of domestic basic industries has hindered the attainment of self-sufficiency in arms production. However, the following arms development and preparedness plans have been envisaged:—

(1) Personal and civilian weapons and bullets.

The demand for these materials under the total defence system is extremely high, and is far beyond the capability of government factories to satisfy. The

plan will be to expand existing factories and at the same time encourage private domestic and foreign investment in the industry to meet domestic demand.

To attract private investment to the industry the government will provide precise arms procurement targets and allow arms production for export under government supervision. It is planned that self-sufficiency in these types of arms production will be attained within the Fifth Plan period.

(2) Fighting unit arms and ammunition.

Apart from small rocket launchers, domestic demand for heavy arms is not very large. It will be uneconomical to produce them domestically. However, there are some items of arms for the fighting unit that may be needed more and more for the Armed Forces development programmes. Joint domestic and foreign investment in the production of these items will be encouraged. The government will provide clear procurement targets and allow export production. But the buying countries will have to be approved by the government. In addition, the government must be prepared to take over the industry and carry out the operation itself if necessary. The arms that have little domestic production potential will be sparingly encouraged less with a view to promoting the domestic arms industry so that it can acquire vital skills for emergency production. Research and development in the prototype weapon production will be actively promoted. Foreign models and their latest technological advances will be closely observed for domestic application.

(3) Development of the industrial base.

Although there are factories in Thailand which produce spare parts, or certain raw materials must be imported. The establishment of an arms factory is extremely costly and time-consuming. Moreover, there are no economies of scale because of the low level of demand. During the Fifth Plan, however, the government will encourage private factories with potential to invest in those industries which process such strategic raw materials as alloy, aluminium and petrochemical products. The joint procurement and storage plans among the three branches of the Armed Forces will be established in order to minimize storage and maintenance costs.

2.2.2 Medicine.

To attain self-sufficiency in the supply of modern medicine can be realized only if there are proper petro-chemical industries which the country does not yet have. In order to reduce foreign dependence and to start building up the basis towards eventual self-sufficiency, the Fifth Plan will concentrate on efforts to develop and popularise the use of traditional remedies. There are the following plans:-

(1) Encourage self-reliance on basic health services in rural areas, particularly security sensitive areas, using medicines from traditional herbal roots which can be found locally. The public will be informed of the benefits and uses of traditional remedies via Village Health Volunteers (Aw Saw Maw), and Health Communicators (Paw Saw Saw). Special attention will be given to the treatment of diseases such as gastro-intestinal diseases, common colds, headaches, respiratory tract diseases; and vitamin deficiency diseases.

(2) Encourage the growing of medicinal plants for local use and for the supplementary income. The government will provide seedlings and encourage investment in the production of semiprocessed products for exports.

(3) Support research leading to the wider use of traditional remedies.

2.2.3 Communications.

The lack of a sound basic industrial base and sophisticated technology has hindered the development of the electronic industry which produces large communication equipment. In the case of small communication equipment such as simple walkie-talkies the local producers will be able to satisfy local demand with support from the government. Production of such equipment will be beneficial to the defence efforts as they are in great demand by government agencies. The following steps will be taken:—

(1) Promote their production and distribute small communication equipment to the Territorial Defence Unit, Civil Defence Unit and the Armed Forces. The existing communication network at the Tambon level will be made more efficient.

(2) Encourage the wider use of such equipment in remote rural areas, especially those which have difficulties in contacting government agencies. Such a system will save a great deal of time and cost.

(3) Encourage private organizations to become acquainted with the equipment and to make full use of them under government supervision.

(4) Improve the quality and promote export production. Apart from giving tax concessions and modifying various complicated procedures, the government will set a product standard to guide local producers and the government will buy such products if the prices are reasonable.

(5) To set up a central unit to keep the records of the number of the equipment used by the military, civilian, and the private sector. The exercise will contribute to a stage of readiness for mobilizing on an emergency basis, and tests of readiness will be carried out periodically.

2.2.4 Energy.

The Fifth Plan calls for reducing the import of energy sources except those necessary to maintain a reserve stock for security requirements. The reduction measures include the following:—

(1) Research on alternate energy sources will be promoted and oil will be substituted for as much as possible. Energy substitutes which can be produced locally will be given special support. Examples include the production of electricity using hydro-power, especially from small scale water resources; wind power; and the conversion of engines using gas which are now produced domestically.

(2) In rural areas, particularly those with security problems, local self-sufficiency in energy requirements will be a foremost objective. The use of bio-gas and energy from fuelwood will be promoted.

(3) Direct research and development efforts towards the transformation of plants such as sugar canes and cassava into energy yielding sources to substitute oil.

(4) Carry out a detailed study of the location of mobile electricity generators used by the military, government agencies and the private sector in order to mobilize for emergency purpose.

2.2.5 Food

Although Thailand is well endowed with natural resources, when the security aspect is taken into consideration it is imperative that the food preservation industry must be developed rapidly. The industry will reduce economic losses from natural decomposition. It will stabilize product prices in that some food products will always be available. It

also gives a higher value added to food production and brings in foreign exchange earnings. From the security point of view, the food preservation industry will enhance the country's national defence capabilities in times of war. The Fifth Plan has designed the following programmes to promote the industry:-

(1) Development of food preservation industry.

Hitherto, the food preservation industry has been dominated by the fruit canning industry. The Government will, therefore, promote the preservation of protein food, such as meat and marine products. The industry will be export oriented. Its success will ensure a tactically beneficial contribution in an emergency. The industry will be granted promotional privileges. Efforts will also be made also to develop local raw materials which may be used in the canning and packing industry to cut down the reliance on imports.

(2) Development of food preservation technique in rural areas.

Security sensitive rural areas will be urgently assisted to become self-reliant in food. Their production capability in rice, fishery and livestock will be raised. Village and rural organization will be encouraged in the management of their rice and cattle banks. The village food preservation industry will be encouraged via the introduction of useful techniques.

2.2.6 Manpower.

In the development of manpower for national defence, the following will be given consideration:-

(1) The lack of local leadership is an important problem facing rural development. The Fifth Plan will attempt to build up local leaders from the existing reservists and army recruits to act as core liaison officers, particularly in Volunteer Self-Defence and Development Villages.

(2) The government will encourage national defence training among government officials and private citizens and ensure their prompt mobilization. In addition, recruitment lists with details of types of occupation and level of education must be updated constantly with the co-operation from the central as well as regional administrations.

3. Road construction plan for security.

3.1 Summary of existing situation.

In the past, although the government has allocated substantial amounts of funds for the construction of road networks which have brought about overall economic growth, the security sensitive rural areas have largely been left out. Government development efforts have met with difficulties whereas the people increasingly turn to the insurgents create security problems. In such areas roads are an essential condition which enables the government to provide proper services and protection to the people. Good roads also facilitate the efficient distribution of economic benefits as well as improved national security management.

During the Fourth Plan period, the government had realized the importance of security road construction and authorized up to the construction of 181 routes totalling 5,365.88 kms. up to the 1981 fiscal year. The total budget amounted to 7,959.9 million baht, of which 3,616.87 million baht had already been allocated. The other 4,343.03 million baht will be provided from the next fiscal year budget.

Road construction for security purpose can be classified into three types, as follows:-

(1) Strategic routes, i.e., those which support the strategic plans of the Army Regions in their defence efforts.

(2) Security routes, i.e., those which lend support to the strategic plan under the total defence system. The routes form part of the security development plan in that they will enable government forces to take control of areas and to develop them.

(3) Security supporting routes, i.e., those which will be used for the development of infiltrated areas. They will serve as supply routes for the military as well as for local producers.

3.2 Problems.

(1) Previously, the construction of routes for security and for economic development has been considered somewhat independently of each other. The potentially complementary benefits which could be derived from more co-ordination work in the construction had been realized. There are, as a result, routes which could have been jointly constructed and unified. Requests for the construction of security routes in particular has greatly increased, by more than 100 per cent annually, which has caused budgetary problems.

(2) The civilian agencies responsible for construction frequently encounter geographical problems and are seriously obstructed by the insurgents. The result has been either a delay in the work or cancellation of projects.

(3) The procedure leading to the construction of security routes is complicated and lengthy, at times lasting up to six months. Construction contracts do not generally specify the beginning date. The uncertain timing has resulted in delays in economic, social and security development plans.

3.3 Targets.

To accelerate the construction of security roads which were given top priority in the Fourth Plan and are to be completed within the Fifth Plan period. The total distance will be 3,238 kms.

3.4 Development measures.

The following measures have been proposed:—

(1) Improve the co-ordination in the planning of roads for security and for maximum economic benefits at minimum costs.

(2) Military engineers from the Army Region will be called in to supervise the construction work in security sensitive areas where regular government officials are not able to function properly. The supervision work will increase the military engineers' capability and help save the costs of protection forces.

(3) Ensure that the budget for the construction of security roads will not be less than that of the Fourth Plan.

(4) Periodically update the priority listing of security roads emphasizing the most crucial strategic roads. Security and security supporting roads of secondary importance may be delayed if there is a budget constraint.

(5) The planned routes will be economically constructed as laterite roads. Asphalt roads will be permitted only if necessary.

(6) Improve and modify regulations and procedure relevant to the construction of security roads for prompt implementation.

4. Economic, social and security development co-ordination plan.

The past development approach maintains that overall economic development in itself will ensure national security. Therefore, past development has overlooked the remote rural areas where security problems originate. Past projects have demanded a great deal of resources and have not been cost effective. The resulting security problems have inevitably necessitated a great deal of government budget. In recognition of the above problems, the Fifth Plan has designed the following plans:—

4.1 Guidelines for the preparation of security supporting economic and social projects.

(1) Designate security sensitive and poor rural areas as target areas in the development projects in an effort to redistribute income and to develop social welfare and general security.

(2) Encourage small economic and social development projects with the people's participation. Prompt and cost-saving development will encourage the people's readiness in adapting to political developments and other organisational issues.

(3) In preparing development projects using resources from a particular local area, such as forests or watershed areas, the local people must have a share in their benefits.

(4) Organize security sensitive villages so that they will benefit from both existing and planned government services. This will ensure that regular government units will be able to enter the areas and operate efficiently.

(5) Encourage the private sector to participate in the promotion of economic stability by sharing with the government in those development projects which will increase rural productivity and employment. The government will provide basic facilities including privileges in credits and taxes.

(6) Economic and social development projects will designate clearly the objectives, the time frame, and expected results including their compatibility with other projects in the target areas.

4.2 Budget allocation guidelines for security supporting economic and social projects.

(1) Give top emphasis to projects which will increase efficiency in agricultural production and encourage industrial expansion. Rural employment and income will be improved, particularly in security sensitive provinces.

(2) Allocate budgeted funds to road and water resources improvement projects and for the provision of basic facilities for rural development.

(3) Encourage economic and social development projects, especially public health and education services so as to improve the people's skill.

(4) Emphasize forest conservation and improvement, especially in watershed areas so as to safeguard the natural resources for rural people's production. Income yielding employment will be encouraged and forest encroachment will be stopped.

(5) For urgent economic projects to solve immediate security management problems the central fund will be used so as not to affect normal economic and social development budget.

CHAPTER 3

DEVELOPMENT OF SECURITY SENSITIVE AREAS

Under the present circumstances, economic and social development and national security must be considered jointly. Economic and social means must be utilized to support national security. To this end, the plan to develop security sensitive areas has been envisaged in the following way:—

1. Development of security sensitive areas along the borders.

1.1 Facts.

Political changes in the neighbouring countries have posed a number of serious security problems, particularly along the Eastern border from Chiang Rai to Trat provinces. The whole stretch is vulnerable to aggressive actions both from internal and external sources. The external political changes have brought about an influx of refugees, who have added to the burden of the country. The refugee community also poses a potential threat to the national security in that there may be saboteurs among them.

The livelihood of the people along the Eastern border has been threatened and the government's economic and social development programmes have been disrupted. Consequently, both the national security and the development programmes have been adversely affected.

1.2 Policies.

Economic and social development efforts will be coordinated and integrated with the national defence plan to accelerate and strengthen the effort of the villagers both in economic self-reliance and in the performance of the national security role.

1.3 Operation guidelines.

The solution of problems in the security sensitive areas must consider both physical and local cultural factors which can be sub-divided as follows.

1.3.1 Operation guidelines for the border in the Central region.

The area is vulnerable to attacks as it is largely a flat plain. There are a number of weak strategic positions which could bring about major fighting. The people are backward economically and have been affected adversely by the presence of refugees. Their problems must be urgently addressed.

Consequently, top priority is given to the area. It will be necessary to utilize economic and social tools to support the defence effort. Basic infrastructural programmes must contribute to the transformation of the natural conditions for strategic defence in an emergency or war time, as well as to the country's economic well-being.

The following projects have been designed:—

(1) Establishment of Volunteer Self-Defence and Development Villages along the Thai-Kampuchean border.

There will be 35 villages along the Eastern border which must be set up by the end of 1983 fiscal year.

(2) Road construction, particularly along the border.

Such construction will facilitate the prompt deployment of forces and to hasten the transportation of the people to safe areas while the fighting may be taking place. There will be six such routes.

(3) Construction of 6 reservoirs.

These will obstruct the deployment of opposite forces and will provide water for human consumption, agriculture and fishery.

(4) Tree plantation along Chantaburi and Trat.

This project will serve as a natural barrier.

(5) Encourage the development of agricultural land such as rice fields and pasture land which will be compatible with the strategic plan. The development must support military operations such as the natural concealment and the air defence system.

(6) Promote economic production such as the setting up of Rice and Cattle Banks. They can take the form of subsidiary co-operatives. Self-sufficiency in food in every village will be encouraged.

1.3.2 Operation guidelines for the Northeastern border.

Change in the political systems in neighbouring countries has caused constant tension along the border area indicating the possibility that open large scale attacks could be directed at the country with the support of various internal terrorist groups.

Local people live in backward areas and generally face problems of drought and economic hardship. To solve their problems, effective co-ordination between economic and social development and the strategic plans is necessary, involving the following:—

(1) Self-defence villages along the Thai-Laotian border.

— Establishment of 48 villages in the upper Northeastern border by 1984.

(2) Self-defence villages along the Thai-Kampuchean border.

— Establishment of 55 villages in the lower Northeastern border by 1983.

(3) Accelerate the construction of five security roads along the border involving a budget of 321.78 million baht.

1.3.3 Operation guidelines along the Northern border.

Although there are mountain ranges and forests which act as natural barriers to outside attacks, the region is still vulnerable, especially from external infiltration with support from internal insurgent groups. The people in these remote rural areas are mostly poor and inadequately served by government services. Development efforts must aim at distributing more services and benefits to these people to raise their capabilities and to support the strategic plan. The defence and development of this area will involve the establishment of 55 self-defence villages along the Thai-Laotian border.

2. Rural development plan for security.

2.1 Facts.

Rural development during the Fourth Plan utilized an interdisciplinary approach by concentrating on the areas with insurgency problems. Economic and social means were used

in support of military operations for permanent security maintenance. The approach was to co-ordinate development plans with the strategic plan, with the military being responsible for security maintenance so that government development agencies could carry out their tasks. Once general security was ensured, civilian government agencies would then continue with their work.

It is evident that the development strategy aimed primarily toward influencing politically and psychologically, the people under the insurgents' domination. Although past achievements have been satisfactory, the present economic and social problems and external threats have aggravated the problem of security.

2.2 Problems.

(1) During the Fifth Plan period, security problems, especially from external threats, are expected to become more serious, whereas the internal threats from insurgents will continue to be of utmost importance. Throughout the country there are 209 districts in 45 provinces with a population of 11 million which are under threats from insurgents.

(2) An equitable income distribution which will alleviate security problems has not as yet been achieved. For example, the Central region has a per capita income three times higher than the Northeastern region; and the rate of income growth of the former is nine per cent per annum compared with four per cent for the latter. The development of the rural poor areas is a necessary condition if security problems are to be contained.

Table 3.1
Per capita income regionally classified

Unit : Baht

Year	Country	North	Northeast	South	Central
1975	7,077	5,106	3,198	6,560	10,062
1976	7,732	5,393	3,369	7,503	11,368
1977	8,412	5,564	3,499	8,608	12,414

Source : National Accounts Division, NESDB.

(3) Development strategy during the Fourth Plan was designed to counter only the serious threats in specific areas. The problem remains that the areas with mild or increasing security problems are not being adequately addressed.

2.3 Policies.

(1) To pay prime attention to the economic strategic development areas employing the security development strategy which will win back the people now under the domination of the insurgents.

(2) To establish Volunteer Self-Defence and Development villages by encouraging the people to become self-reliant economically and defensively.

2.4 Guidelines for the security sensitive area development.

2.4.1 Area classification.

To classify two types of security sensitive areas according to the seriousness of the problems.

(1) **Strategic development area** which has serious security problems and can only be solved initial by military operations but which will be followed by other development measures.

(2) **Defensive area** which is not seriously affected by security problems, but which is showing signs of future difficulties.

2.4.2 Operation in strategic development area.

(1) Develop the backward rural areas which are under communist domination and are served inadequately by government services.

(2) Develop the areas which are the strategic strongholds of the insurgents. It will be necessary to set up new communities in the form of strategic villages.

2.4.3 Operation in defensive area.

(1) To designate target Volunteer Self-Defence and Development Villages with the co-operation from the Joint Operations Centre, Supreme Command, the Army Tactical Operations Centre, International Security Operations Command and the Army Regions. These units will jointly specify the target villages which hold strategic importance and must be given top priority. All concerned agencies must solve security problems in these villages to support the strategic development areas and the ordinary development plans.

(2) Widely distribute economic and social services to the target areas with the people's participation. Security concerns must be also jointly considered with ordinary economic and social development projects.

(3) Allocate projects in the target areas according to the rural development operation plan through agencies of the Volunteer Self-Defence and Development Villages.

2.5 Targets of security sensitive area development.

(1) To reduce the seriousness of the problems in strategic development areas by taking firm control of the areas so that regular development agencies can proceed with their development activities.

(2) To solve security problems and at the same time reduce the influence of the insurgents. The Volunteer Self-Defence and Development Villages will be the development pattern to support the defence system.

2.6 Plans of security sensitive area development

In the development of security sensitive areas two plans have been worked out as follows:—

2.6.1 Security sensitive area development plan.

The plan aims at solving security problems in the strategic development areas. Security development projects will be launched in each region with regard to insurgent movements. Government suppression and development units must co-operate in their efforts to achieve permanent security so that people's confidence and loyalty can be regained. The

government will use all the necessary economic, social, political and psychological means to ensure safety and security. Once this is attained the government can concentrate on strengthening the Volunteer Self-Defence and Development Villages.

a Guidelines for the development of security sensitive areas.

(1) Public safety maintenance system.

To ensure public safety for smooth government operation and people's livelihood, psychological and political offensives will be initiated, and at the same time the people must be confident of government development efforts. Self-Defence training sessions will be regularly organized for the people.

(2) Economic and social development.

Economic and social means will be employed in support of military operations. Development measures will emphasize the similar solution of problems that have been used by the insurgents in their propaganda against the government. Relevant problems include unclear land ownership, a lack of inter-village roads, inadequate health services, and undernourishment.

Government development programmes will include the provision agricultural land, the setting up of forest villages, the planned construction of roads, a productivity increase plan, people's occupational development plan, improved public health services, and the registration of villages for future development.

(3) To organize and develop local communities so that the people will join the government in solving security problems in a prompt and efficient manner.

b Operational targets of security sensitive area development.

In order to take firm control of security sensitive areas, and to reinforce security for the people in strategic development area to become self-reliant economically and defensively, the Fifth Plan has set the following targets:—

(1) There are nine projects of security development operations in the area under the control of the Second, Third and Fourth Army Regions, These were initiated during the Fourth Plan period and are listed below:—

— Security development project in Lahan Sai district, Buri Ram province. (operation period: fiscal years 1980-1983)

— Land consolidation project in the form of forest villages in Ban Phu Hang, Nong Kung Si district, Kalasin province. (operation period: fiscal years 1980-1982)

— Security development project in Huai Bang Sai, Nakhon Phanom, Sakon Nakhon and Kalasin provinces. (operation period: fiscal years 1978-1982)

— Security development project in Huai Pra Duk, Na Duang sub-district, Muang and Pak Chom district, Loei province. (operation period: fiscal years 1980-1982)

— Security development project along the highway number 1090: Mae Sot-Umphang route, Tak province. (operation period: fiscal years 1980-1983)

— Security development project in Huai Mae Dee Noi, Ban Rai district, Uthai Thani province. (operation period: fiscal years 1980-1983)

— Security development project in Ngao-Ngao river basin, Chiang Khong district, Thoeng district, Chiang Rai province. (operation period: fiscal years 1980-1983)

— Security development project in Mae Hong Son district (specific areas). (operation period: fiscal years 1981-1983)

— Security development project in Phrasaeng district, Surat Thani Province. (operation period: fiscal years 1979-1983)

(2) To develop the security sensitive areas under the control of the four Army Regions by initiating projects in accordance with the new strategic plan of each Army Regions.

c Budget.

The security sensitive area development will require a total budget of 1,100 million baht during 1982-1986.

2.6.2 Volunteer Self-Defence and Development Villages Plan.

The plan will be launched in defensive areas to reinforce security around the areas or around those villages which have had security development projects already applied. The plan will also cover the border area which is the passing point of the insurgents' troops. The people in the villages will be taught rural development techniques, safety measures, and village administration.

a Guidelines for the development of Volunteer Self-Defence and Development Villages for national security.

(1) Rural safety maintenance.

Train rural people to safeguard their villages. Armed village units will be set up in accordance with the pattern of forces at the higher administrative levels.

(2) Services development.

To offer occupational development courses and social services to rural villages, including the incorporation of rural development activities and social services in the villages.

(3) Village administration improvement.

To train village committee members to understand village administration as set out in the 1979 Royal Decree on Volunteer Self-Defence and Development Villages, and to supervise, their work so that maximum efficiency may be achieved. (These villages are a basic democratic model.)

b Targets of the operation of Volunteer Self-Defence and Development Villages.

To set up 4,000 such villages in the defensive area: 630 villages in the Central region; 1,240 villages in the Northeastern region; 1,010 villages in the Northern region; and 1,120 villages in the Southern region. The target is to set up approximately 800 villages annually to raise their standards of living, their self-reliance capabilities, and the overall national defence effort.

c Budget.

The development of the 4,000 villages will require a budget of 970 million baht during 1982-1986.

3. Special security sensitive area development plan.

The areas are characterized by additional security problems with cultural and international implications. They are the Southern region, and the minority groups in the North and

on the Western border. Operations in such areas have to consider relations with the neighbouring countries. The areas, which must be specially treated, can be divided in the following ways:—

3.1 Five Southern Border provinces.

3.1.1 Facts.

The area covers Songkhla, Yala, Pattani, Satun, and Narathiwat provinces. The nature of security problems here is different from elsewhere in that the terrorist groups use the social and cultural differences, including the languages, as their tools in inciting rebellions. Political and social motivations are major factors responsible for security problems.

Nevertheless, the seriousness of the problems varies in different areas. There are common as well as specific problems among the five provinces. Consequently, the operations must be divided to deal with two categories of problem:

- (1) Overall security problems; and
- (2) Security problems in specific areas.

3.1.2 Policies.

(1) Overall policy.

To create proper understanding and harmonious relationship between the government and the people, using primarily political and psychological means in solving the problems.

Economic and social activities which contribute to the solution of problems will be employed. The necessary psychological effects leading to national security and stability must be attained.

(2) Specific policy.

To concentrate operations on the sensitive and very poor areas. Security development measures will be employed to bring about economic and social benefits and national security.

3.1.3 Guidelines for the operation.

(1) Overall development.

To improve public relations and to produce positive psychological impacts on the people making use of the mass media which must be efficiently run as in neighbouring countries. The media will also be used in economic and social development programmes.

To accelerate the work on Self-Help Land Settlement in the South by improving the operation guidelines and project management. There must be more co-ordination among agencies to achieve the security targets and economic and social development.

To accelerate the construction of national highways and rural roads which will serve all areas at all times.

(2) Specific development.

To accelerate the construction of four security roads along the border, requiring a budget of 257.24 million baht.

To organize and unify border villages with security problems by giving them economic and social support.

It should be noted that the economic and social development of the Southern border provinces under the overall plan is already included in the Chapter on Specific Areas and Urban Development.

3.2 The Northern upland area and the Western border.

3.2.1 Facts.

The backward upland border areas are mainly inhabited by minority groups, particularly the hilltribes people along the Western border. They are the target of domination and infiltration by various terrorist groups who conveniently blame the government for all the economic and social problems. Some of the hilltribes people have been persuaded to join the insurgents groups in undermining the country. The hilltribesmen know the area well and are physically strong and hard to defeat. They are well connected with their kinsmen in the neighbouring socialist countries who further influence them ideologically. Furthermore, the converted minority groups along the Western border have been persuaded to co-operate with the Communist Party of Thailand in their insurgent activities in the North. If the situation is not improved, the national security will be seriously threatened.

3.2.2 Policies.

(1) Develop the security sensitive areas economically and socially. The minority groups must be assisted to become self-reliant and to support the maintenance of national security.

(2) Organize minority villages with security problems into permanent strategic villages.

3.2.3 Guidelines.

Regroup the villages which are scattered about in an area which accords well with the strategic plan, and which can benefit fully from Government development efforts. The villages can then be reestablished as permanent strategic villages.

CHAPTER 4

IMPROVEMENT OF THE DEVELOPMENT ADMINISTRATION

1. Problems.

The operation of security development in the past has been largely characterized by some weaknesses in the planning administration and implementation which can be summarized in the following way:-

1.1 Budgeted funds for security development has been too limited and imprecise.

1.2 Budgeted funds for economic and social development has not seriously considered the complementary effects on security development.

1.3 There is a serious lack of co-ordination among different government agencies, many of which perform the same type of work. For example, for occupation promotion work in agriculture there are 14 agencies involved; for farmer organization there are 16 agencies involved; and for basic infrastructure projects 31 agencies are involved. The organizational frame work has resulted in duplication of work, delays and waste of resources. Efforts to solve these problems have already been initiated but are still too limited.

1.4 The decision making power has been too centralized. Local authorities should have been delegated more authority.

1.5 The private sector has not been sufficiently mobilized to participate in the development process. Private businesses tend to be self-fulfilling and although they may contribute to national economic growth, they do not directly participate in local area development.

The improvement of government administration and the development of government agencies are indispensable conditions for the successful implementation of the Fifth Plan in its efforts to further develop the economy and the society and to maintain national security in the most efficient and economical manner.

2. Guidelines for the improvement of public development administration and its organizations.

2.1 Ensure more consistent co-ordination between manpower and financial planning by establishing a high level economic and national security policy committee which will be responsible for the work of the National Economic and Social Development Board (NESDB), the Budget Bureau, the National Security Council, the Supreme Command, and the Civil Service Commission.

2.2 NESDB will appoint an economic and security co-ordinating sub-committee with representatives from the Central Administration.

The sub-committee will be responsible for:—

- (1) National defence planning;
- (2) Laying down guidelines for an efficient and economical defence budget allocations;
- (3) The development of strategically important economic resources to be available for immediate mobilization;

(4) Specifying the security sensitive development area to be compatible with the strategic plan; and

(5) Devising development strategy and screening economic and social development projects with respect to the priority and urgency of problems.

2.3 Set up a permanent co-ordination centre which will follow up economic and security co-ordinating work. Experts both from military and non-military organizations will be requested to scrutinize and follow up those economic and social development projects which will genuinely support the stability and national security. Once this co-ordination centre is well established and can function efficiently the setting up of regional co-ordination centres will follow.

2.4 Work out a clear government organizational chart showing the relationship with precise responsibilities assigned to the central and the provincial organizations. Encourage the decentralization of authority to increase efficiency.

2.5 Change the budgeting system of security agencies from line-item budgeting to programme oriented budgeting.

2.6 Rearrange and improve the working system of NESDB, Bureau of the Budget, and other security agencies so that they can all work together systematically and efficiently in the allocation of budgeted resources for economic development and national security.

2.7 Agencies such as mobile development units, National Security Command Headquarters, and the Office of Accelerated Rural Development will be instructed to mobilize all resources such as tools, machines and finance for security development areas. One single central organization in the form of a committee in the implemented area which will co-ordinate the administration of manpower and the functioning of other government agencies will be organized. Co-ordination is extremely necessary as a weak link somewhere can signal a failure in the entire system.

2.8 National defence activities, security development, rural poverty development and the bridging of economic disparities will be the main responsibilities of the government. The development of industries, marketing and agriculture which can be carried out by private efforts will be left as much as possible to their own initiatives. The government will regulate development so that it is compatible with the National Plan, particularly the policy to encourage the private sector to solve poverty problems at the local level.

2.9 To bring about permanent national stability and to create a unified ideology which will lead to close co-operation and understanding between the government and the people. The government will emphasize public relations work and will widely publicize its work plans and results of its development efforts in bringing about economic prosperity and national security. National and regional public relations organizations will be improved for better compilation and evaluation of public opinion and suggestions to serve the principle of correct understanding and co-operation from all sides. Follow-up and evaluation units will also be strengthened.

PART VIII

**REFORM OF DEVELOPMENT
ADMINISTRATION SYSTEM AND
DISTRIBUTION OF OWNERSHIP PATTERN**

CHAPTER 1

SUMMARY OF MAJOR ISSUES ON DEVELOPMENT MANAGEMENT

1. During the past two decades, i.e., since 1961, a more systematic approach had been advanced by the government on economic management and national development under the framework of the four National Economic and Social Development Plans. These Plans established overall national objectives, economic policies and the direction of investments in the expansion of various public infrastructural services. During the First and Second Plans periods, public development and investment programmes were comparatively modest. The keynote of these public development programmes was limited to the improvement and expansion of economic and social infrastructural services which were concerned primarily for the acceleration of output in agriculture, industry and services. With favourable external and domestic economic and political conditions during these two plan periods, the Government was able to achieve satisfactory results in national development. It was recognized among international economic and financial circles that, compared with other developing countries, Thailand had been able to achieve a high rate of economic growth.

2. In the succeeding periods of the Third Plan (1972-1976) and the Fourth Plan (1977-1981), the management of public development faced several difficulties attributable to changes and uncertainties in external and domestic economic and political situations, particularly political changes in Indochina, international monetary crisis coupled with the increase in oil prices, and world wide stagflation. The latter half of the Third Plan and the Fourth Plan period can be considered as a critical period in the process of planning and national economic management. The country faced frequent changes in political leadership and many economic problems emerged. The international monetary crisis and rising oil prices had brought about the problems of high cost of living, inflation and increasing deficits in the balance of trade and payments. Simultaneously, the country faced also a growing need to narrow the income gap among various groups of the population and between the urban and rural areas.

Economic management during the aforementioned periods was oriented very much towards the solution of immediate problems with inadequate attention given to the necessity for readjusting the economic and social structure in order to solve long-term problems. In particular, despite the setting out of policies in part Plans for improving the economic management machinery as a precondition for national development, there was no actual of reform of the system for development management in the public sector (both at the central and local levels) to keep pace with changing conditions. The economic management system was not adjusted to cope with the rapid changes in international economic, financial and political situation.

3. In the light of the substantial changes and increasing complexity in the economic and social structure of the country, there is now an urgent need to improve and reform the public development management system. Moreover, in an economy where the private sector plays a very crucial role in various economic activities, efforts should be made to mobilize this sector to participate in the management of national economic and social development.

4. An assessment of the government's performance and control of its domestic affairs

and the structure of development management has revealed several shortcomings and issues which can be summarized, as follows:—

4.1 Central government. At the central level, there has been no improvement or reform of development management in accordance with the rapidly changing economic and social structure of the country. Evidence of this is the lack of a system to coordinate and translate various economic and social development policies into actual implementation and the lack of a national monitoring and evaluation system to provide a feedback on actual performance.

4.2 Local government. Development management at the local level is still fragmented and inefficient. There are many forms of local development organizations, thus creating not only confusion but duplication of efforts as well. Moreover, the structure of local government remains highly centralized with the central government continuing exercise control directly or indirectly over the formulation, financing and implementation of development programmes and projects. In brief, it can be concluded that in the process of past national development, there have been no systematic and continuous efforts given to decentralizing development management authority to the local level.

4.3 Private sector participation. There has been no study and research undertaken to identify the extent to which the private sector can be mobilized to cooperate and participate with the government in national development efforts.

4.4 External resources mobilization. There are still certain problems on effectively mobilizing external resources such as the lack of an appropriate system for the identification, approval and development of externally financed projects, and the lack of a central agency to oversee the proper control and utilization of external resources.

In addition, reform of general public administration is also essential for development management. At present, the bureaucracy is still characterized by red tape and inefficient utilization of financial resources, thus limiting the government's ability to adequately finance development programmes and projects.

CHAPTER 2

REFORM OF PUBLIC DEVELOPMENT MANAGEMENT AT THE CENTRAL LEVEL

1. Background

The problems which impede the translation of development plans into actual implementation at the central level can be stated as follows:—

1.1 Lack of a central body to coordinate national economic policy. National economic policies are formulated or proposed from two main sources. **Firstly**, from the top down in which national economic policies are formulated by the Government. **Secondly**, from the bottom up in which national economic policies are formulated and proposed by officers of policy agencies such as the National Economic and Social Development Board, the Bureau of the Budget, the Civil Service Commission, the Office of Fiscal Policy of the Ministry of Finance and various ministries and public enterprises involved in economic affairs.

In the past, the formulation and proposal of economic policies have been made on a piecemeal basis without a central body to coordinate these policies in accordance with the national plans. Hence, many Plan policies have not been translated into real action. Moreover, in the past there has been a lack of monitoring and evaluation of economic development policies to identify bottlenecks and shortcomings during the process of implementation. Thus, the need for a central body to translate policies into actual implementation is required.

1.2 Inconsistency among the systems of planning, budgeting and manpower allocation. The National Economic and Social Development Board, the Bureau of the Budget and the Civil Service Commission have their own statutory authority and operate independently from each other, making it difficult for the integration of planning, budgeting and personnel allocation. In addition, the budgetary and financial processes still serve principally as regulatory mechanisms. The budget is prepared on an annual basis only and classified by line-items of expenditure rather than by programmes in line with national plan objectives and strategies. At present, the Civil Service Commission has already undertaken a crucial step in setting up ceilings for posts to be allocated to various government agencies during a certain period of time. However, the extent to which the posts allocated can be filled depends very much on the budget allocation by the Bureau of the Budget. Hence, in the past various programmes and projects had often not been allocated financial resources and manpower which are consistent with one another. This impedes, to a considerable extent, the translation of development plans into actual implementation.

1.3 Lack of planning system at ministerial level. At present the role of various ministries in planning and budgeting is still very limited. Various ministers and ministerial under-secretaries have not yet taken an active part in setting up priorities of development programmes and projects as well as allocating the budget of their ministries. Hence, the departments play the major roles in the decision-making process. In order to rectify this shortcoming, the effectiveness of ministerial planning units must be improved so that they can take active parts in appraising and setting priorities of development projects of each ministry in accordance with the National Economic and Social Development Plans.

1.4 Lack of decentralization and delegation of power to field officers. Since development programmes and projects are at present determined by the central government, field officers who are responsible for the implementation at the provincial and local levels have a minor part in the whole development management process. This hinders the effectiveness of project implementation and calls for a need for decentralization.

2. Strategies for the Reform of Development Management at the Central Level.

In order to translate the Plan into actual implementation there is a need for the reorganization of development management at the national level as follows:—

2.1 Establishment of a central body to coordinate national economic policies. A central body will be set up to coordinate the work of the Office of the National Economic and Social Development Board, the Bureau of the Budget, the Civil Service Commission and various economic ministries. A monitoring and evaluation system will also be developed as a tool to assist the government in making decisions on programme and project implementation on a timely basis.

2.2 Improvement of planning, budgeting and manpower allocation will be undertaken to ensure consistency as follows:—

(1) Close cooperation between the Budget Bureau and the Office of the National Economic and Social Development Board will be undertaken on converting line-item budget system to a programme budget system which classifies development programmes according to Plan objectives and strategies.

(2) The Office of National Economic and Social Development Board will prepare a short-term investment plan to serve as a guideline for annual budget and manpower allocation. The Office will also undertake further improvements in its planning, monitoring and evaluation systems.

(3) Planning at the ministerial level will be encouraged and promoted by strengthening the role of ministries in planning, budgeting and in conducting systematic monitoring and evaluation of development programmes and projects. Concurrently, ministerial planning units will be strengthened.

2.3 Decentralization of authority by ministries to field officers. Decentralization of authority to field officers will be undertaken to encourage more participation by them in the preparation and implementation of development projects. Officers at provincial and district levels will also be assigned with the responsibilities to provide more technical assistance to those at the local level.

3. Steps Undertaken on Development Management Reform

In recognition of the above mentioned problems, the following steps have already been taken by the government on the reform of development management.

3.1 Setting up of a central body to coordinate national economic policies. Presently, the Government has set up an Economic Policy Steering Committee consisting of the Prime Minister as the Chairman, various economic ministers as committee members and the Secretary-General of the National Economic and Social Development Board as the committee member and secretary. This high powered Committee is responsible for the coordination of national economic policies and supervision of the implementation of various economic policies.

3.2 Improvement of public personnel management. The cabinet has approved in principle the reduction in the rate of increase of government officials working in non-development fields, particularly in government agencies located in Bangkok. The following two guidelines have also been established:—

Firstly : Restriction is to be applied to all government agencies on the increase of personnel with the exception of special cases. Emphasis on personnel management in each government agency will be placed on upgrading and improving the quality of existing personnel.

Secondly : For non-development agencies, the increase of government officials and employees cannot be more than two per cent annually.

3.3 Approval of development projects prior to the submission for the cabinet consideration. In the past some of the ministries bypassed the Office of the National Economic and Social Development Board in submitting development projects for the cabinet's consideration. Hence, many development programmes and projects approved by the cabinet were not consistent with national development policies and strategies. In 1981, the cabinet passed a resolution requiring various ministries to present all development programmes and projects to the Office of the National Economic and Social Development Board for appraisal to submission for approval by the cabinet.

3.4 Improvement of budgetary system. Since 1980, the Budget Bureau has taken to followig steps to improve the budget system:—

(1) Modification of budget preparation. Budget preparation has been changed from a bottom-up to a top-down process in which budget guidelines, developed jointly by the National Economic and Social Development Board and the Bureau of the Budget, are submitted to cabinet for formulation of an annual budget policy. The policy by the cabinet then translated into ministerial ceiling. After the ministerial ceilings ahve been set and approved by the cabinet, various ministries will arrange priorities and allocate the budget to each department in accordance with the objectives and strategies of Fifth National Economic and Social Development Plan.

(2) Preparation of a three-year public investment programme. Steps have already been taken for the preparation of a three-year rolling investment programme showing various basic additional information such as project location, project objective, total investment cost and sources of financing, including foreign loans, foreign grants and baht counterpart funds. The three-year rolling investment programme will serve as one of the guidelines for preparing the annual budget.

(3) Relaxation of budget controls. Budget controls have been relaxed with mcre delegation of responsibilities to various agencies both in terms of the approval of the quarterly allotments and the transfer of funds among expenditure categories.

(4) Adoption of programme budgeting system. Steps have already been taken to replace the line-item budget system with a programme budget system. The preparation of the new budgeting system is divided into two phases. The first phase will involve the arrangement of programmes in the agriculture and education sectors to be applied in fiscal 1983. Programming for other sectors will be prepared and introduced into the 1984 budget preparation process.

3.5 Decentralization of power. In the past the Government has undertaken the decentralization of power through various forms such as the tambon development plans, provincial development plans and rural jobs creation programme etc. During fiscal 1981 and 1982 the

government has set aside 4 billion baht and 3.5 billion baht respectively for rural development. Moreover, in fiscal 1981 there was an announcement by the Office of the Prime Minister delegating procurement authority to the provincial governors. According to this announcement, provincial governors are empowered to authorize funds up to 4 million baht. This decentralization of power has resulted in transferring the purchasing of many items from Bangkok to the provinces.

3.6 Data improvement. Steps have already been taken by the Comptroller General's Department of the Finance Ministry to produce timely expenditure status report which will be useful to the Office of the National Economic and Social Development Board, the Budget Bureau and other government agencies. This project is expected to be completed by the end of 1981 and to be succeeded by a project on revising the budgeting accounting system to be compatible with the programme budgeting system.

4. Further Steps to be Taken

Further steps to be taken on the improvement of development management are as follows:—

4.1 Preparation of a medium term plan and development programmes. In order to link up annual budgeting with the Fifth Plan, there is a need for the preparation of a three-year rolling investment plan to identify new programmes and projects to be implemented during the Plan period. Since the Fifth Plan will only prescribe the broad policy framework related programmes and measures without going into detail for each sector the preparation of a three-year rolling investment plan will facilitate the integration of detailed planning at the sectoral level with the programme budget system.

4.2 Improvement of project preparation and project proposal system. Project preparation and project proposal system will be improved in line with related improvements in medium term plan and budgeting. According to the new system, the Office of National Economic and Social Development Board and various ministerial planning units will work together on the identification and preparation of projects which will meet the targets and the objectives of the Fifth Plan.

4.3 Improvement of monitoring and evaluation system. The monitoring and evaluation system will be improved to become a centre to conduct periodic reviews of development efforts and identify bottlenecks and problems for consideration by the Economic Policy Steering Committee. This improvement of monitoring and evaluation system is, to be consistent with project planning, budgeting, and accounting.

CHAPTER 3

REFORM OF DEVELOPMENT MANAGEMENT OF URBAN GROWTH CENTRES AND SPECIFIC AREAS

1. Objectives

There are three major objectives, as follows:—

1.1 To ensure effective coordination of policies, programmes, projects, and related budget allocation for the development of growth centres and specific areas in order to achieve the objectives, targets and strategies of the Fifth Plan.

1.2 To bring about a unity of command in development management with proper designation of duties and responsibilities assigned to each operating agency.

1.3 To ensure the effective implementation of development programme.

2. Policies and Measures

In order to achieve the above mentioned objectives, organizational arrangements and development guidelines have been prescribed as follows:—

2.1 National organizations. A Committee on Urban and Specific Areas Development will be set up to formulate policies on urban and specific areas development, provincial and local administration, coordinated development programmes, projects and their implementation, as well as allocate special development funds to the agencies concerned, to local government (in the form of special subsidy), and to public enterprises for the development of urban and specific areas according to the Fifth Plan. In order that the work of this Committee can be undertaken effectively, it is deemed necessary that the following sub-committees should also be established:—

2.1.1 Sub-committee on the development of the Bangkok Metropolitan Area. This sub-committee will undertake studies and recommend policies, roles and responsibilities of the central administration: provincial administration; local administration; public enterprises and the private sector on the development of the Bangkok Metropolitan Area for consideration of the Committee on Urban and Specific Areas Development. The sub-committee will also coordinate policies, programmes and the operation of various government agencies and public enterprises; undertake studies and analysis of development financial sources; improve tax collection; revise existing laws and regulations which pose obstacles to the development of the Bangkok Metropolitan Area; and recommend the permanent organizational structure for Bangkok Metropolitan Administration.

2.1.2 Sub-committee on urban and specific areas development. This sub-committee will undertake studies and recommend policies, programmes, projects, investment costs, and related sources of financing for the development of regional cities including regional urban centres, low-order centres and rural communities in accordance with the Fifth Plan and for the development of specific areas which include the Eastern Seaboard, the Western region, and others areas.

2.1.3 Other sub-committees to be designated

2.2 Regional organization. A work group on urban and specific areas development will be set up for each region. This working group will work jointly with various government agencies and public enterprises in planning and assigning priorities among development projects; estimating total investment requirements; and submitting these consideration and review to the Committee on urban and specific areas development.

2.3 Development strategies

2.3.1 Budget allocation. A special budget should be set in the central fund for the development of urban and specific areas, particularly the development of the regional urban centres. The Committee on Urban and Specific Areas development is to be authorized to allocate annually this special fund to development programmes and projects.

2.3.2 Implementation. The city of Bangkok, municipalities, government agencies, and public enterprises concerned will be responsible for the implementation of development programmes and projects as specified. In order to ensure effective development management there is a need to prescribe the following policy guidelines and measures for the improvement of municipalities which are considered important for the development of urban areas, particularly in the regional urban centres:—

(1) Priority is to be given to the setting up of planning units in the municipalities of regional urban centres. Lower priority is to be accorded to the setting up of planning units in the municipalities of low-order centres.

(2) The Municipality Act of B.E. 2496 and other related regulations are to be revised to ensure more independence on the part of various municipalities in development and financial administration.

(3) Budgetary procedures will be modified through the abolition of the stipulation that expenditures can be set at only 97 percent of total income.

(4) Efficiency in tax collection will be improved and tax revenue will be increased by:—

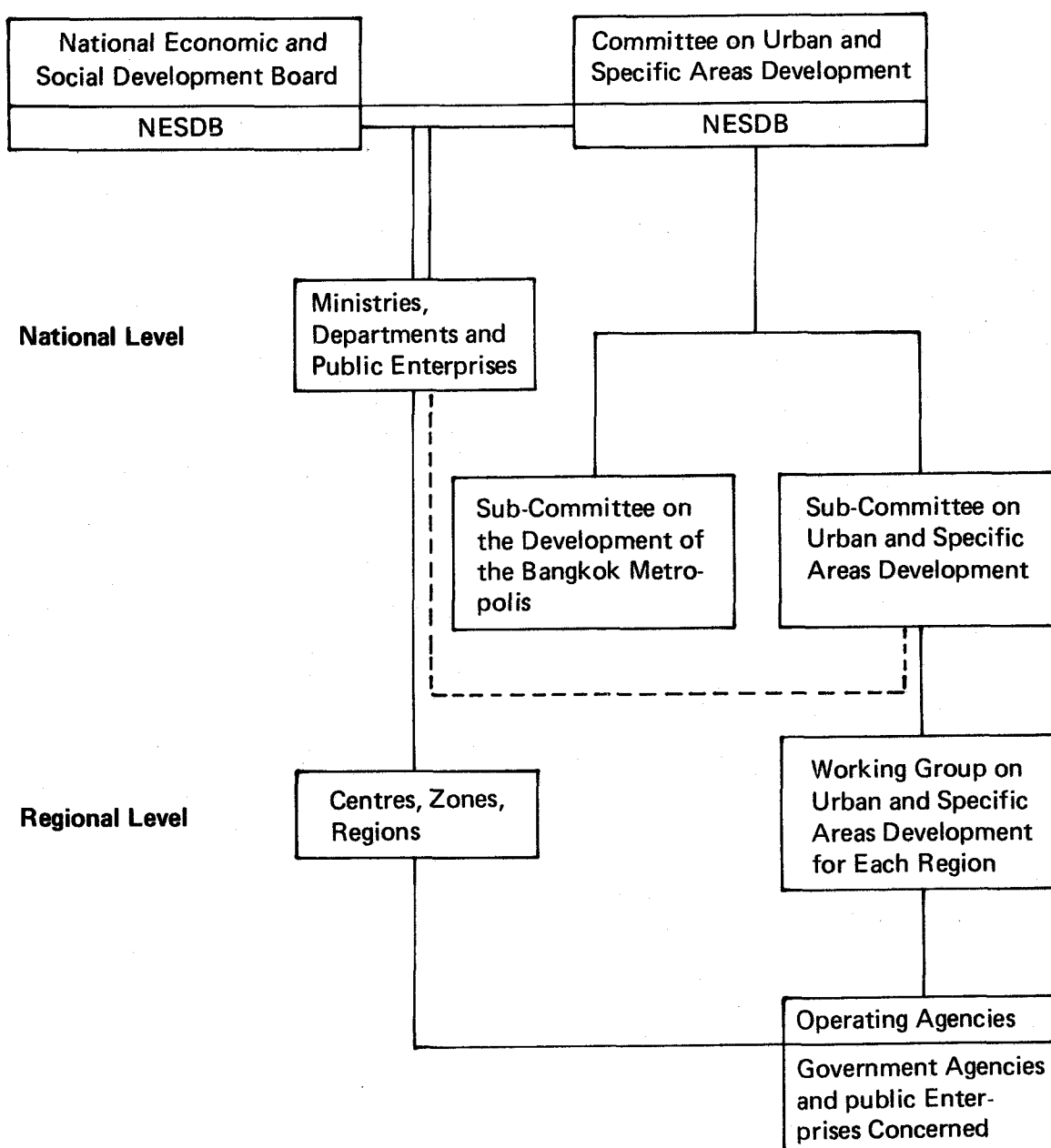
— Either converting land development tax, land tax and rent tax into the system of property tax or reducing the restrictions and increasing the rates for rent taxes and land development taxes and allowing municipalities to collect more special taxes.

— Improvement of public utilities rates in accordance with the changing situation.

— Improving efficiency in tax collections by introducing of tax maps; developing a tax accounting system; and imposing heavier punishments for tax evasion.

(5) The allocation of budgeted funds for local development purposes will be made to ensure that those development programmes and projects so funded are consistent with meeting local needs and the government's national development policies.

Chart 3.1
Development Management for Urban and Specific Areas
Organizational Chart



CHAPTER 4

REFORM OF PUBLIC MANAGEMENT FOR RURAL DEVELOPMENT

1. Background

1.1 Concept of the organization of rural development management

An effective rural development programme calls for improving the standards of living of the rural population and to creating a self-help capability. Thus, rural development involves various political, economic and social elements. It is generally accepted that political and management problems contribute as much to the failure of rural development as economic problems.

Despite more emphasis given by the Government on rural development during the Fourth Plan period, there has been no substantial change in the concept and approach to rural development. Rural development continues to be carried out primarily by government agencies located in Bangkok, thus heavily emphasizing the top down and hand-out approach. This is very much inconsistent with the principle of rural development which emphasizes the promotion of a self-help capability among the people by encouraging their participation through local organization under the democratic system of government.

To date, organizations of local government in Thailand are still controlled heavily by the central government with respect to budgeting, and financial matters and the process of decision making, with little delegation of authority to the local level. Moreover, budget allocations to the rural areas has not also been undertaken in accordance with spatial and target population needs. There is thus an urgent need for improving the structure of public administration to serve the requirements of new development management approach for rural development which accords development priority to the rural poor. The reform of development management for rural development calls for creating "units, efficiency and capability" among rural development agencies together with decentralizing power to local government and strengthening local organizations.

1.2 Organization of existing local rural development management

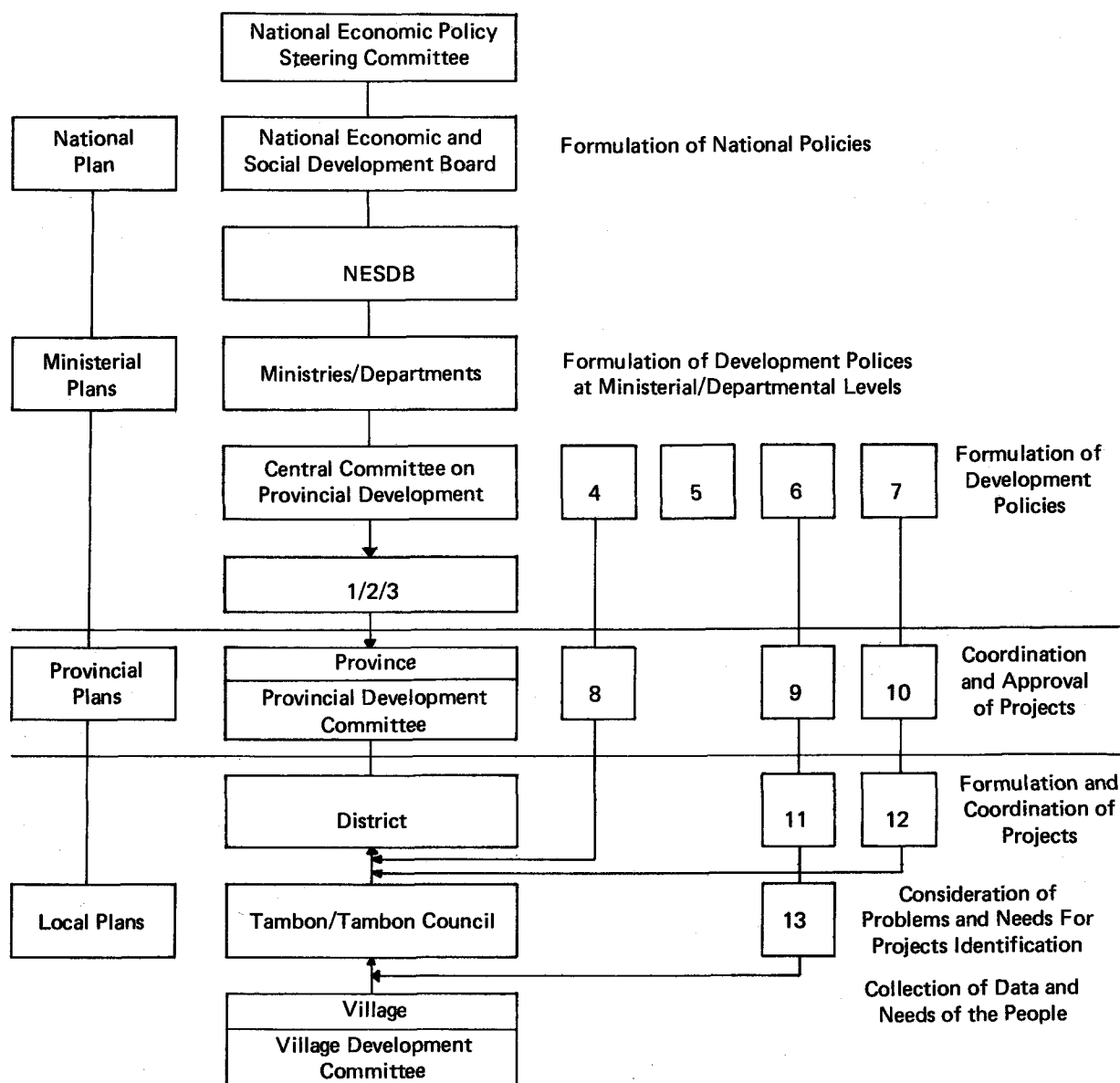
At present, there are various forms of committees involved in rural development at the national, provincial, district, tambon, and village levels. These committees are set up by government agencies without due consideration and recognition of standing organizations which exist by law. This has given rise to the proliferation and duplication of committees working on rural development as shown in Chart 4.1

Apart from all the levels of committees as indicated in the above mentioned Chart, there are also many other committees operating national, provincial, and tambon levels set up and appointed by laws, cabinet resolutions and by various ministries responsible for the rural development in various fields. Each of these committees tends to operate independently, i.e., without coordination with other relevant committees.

1.3 Problems on rural development management

Issues which need to be taken into consideration are as follows:—

Chart 4.1
Present Organizational Set Up for Rural Development



- 1/ Sub-committee on the Acceleration of Provincial Plans
- 2/ Sub-committee on the Coordination of Provincial Plans
- 3/ Sub-committee on Regional Monitoring and Evaluation
- 4/ Committee on Rural Jobs Creation
- 5/ Accelerated Rural Development Central Committee
- 6/ Committee on National Rural Development
- 7/ Community Development Coordination Committee
- 8/ Provincial Jobs Creation Committee
- 9/ Provincial Rural Development Committee
- 10/ Provincial Community Development Coordination Committee
- 11/ District Rural Development Committee
- 12/ District Community Development Coordination Committee
- 13/ Tambon Rural Development Committee

1.3.1 The organization of rural development management at present is characterized by "the proliferation of forms and practices". There are duplications of efforts in the structure of power and responsibility which have given rise to the lack of coordination and unity in the management of rural development.

1.3.2 Under the law on the ministerial reorganization, the powers and responsibilities of each ministry are defined in broad terms without clear assignment of power and responsibilities to the operating units, i.e., those at the department level, without this specification, work has expanded independently. Moreover, various agencies normally use national level committees which are set up with the perceived objective to coordinate ministerial and departmental activities but actually serve as rubber stamps for the expansion of their work. In addition, whenever there are problems or new policies on rural development, it is the usual practice to set up new standing committees or provisional agencies rather than improving or further developing the existing management structure or resources. Examples to illustrate this statement by the establishment of the committee on rural development at the tambon level in duplication of the tambon council or the committee on job creation at the provincial level in duplication of the committee on provincial development.

1.3.3 The nature of provincial and local administration at present is very much tied to only the Ministry of Interior, with the provincial governor presumed to be the representative of all ministries, bureaus and department whereas the district officers, heads of tambons and heads of villages are officers responsible for the administration at the district, tambon and village levels, respectively. This structure of administrative organization has not been adequately accepted by other government agencies and has given rise to the creation of their own administrative organizations in the forms of zones, centres (offices both temporarily and permanently established in the areas), and in the form of committees at the various local levels. These organizations are delegated management authority directly from the ministries, bureaus and departments. Hence, there is no unity of command among government agencies in the provinces. This creates a lack of effective coordination and sets the stage for duplication of efforts by the several agencies involved.

1.3.4 The analysis of provincial development plan reveals several problems and bottlenecks which hinder their effective implementation, consisting of the following:—

(1) The government still lacks the political will to use the provincial development plan as the instrument for decentralization power and coordinating development activities at the central, provincial and local levels. Hence, there has been a lack of clear policy and support given on provincial development planning. This absence of a policy discourages various officers involved.

(2) From the point of view of other ministries, provincial development planning is directly under the responsibility of the Ministry of Interior. Hence, inadequate co-operation and coordination have been given by other government agencies. The preparation of development programmes and projects and the budget allocation by these government agencies are made without adequate consideration for realizing the objectives and policies embodied in the provincial plan. This has been a major for the failure of the provincial development planning efforts.

(3) The present budget system is not yet conducive to the provincial development planning efforts which requires the coordination of spatial development activities. The present budget system, without any system of priorities, also creates conflict among government agencies in competing for limited financial resources. This does not contribute to effective rural development.

(4) The present provincial planning units are not in a position to act effectively as a technical body and incoordinating programmes and projects planning.

(5) Necessary data and information are still lacking for planning purposes at the provincial level. Needed data and information are usually scattered among various government agencies, despite the compilation of data and information by many agencies such as the Department of Local Administration, Office of Policy and Planning of the Ministry of Interior, the Office of National Economic and Social Development Board, National Statistical Office. These agencies are operating independently.

(6) There is a lack of an effective monitoring and evaluation system.

(7) The people's participation at the local level is still very limited.

2. Objectives and Policies

In order that the new approach of rural development can be successfully implemented, there is a need for reorganizing development management for rural development purposes to ensure unity of command and streamline various duplicated organizations which duplicate one another. At the same time, there is also a need for establishing a budget management system at the provincial level, particularly for the implementation of the rural development plan in poverty areas. Taking all these factors into consideration, the following policies are designed to improve rural development management:—

2.1 Create unity of command, at the policy level. There will be only one committee on rural development.

2.2 To ensure efficiency and flexibility, a system of budget management at the provincial level will be devised.

3. New Organizational Form of Rural Development Management

3.1 The Office of the Prime Minister has issued a regulation on rural development management B.E. 2524 dated 24 July, 1981. The features of this regulation are as follows:—

3.1.1 National level: At the national level there will be only one committee, namely the Committee on National Rural Development chaired by the Prime Minister, including the Secretary-General of the National Economic and Social Development Board as a committee member and secretary. Ministers and under secretaries of state of the four agencies involved in the work are also committee members. Other national level committees involved in rural development are to be dissolved with the exception of the Committee on Rural Job Creation.

3.1.2 Provincial level: The Committee on Provincial Development is to be the only standing committee. Sub-committees on rural development at the provincial level to implement the rural development plan will be designated later.

3.1.3 District level: The Committee on District Development is to be responsible for the conduct of planning at the district level in coordination with the Sub-committee on Rural Development at the district level.

3.1.4 Tambon and village levels: Tambon councils are to be the centre of rural development at the tambon level. A working group on the support of rural development at the tambon level. A working group on the support for rural development operations at the tambon level is to be set up, consisting of representatives from various government agencies, such as the tambon agricultural worker and the tambon community development worker. At

the village level, the existing committee on village development and the central village committee are to serve as core organizations on rural development.

3.2 The reorganization of rural development management according to the new regulation of the Office of the Prime Minister will create more unity of command in the management of rural development since there will be only one committee at the national level. Rural development management at the provincial and district levels will also be better synchronized as shown in Chart 4.2

4. Budget Management Provincial level

4.1 Flexible budget management is very important for the development of the poor rural areas. Nevertheless, there will be no announcement of a new regulation on budget management under the development plan for poor rural areas as in the case of the job creation programme. In order to help speed up the work, improvements of each step of operation will be made in line with the government's policy on the decentralization of power on budget management to the provincial level.

4.2 In undertaking budget management according to the above mentioned principle the following steps will be pursued.

(1) The Office of the National Economic and Social Development Board will inform each province of the detailed targets of each project embodied in the development plan for poor rural areas at least two months prior to the beginning of a new fiscal year.

(2) Each province will formulate an operational plan and coordinate project implementation within its own area.

(3) Development projects will be located in villages selected by each district where poverty is highly concentrated in accordance with the target guidelines laid down at the provincial level in 2 above.

(4) After the budget has been passed by the Parliament, the departments responsible for development projects will provide the provinces with the necessary information on the budget ceiling and the impact targets.

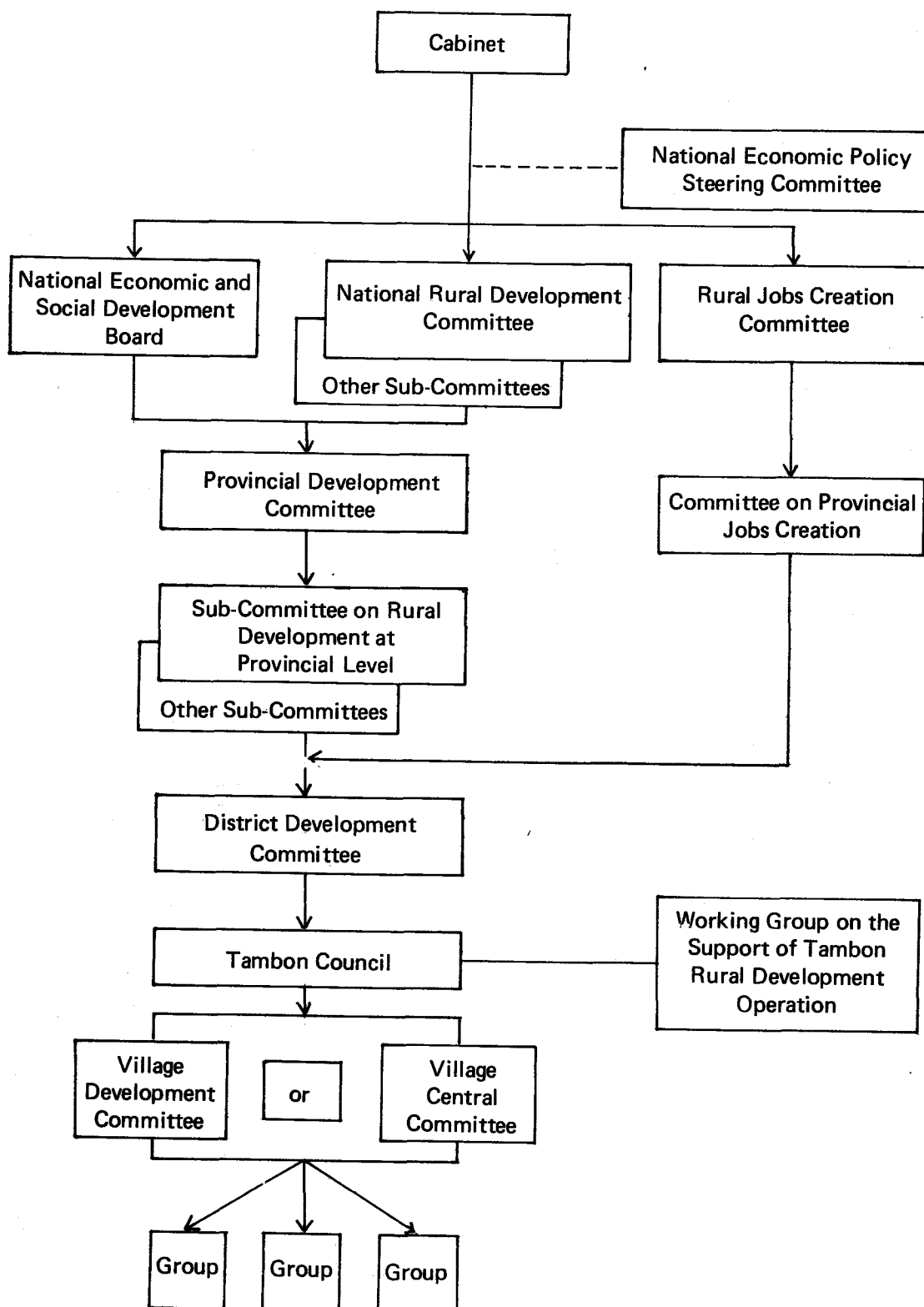
(5) Provinces and districts will undertake the adjustment of operation plans in line with the total budget ceiling allocated by the government so that work can commence at the beginning of the fiscal year.

(6) At the beginning of each fiscal year, the provinces and districts will inform operating agencies on the final operational plan classified by areas and will be responsible for budget management; the adjustment of the area for operational purposes; and the progress of project monitoring and evaluation according to the format designed by the Bureau of the Budget for effective management at the provincial level.

5. Long-Term Guidelines for the Reform of Rural Development Management and Organizations

5.1 In order to ensure the proper chain of command and bring about improved coordination on rural development management, it is considered appropriate to dissolve the Committee on Rural Job Creation, and have its responsibilities transferred to the Committee on Rural Development. In order to bring about more flexibility in the management and policy formulation, the Committee on Rural Development should be requested to set up a new Sub-Committee on Rural Job Creation. Also the status of the Committee on Provincial Job Creation should be changed into a Sub-Committee on Provincial Job Creation under the Committee on Provincial Development.

Chart 4.2
Organizational Structure of Rural Development Management



5.2 Related laws will be revised to allow for the establishment of the tambon council as an independent centre for the management of development activities at the tambon level in order to create an opportunity for the people to take part in the solution of problems to the extent possible. The structure of the tambon council will also be adjusted in such a manner so that it will become a people's organization for the rural development, ready to coordinate and cooperate with all government agencies. To accomplish this, a clear designation of development duties and responsibilities will be assigned to the tambon council with adequate autonomy to assure that it conduct its' own local development activities. The provinces and districts will only provide support and monitor work. Finally, the capability of the tambon council in carrying its work on a continuous basis will also be developed and strengthened.

5.3 The budget act will be revised to give full authority to provincial governors in preparing annual budget requests and manage the budget of their own provinces in order to ensure the integration of provincial development plans with the national budget.

5.4 The capability of the provincial office will be strengthened so that it can undertake active technical and planning work at the provincial level. In so doing, emphasis will be placed on three main aspects, as follows:—

- (1) Organizational structure of the provincial planning unit.
- (2) Manpower planning at the national, ministerial and provincial level.
- (3) Training of officers.

5.5 Support will be given by the Civil Service Commission, Office of the National Economic and Social Development Board and the National Institute of Development Administration on provincial planning work of the Provincial Planning Committee. Support will be given to the training of responsible officers at all levels as well as to the staffing of core agencies.

CHAPTER 5

EXTERNAL RESOURCES MOBILIZATION

1. Background

During the period of the Fourth Plan, the mobilization of external resources including foreign loans and grants faced several management problems, as follows:—

Firstly : The management of foreign loans in the past were undertaken through the inclusion of projects collected from various government agencies into an annual foreign loan programme without proper priority arrangement and clear direction. Hence, a substantial proportion of foreign loans were allocated to certain sectors which had better absorptive capacity in preparing projects such as transportation and communication sectors. A smaller proportion of foreign loans was allocated to agriculture and rural development.

Secondly : The approval of projects financed by foreign loans and grants and those financed by the national budget were not well coordinated often projects which had not received funding from the national budget sought foreign loans financing independently, thus making it difficult effectively control the utilization of available financial resources. Therefore, the budget and foreign loans programme should be integrated.

Thirdly : Many projects were financed from foreign loans but were not ready to be implemented according to the established targets. This has given rise to the low disbursement of loan fund; delays in the operation; and substantial payment of commitment fees which constitute an unnecessary economic loss and financial burden to the country.

2. Improvement of Foreign Resources Management

2.1 Organizational improvement. At present, there is a Committee on Foreign Debt Policy responsible for the formulation of policies, programmes and setting criteria on the commitment of foreign debts. However, this Committee is composed of high level officials and its scope of work does not extend activities on foreign grants and technical cooperation which should be integrated into the total foreign resources management system. Thus, it is deemed necessary to establish a Sub-Committee on External Resources Utilization within the Office of the National Economic and Social Development Board to coordinate and screen projects financed by foreign loans and grants and prepare the "three-year rolling foreign resources mobilization programme."

2.2 Methodology

(1) A medium term "three-year rolling foreign resources mobilization programme" will be formulated so that the arrangement of projects financed by foreign resources can be systematized and regularized according to priorities and objectives of the Plan, thus providing for the definite allocation of funds but with sufficient flexibility for further adjustment in the annual plan.

(2) To prevent economic losses due to the delay of project implementation, joint scheduling for all foreign loan projects will be undertaken among the Office of the National Economic and Social Development Board, the foreign sources of financing, and those government agencies concerned. The joint scheduling system to be prepared will identify the period in which projects have to be approved in advance and serve as a tool for monitoring and supervising foreign loans and grant projects to be implemented by various government agencies.

CHAPTER 6

MOBILIZATION OF PRIVATE SECTOR COOPERATION

1. Past Cooperation Between Government and the Private Sector

The attempt to increase the private sector's participation in national economic development was initiated in the Third Plan period (1972-1976), particularly in the development of financial institutions, industrial development and agro-business development. During this period the stock market of Thailand was established and managed by the private sector while the government exercised a supervisory role according to the law. In the development of agro-business, a higher proportion of loans made by commercial banks to the agricultural sector was set by the government.

Later on, the role of the private sector became increasingly recognized by the government and included in the public management machinery. Representation from the private sector was stipulated in various major acts on economic management such as the Farmers' Aid Fund Act and the Pricing and Anti-Profiteering Act. Moreover, many of the Committees appointed by law or by cabinet resolution also include many representatives of private business institutions such as the Committee on Industrial Products Standardization, the Committee on Food and Drugs Control, the Committee on Investment Promotion, and the Committee on Exports Development etc.

The role of private institutions increased rapidly during the Fourth Plan period, particularly in international economic cooperation and cooperation among ASEAN member countries. The three major private business institutions, i.e., the Thai Chamber of Commerce, the Thai Industries Association, and the Thai Banking Association have established a joint committee to coordinate their efforts with the foreign private sector and the government. During the past three or four years, the joint committee has taken an active part in proposing that the government set up a joint committee between the government and business institutions. Work of this joint committee is still oriented towards the solution of immediate problems and is disrupted periodically by the frequent changes in government. Hence, the achievement of work has not yet been pronounced.

2. Problems

2.1 Joint responsibility between the government and the private sector in national development is still not effective. On the part of the Government which enforces laws and regulations, there are problems of efficiency and difficulties with the system of administration which have made various laws and regulations obstacles to development. The private sector, on the other hand, is equipped with better management efficiency but is oriented toward profit maximization without social responsibility. To date, there has been no system of coordination to solve these basic problems of both the public and private sectors.

2.2 Despite the emphasis given in overall economic policy to encourage more private participation in economic development, there is no formulation of policies on specific matters. Joint programmes and projects between the public and private sectors which can be translated into actual implementation are not also available. Moreover, in implementing joint programmes and projects there is also a need for the improvement of legal duties and

responsibilities as well as the creation of appropriate machinery for better coordination among various government agencies. In addition, there is also a need for the private sector to increase the capability of its business institutions and serve as an outlet for assisting the burden imposed on the public sector.

2.3 There have been no studies and research on the extent to which the existing model of private institutions can be developed to assist the government in national development.

2.4 The dissemination of information to create a better understanding among the public on the importance of private and public sector cooperation is not yet sufficient.

3. Policies

3.1 The role of the private sector will be supported by the government on investments for increasing agricultural productivity; improving the industrial structure; mobilizing energy savings; producing energy substitutes; accelerating exports; and promoting tourism.

3.2 The government will accelerate the formulation of specific plans and joint projects between the public and private sectors to ensure better coordinated efforts.

3.3 The government will develop private business institutions as important organizations by delegating certain parts of its authority and responsibilities to private business institution, thus relieving the current burden imposed on the public sector for development.

3.4 The government will undertake appropriate revisions to laws relating to the establishment and operation of private business undertakings.

3.5 The government will set up a system for coordinating with the private sector through business institutions on a permanent and continuous basis.

4. Measures

4.1 A system to coordinate the activities of the public and private sectors will be set up in the form of a high level joint committee. This joint committee will be mainly responsible chiefly for consideration of policies on the promotion of the private sector's participation in major economic sectors as stipulated in the Fifth Plan. The committee will be responsible also for monitoring.

4.2 Joint projects between the public and private sectors will be prepared. Projects which are ready to be undertaken consist of those relating to the investments in the development of agriculture in irrigated areas, energy savings in the industrial sector, the promotion of marketing for export products, the promotion of marketing for tourism and the establishment of an institution for the quality control of exports of foodstuffs and vegetables.

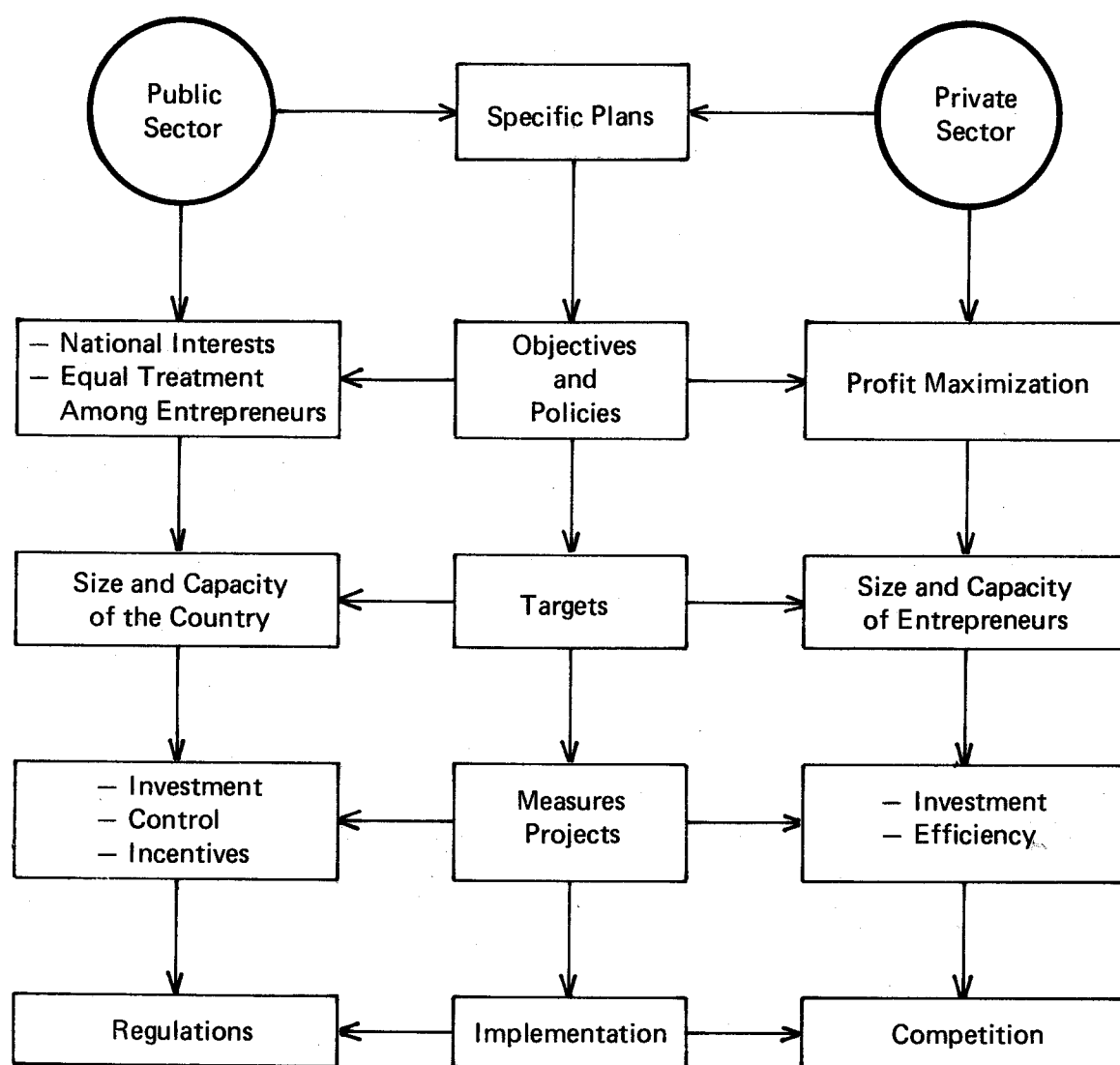
4.3 Specific plans will be formulated as joint plans of coordinated action between the public and private sectors. Joint planning which will be accelerated will include the formulation of the industrial restructuring plan, the plan on industrial investment in the Eastern Seaboard, and the export plan classified by kind of commodity.

4.4 Existing laws on the establishment and control of private business institutions will be revised. A draft new act will be prepared if needed.

4.5 Private business institutions will be encouraged to strengthen their management capabilities in order to be able to cope with their increasing responsibilities.

4.6 Information will be disseminated to create an understanding and awareness among the people on the role of the private sector in national development.

Chart 6.1
Differences Between the Action Plans
of Public and Private Sectors



CHAPTER 7

DISTRIBUTION OF OWNERSHIP PATTERN

1. Background

During the past two decades, national development under the development strategies of the previous Plans had brought about a rapid rate of growth in the Thai economy. This rapid rate of economic growth has contributed to the increasing role of financial institutions which include commercial banks and finance and securities companies in various fields of business investment. By the end of 1980, the total assets of commercial banks and finance and securities companies totalled 300,016 million baht and 65,145 million baht, respectively. Altogether, the total assets of these two types of financial institutions amounted to 365,161 million baht or 54 per cent of the Gross Domestic Products in 1980. However, the distribution of equity holdings in these financial institutions has been still very limited and there has been too much utilization of capital in various financial institutions for the benefits of stockholders or managers to the extent that has created a feeling of inequality among the public in general. The solution of this problem in the past has been made gradually through revisions to the Commercial Banking Act; the stipulation of criteria for the distribution of equity holdings by finance and securities companies; and the supervision and direction given to each commercial banks and finance and securities companies in solving the problem. These methods have not been effective in bringing about a satisfactory distribution of ownership pattern and reduction of monopolistic business practices. They are considered as remedial rather than preventive measures and take too long to produce the desired effects. Hence, if the situation were to be allowed to adjust itself according to the evolution of the banking system, there would not be enough time to cope with the general changes in economic, social and political conditions.

Since the Third Economic and Social Development Plan, the role of the private sector has been promoted to take part in national development. The Securities Exchange of Thailand (SET) was a product of this period with the private sector running the set under the supervision of the Government. However, at present the ownership of businesses in the form of shareholding is still limited in extent. Most businesses in Thailand are family affairs with a very small number of other shareholders. At the end of June 1981, there were only 75 listed and authorized companies (excluding the Unit Trust) registered with SET and the majority of these companies did not have many shareholders, i.e., approximately 70 per cent of them had less than 500 shareholders each, and about 85 per cent of them had less than 1,000 shareholders each. More than 90 per cent of these companies were small holders (one who owns no more than five in a thousand of the registered capital), who, altogether, did not hold as much as 40 per cent of the registered capital.

On land holding, the ownership of fertile land and arable land is still in the hands of a small number of people. Research undertaken on land ownership reveals that five per cent of the most extensive land owning group of persons in Thailand own 21 per cent of the land and 20.5 per cent of the land with registered title deeds. In addition, official statistics also indicate that the number of agricultural households with no land of their own and having to rent land for cultivation is on the rising trend throughout the country.

2. Problems

The above mentioned situation reveals basic structural problems on ownership pattern which can be described briefly as follows:—

2.1 Concentration of assets in financial institutions which creates social inequality.

Apart from the fact that financial institutions are holding most of the assets, at present the ownership pattern in the commercial banking system is highly concentrated among only five major banks, which are run by only very few families with their influence over other companies and financial organizations in the use of funds for the benefit of the shareholding group of the managing class.

2.2 Limitation of share distribution to the public at SET derives from many factors, especially the following:—

(1) The capital market has not yet been developed sufficiently. There has been no government agency to deal specifically with the supervision and development of the capital market.

(2) There are legal stipulations and other rules and regulations which hinder the mobilization of capital from the public through the extension of new shares. For example, there are rules which require various companies to sell newly-issued shares only to old shareholders with the exception of public companies. At present, all the listed and authorized companies registered with SET are not public companies according to the Public Company Act and are not thus entitled to issue new shares.

(3) The trading and transfer of shares at SET at present have to be in accordance with the Civil and Commercial Codes. This practice does not provide flexibility and this does not correspond to the actual situation in the securities exchange market where a lot of substantial shares are traded and transferred frequently.

(4) There is a double taxation in which companies not only have to pay juristic persons' income taxes but shareholders's dividends are again subjected to taxation as personal incomes. Although a tax credit system has been set up, a double taxation still exists.

(5) The qualifications of a listed company and an authorized company at SET are very similar, thereby discouraging companies to register their shares at SET.

(6) At present, there is only one "mutual fund" company which plays an important role in helping people to become smallholders. However, existing rules and regulations restrict its operation and create inflexibility.

2.3 Problem on land ownership

At present, the system of land tax is a regressive one. Large land owners pay taxes at a declining rate when land prices increase, causing social injustice and encouraging large ownership of land. During the past, the implementation of the land reform programme for the purpose of extending the ownership of land to the people was too slow and could not keep pace with the rising trend in land tenure and the lack of land for cultivation among farmers.

3. Objectives

In order to adjust the ownership pattern in accordance with the Fifth Plan's main development strategies on the creation of social justice and harmony, it is deemed appropriate to set up the objectives on the distribution of ownership pattern, as follows:—

3.1 Reduce the concentration of ownership in financial institutions and prevent the use of funds for the sole benefit of a group of persons or managers.

3.2 The Securities Exchange of Thailand will be supported to play a more active role in the distribution of ownership to the public by increasing the number of listed and authorized companies registered with SET; the number of shareholders in each of the listed and authorized companies; and the rate of spreading the shareholding of listed and authorized companies.

3.3 To reduce the concentration of land ownership and to take urgent steps for solving the problems of land ownership.

4. Policies and Measures

In order to achieve the above mentioned objectives, the Fifth Plan set fourth the following policy guidelines and measures for implementation, as follows:-

4.1 Distribution of asset holdings in financial institutions

(1) The scope of work and responsibilities of the Mutual Fund will be expanded further. Capital will be mobilized and made available for the Mutual Fund to buy shares from various financial institutions and industrial enterprises for further distribution to the public.

(2) The Mutual Fund will appoint representatives to participate in the management of enterprises of which equities are purchased in line with the Mutual Fund's policy as approved by the Ministry of Finance and government agencies concerned.

(3) Consideration will be given to conducting a study on the possibility for establishing a special fund for the development of financial institutions and industries in order to hold or purchase equities of financial institutions or industries; to accelerate the development of financial institutions and industries; and to take steps on the distribution of these economic assets to the public. The Ministry of Finance, the Bank of Thailand, and government agencies concerned will be responsible for this study.

4.2 Distribution of business ownership through SET.

(1) The development of the capital market will be undertaken through the setting up of a government agency under the Ministry of Finance specifically responsible for the supervision and development of the capital market, including newly issued shares and the securities trading market within the Fifth Plan period.

(2) Legislation of a comprehensive law on securities will be accelerated.

(3) Consideration will be given to revising the Securities Exchange of Thailand Act to provide conditions and stipulations on the proper distribution and transfer of equities. The Public Company Act will also be revised to conform with the Securities Exchanges Act. There should also be an amendment of the Announcement of the Ministry of Finance on the qualifications of listed and authorized companies so as to differentiate between them. As a corollary, the Civil and Commercial Codes should also be revised to assure compatibility with these revisions.

4.3 Reduction of the concentration of land ownership.

(1) The land tax rate will be revised to make it a progressive one so as to discourage land speculation and a special tax on land development will be levied in those areas where the government undertakes investments to stimulate growth under the development projects embodied in the Fifth Plan.

(2) The Farm Land Rent Act of B.E. 2517 will be more rigorously enforced for the more effective implementation by the authorities concerned.

(3) Additional capital will be made available to the Bank for Agriculture and Co-operatives (BAAC) from 2,000 million baht to 4,000 million baht within the Fifth Plan period so that it can expand medium and long term loans to farmers for the redemption of their lands.

(4) With respect to limiting land holding, the Government has already submitted the draft of the Revised Land Act to the Parliament which limits land holding for agriculture at no more than 50 rai. The Parliament has already given approval in principle to this Act.

For the rest of the land holdings which are of more than 50 rai, land reform will be undertaken. However, the approach to land reform will be shifted from the present comprehensive development approach to the granting of ownerships since comprehensive approach requires considerable investments but which benefit people in limited areas only.

PART IX

**ECONOMIC, SOCIAL AND EMPLOYMENT
STRUCTURE IN 1986**

ECONOMIC, SOCIAL AND EMPLOYMENT STRUCTURE IN 1986

If the objectives, targets, and development strategies of the Fifth National Economic and Social Development Plan are implemented, it is expected that by the year 1986, the last year of the Plan, the country's economic structure will be strengthened to cope with world economic changes more effectively. In addition, the overall financial position of the country and related fiscal management will be restored to a sufficiently stable level, providing a stronger foundation for further economic transformation and improvement of the population's welfare and employment opportunity during the next decade. The country's economic and production structures will be more self reliant and distributed more equitably towards the provincial areas with a more orderly growth of the Bangkok Metropolitan Area.

1. External Financial Position

At the end of the Fifth Plan, the country's external financial position will become stronger and more stable if targets and objectives of the Plan are implemented. The shares in GDP of trade and current account deficits will decline to 4.5 and 2.4 per cent, respectively. This means that in 1986, the trade deficit will amount to 83,600 million baht and the current account will show a deficit of 44,500 million baht which is sustainable and could be financed without affecting the country's financial stability.

Balances of trade and current account in 1986

	1981	1986
Trade balance (million baht)	-67,300	-83,600
Trade balance/GDP (%)	-8.2	-4.5
Current account (million baht)	-53,000	-44,500
Current account/GDP (%)	-6.5	-2.4

2. The Structure of Exports in 1986

During the Fifth Plan period, the country's export structure will change significantly. The share of manufacturing exports will rise from 29 per cent in 1981 to 42 per cent in 1986, and the shares of agricultural and mineral exports will decline (as shown in the table below), an indication of a more balanced and diversified export structure.

The structure of exports in 1986
(Share in total Exports)

	(%)	
	1981	1986
Agriculture	44.0	39
Marine products	4.0	4
Manufacturing	29.0	42
Minerals	9.5	7
Other	13.5	8
Total	100.0	100

3. The Structure of Imports.

During the Fifth Plan period the volume of oil import will decline by three per cent per year on average leading to a drop in the share of imported oil from 30.0 per cent in 1981 to 24.1 per cent in 1986. However, this is still relatively high when compared with the corresponding ratio of 20-22 per cent during the 1974-1979 period.

Share of oil import to total imports

	1979	1981	1986
Oil import/total import of goods	21.2%	30.0%	24.1%

4. External Debt Burden and the Stability of the Baht

During the Fifth Plan period, the country's external debt burden will remain at a sustainable level for the stability of the country's financial position and the baht exchange rate. During fiscal year 1986, the ratio of external public debt and interest repayments, when compared with the country's export earnings, or debt and interest repayments, when compared with the figure of 8.5 per cent for fiscal year 1981. All these will help to strengthen the stability of the baht.

5. Fiscal Position of the Government

After a period of restrictive fiscal and monetary policies during the Fifth Plan, the government's fiscal position will greatly strengthen when compared with the Fourth Plan as the budget deficit will decline from 3.2 per cent of GDP in 1981, the last year of the Fourth Plan, to only 1.1 per cent of GDP in 1986.

Comparative Data — 1981-1986:
The central government's revenue and
expenditure when compared with GDP

	(%)	
	1981	1986
Expenditure/GDP	17.2	19.1
Revenue/GDP	14.0	18.0
Budget surplus/GDP	-3.2	-1.1

After improvements in tax collection efficiency and adjustments in the tax structure, the government's revenue will increase from 14 per cent of GDP in 1981 to 18.0 per cent of GDP in 1986.

Furthermore, the tax structure will change in a better and more equitable direction as the proportion of direct taxes to total taxes will rise from 20.6 per cent in 1981 to 23.1 per cent in 1986.

Finally, the implementation of fiscal measures, economic structural adjustment programmes, and energy conservation measures will prevent the domestic price level from increasing at a high rate as in the past.

6. The Country's Production Structure

For the first time during the Fifth Plan period, the industrial sector will be of equal size to the agriculture sector in the country's economic structure. The production share of the agriculture sector will decline from 24.8 per cent of GDP in 1981 to only 22.5 per cent in 1986 while the share of the industrial sector will increase from 21.1 per cent of GDP in 1981 to 22.1 per cent in 1986. However, the production structure of the agriculture sector will improve sharply as productivity will rise and land and water resources will be utilized more efficiently. Cultivated area in 1986 will only be slightly higher than in 1981 but productivity will be as much as 20 per cent higher.

Concurrently, the structure of the industrial sector will significantly change during the next five years as the role of export industries will grow from 15 per cent in 1981 to 22 per cent in 1986. Furthermore, Thailand's manufacturing industry will become more efficient and more competitive in the world market. The utilization of labour and domestic raw materials in the production process will rise; the dependence on imported materials will decline; and industrial activities will be more dispersed towards the Eastern Seaboard which will become one of the most modern basic industry complexes in Southeast Asia. In a large measure, this will help to reduce or slow down the future rate of urban growth of the Bangkok Metropolitan Area.

**Production Structure of the Country
(Percentage Share in GDP)**

	(%)	
	1981	1986
Share in GDP		
Agriculture	24.8	22.5
Non-agriculture	75.2	77.5
— Manufacturing	21.1	22.1
— Mining and natural gas	1.7	2.6
— Construction	5.5	5.1

Finally, many new industries will be developed in Thailand, particularly those connected with natural gas, such as gas separation and petrochemical industries. In 1986, Thailand will be able to produce at least 525 million cubic feet of natural gas daily, an important factor contributing to the reduction of the country's oil import volume by three per cent per year during the Fifth Plan period. Furthermore, production and utilization of other indigenous sources of energy will rise, particularly lignite and hydropower which are expected to generate an additional 1,400 megawatts of electricity.

7. The Majority of the Population, Particularly Those in the Rural Area, will Receive More Extensively Social Services and Enjoy Higher Standard of Life.

This is evident from benefits which the people will receive from various social services at the end of the Fifth Plan:

(1) **Education.** In 1986, the illiteracy rate will decline to 10.5 per cent compared with the corresponding figure of 14.5 per cent in 1981. All children six years of age will have an educational opportunity at the Pathom one level. There will be a primary school for each tambon and one lower secondary school for every five large tambons. In addition, 7.5 million people with no previous schooling will be recipients of a non-formal education.

(2) **Health.** At the end of the Fifth Plan, people in the rural area will receive extensive health services as there will be a hospital for every district, a tambon health centre for each tambon and village medical volunteers for every village. Serious malnutrition among newly born babies will be eradicated completely. Moreover, 95 per cent of the rural population will have clean water for consumption.

(3) **Food and nutrition.** Problems of protein and calorie deficiency and anemia among pregnant women will be eradicated completely. In addition, protein and calorie deficiency of level three which is serious among babies and pre-school children will be eradicated. Finally, problems of goitre which is prevalent in the Northeast will be also eradicated.

(4) **Sports and recreational facilities.** One hundred and seventy five sports fields and gymnasiums at the district level will be constructed for the use of the general public. Recreational facilities including religious places all over the country will be built and improved for the use of the general public.

(5) **Housing.** Low income people living in the Bangkok Metropolitan Area will be provided with another 42,500 dwellings. In addition, 30,000 dwellings in deteriorated areas of the Bangkok Metropolitan Area will be improved, and another 7,500 housing units will be constructed in provincial areas.

8. Employment

The economic structural adjustment programme and development of backward rural areas will increase agricultural employment by 2.1 per cent per annum or by 1.8 million persons during the Fifth Plan period. Employment in the industrial sector will rise by 7.6 per cent per year or by 842,000 persons, while employment in the trade and banking sector will increase by 3.5 per cent per year or by 351,000 persons. The number of people employed in public administration and services sector will increase by 309,000 persons or at annual rate of 3.0 per cent, and lastly, employment in other sectors will rise by 194,000 persons or at a rate of 3.5 per cent per year. On the whole, total additional employment creation will total 3.5 million persons during the Fifth Plan period while the size of the labour force will rise at an annual rate of three per cent. Thus, open unemployment is expected to be around 552,000 persons or two per cent of the labour force in the last year of the Plan contrasted with the corresponding figures of 900,000 persons or 3.3 per cent in the same year if the economic and production structures are not adjusted to raise efficiency during the period of the Fifth Plan.

Employment and Open Unemployment
(thousands of persons)

	1981	1986
Total employment	23,254	27,044
Agriculture	16,770	18,594
Non — agriculture	6,754	8,450
— Manufacturing	1,896	2,738
— Trade and banking	1,879	2,230
— Public administration and services	1,960	2,269
— Other	1,019	1,213
Labour force	23,810	27,596
Open unemployment	286	552
Open unemployment/Labour force (%)	1.2	2.0

To summarize, if the country's economic and social problems are solved in accordance with the strategies of the Fifth Plan then it is expected that various development problems, even if they are severe, will be alleviated. If there is no unexpected international or domestic crisis during the next two or three years, it is predicted that the socio-economic position of Thailand will strengthen dramatically with a definite prospect of a very strong and stable position within the next 10 years.

The reason for taking such an optimistic view of the country's future socio-economic trend is that Thailand has a very good economic base with plenty of natural resources on land, in water and underground. Development strategies of the Fifth Plan emphasize the use of science and technology, and management systems appropriate to the country's environmental conditions in order to increase production and marketing efficiency and improve resource utilization in agriculture, industry, transportation and communication, and energy sectors. These strategies will help the Thai economic system to adapt to the world of "an expansive energy era" and become a "semi-industrialized country" with the value of agricultural production roughly equal to the manufacturing output for the first time by the end of the Fifth Plan period. In addition, Thailand will become a "newly industrialized" country within the Sixth Plan period. While, the economic foundation is strengthening, the population growth rate, which stood at 3.2 per cent per annum during the last 10 years and amounts to 2.2 per cent per annum at present, will further decline to 1.5 per cent per annum by the end of the Fifth Plan. Problems of the uneven distribution of social services among the country's population, which has been a key issue from the First Development Plan to the Fifth Development Plan, will be increasingly alleviated with improvements in the quality of life in the society.

However, the most important precondition for a brightening of Thailand future economic and social trend during the next 10 years is the reformation of the public development administration and management system to systematize the decision-making process, and improve management decision and control, monitoring and evaluation processes in order to ensure the systematic, effective and continuous implementation of economic and social development programmes in accordance with development strategies laid down in the Fifth Plan.