รายงานการฝึกอบรมหลักสูตร

“Application of Information and Communications Technology to Production and Dissemination of Official Statistics”

ณ UNSIAP, CHIBA in JAPAN

ระหว่างวันที่ 6 พฤษภาคม 2550 - 12 กรกฎาคม 2550

โดย

นายสมบัติ กิจจารุวงษ์

เจ้าหน้าที่วิเคราะห์นโยบายและแผน 6

สำนักบัญชีประชาชาติ

รายงานการฝึกอบรมหลักสูตร

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ณ ประเทศญี่ปุ่น ระหว่างวันที่ 6 พฤษภาคม 2550 – 12 กรกฎาคม 2550

การฝึกอบรมหลักสูตร Application of Information and Communications Technology to Production and Dissemination of Official Statistics Training Course จัดโดย United Nations Statistical Institute for Asia and the Pacific (UNSIAP) ภายใต้การสนับสนุนงบประมาณของรัฐบาลญี่ปุ่น (Japan International Cooperation Agency-JICA) เพื่อต้องการให้ประเทศกำลังพัฒนาที่เป็นสมาชิกของ ESCAP สามารถผลิตและจัดทำข้อมูลสถิติให้มีความรวดเร็วและถูกต้อง รวมถึงการเผยแพร่ข้อมูลและบทวิเคราะห์ โดยใช้เทคโนโลยีเครื่องมือที่เหมาะสม ซึ่งสามารถพัฒนาทักษะให้เกิดความชำนาญ ปรับปรุงการจัดทำและพัฒนาข้อมูลเป้าหมายการพัฒนาแห่งสหัสวรรษ (Millennium Development Goals-MDGs) ของประเทศ

วัตถุประสงค์

เพื่อพัฒนาปรับปรุงประสิทธิภาพเจ้าหน้าที่สถิติในการใช้เครื่องมือเทคโนโลยีสารสนเทศเพื่อการปฏิบัติงานและเผยแพร่ข้อมูล

ผู้เข้าร่วมการอบรม

ประกอบด้วย ผู้เข้าร่วมการอบรมจำนวนทั้งหมด 18 คน จาก 17 ประเทศ

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17 Mr. Sombat Kitjaruwong	Thailand	The Office of National Economic and Social Development Board
18 Ms.Tu Thanh Nguyen	Vietnam	General Statistics Office

การฝึกอบรม

เนื้อหาการฝึกอบรมประกอบด้วยการบรรยายโดยผู้เชี่ยวชาญและฝึกปฏิบัติ ในหัวข้อดังนี้

- ความรู้พื้นฐาน ICT ที่จำเป็นต่อหน่วยงานสถิติ ประกอบด้วย ICT Technologies, ICT Statistical Database (including meta data), ICT Analysis, ICT Implementation Consequences และ Official Statistics and ICT in MDGs

- โปรแกรมสำหรับกระบวนการจัดทำข้อมูลสถิติ ประกอบด้วย STATA Statistical Analysis, Data Management, Data Base Systems (DevInfo, ACCRESS), Data Mining, CSPro, Website Design and Statistical Data Dissemination (including Presentation of Website Design) และ Software Demo (SPSS, DMBSCOPY, NESSTAR, Tools, etc.)

- การนำเสนอ Project Work / Action Plan ประกอบด้วย Presentation Software and Presentation Techniques, Presentation of Country Reports, Training Techniques, Results Based Management (RBM), Project Work / Action Plan, Presentation of Project Work / Action Plan และ Finalization of Project Work / Action Plan

- การฟังบรรยายและการศึกษาดูงาน

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การฝึกอบรม

ก่อนเริ่มการฝึกอบรม ผู้เข้าร่วมอบรมต้องแนะนำตัวโดยสังเขป จากนั้นทำการทดสอบความรู้พื้นฐาน (Diagnostic Test) เพื่อวัดระดับเกณฑ์ความรู้ไว้เปรียบเทียบเมื่อสิ้นสุดการฝึกอบรม และมีการแนะนำเบื้องต้นเกี่ยวกับวัตถุประสงค์ เป้าหมาย และนำชมสถานที่ทำงาน (UNSIAP) โดยการฝึกอบรมมีดังนี้

หัวข้อ **Basic and Consequences of Using ICT in a NSO** ประกอบด้วย

1 ICT Technologies จำนวน 4 ชั่วโมง โดยมี Mr. M. Viney จาก Australian Bureau of Statistics (ABS) เป็นวิทยากร เนื้อหาบรรยายประกอบด้วย 3 ส่วน ส่วนที่ 1 บรรยายถึงระบบ ICT ฮาร์ดแวร์ ซอร์ฟแวร์ที่ใช้ปฏิบัติงานใน ABS โดยมีคำแนะนำว่าระบบควรจะต้องมีมาตรฐาน ควรมีการพัฒนาปรับปรุงอยู่ตลอดเวลา และจะต้องเข้าถึงระบบโครงสร้างข้อมูลได้อย่างสะดวกรวดเร็ว ปลอดภัย ส่วนที่ 2 บรรยายถึงความสำคัญของ ICT การพัฒนาเปลี่ยนแปลงของ ICT รวมถึงวัฏจักรของ ICT ที่เกิดขึ้นตั้งแต่อดีตถึงปัจจุบันและพยากรณ์คาดการณ์สู่อนาคต ซึงระบบที่จำเป็นต่อการปฏิบัติงานในเชิงสถิติข้อมูล ได้แก่ XML Web services Open sources Business process management E-learning และ Virtual network และส่วนที่ 3 บรรยายเกี่ยวกับการค้นหาระบบที่เหมาะสมในการปฏิบัติงานด้านสถิติข้อมูล ความสัมพันธ์กับหน่วยงานที่เกี่ยวข้อง การทำงานเป็นทีม ระบบความปลอดภัย และสิ่งสำคัญคือการจัดการความรู้ (Knowledge management)

2 ICT Statistical Database (including meta data) จำนวน 2 ชั่วโมง โดยมี Mr. M. Viney จาก Australian Bureau of Statistics (ABS) เป็นวิทยากร เนื้อหาบรรยายประกอบด้วยการอธิบายถึงความหมายและระบบของข้อมูลพื้นฐาน (Database) เครื่องมือที่ใช้ในการจัดการ (Database Management System – DBMS) เช่น Oracle DB2 Access MySQL FoxPro เป็นต้น โดยเป็นการบรรยายข้อมูลพื้นฐาน ไม่ได้ลงรายละเอียดในเครื่องมือแต่ละตัว และบรยายถึงลักษณะของข้อมูลและการใช้งาน โดยยกตัวอย่างของ ABS ประกอบการบรรยาย

3 ICT Analysis จำนวน 4 ชั่วโมง โดยมี Mr. M.Q. Hasan จาก UNSIAP เป็นวิทยากร บรรยายในเนื้อหาเกี่ยวกับความหมายของ ICT ส่วนประกอบของ ICT ความเกี่ยวข้องของ ICT กับหน่วยงานสถิติ ซึ่งเนื้อหาจะใกล้เคียงกับในหัวข้อ ICT Technologies และ ICT Statistical Database (including meta data) แต่จะมีจุดเน้นที่ตัวซอร์ฟแวร์โดยเฉพาะตัวที่เป็น Free software เช่น Open office เป็นต้น และให้ผู้เข้าฝึกอบรมทุกคน ค้นหาและนำเสนอคุณสมบัติของซอร์ฟแวร์ที่เป็น Free software

4 ICT Implementation Consequences จำนวน 2 ชั่วโมง โดยมี Mr. A.C. Kulshreshtha จาก UNSIAP เป็นวิทยากร เนื้อหาประกอบด้วย ICT สำหรับหน่วยงานสถิติ สถานะของ ICT ในหน่วยงานสถิติต่างๆ ในภูมิภาค และการจัดการ IT ในหน่วยงานสถิติ มีจุดเน้นที่การจัดการโดยเฉพาะการ Outsourcing และความปลอดภัย และให้งานแก่ผู้เข้าฝึกอบรมทุกคน นำเสนอโครงการในหน่วยงานที่ต้องใช้ ICT ในการปฏิบัติงาน

โดยย่อ โดยนำเสนอกระบวนการทำงาน ผลที่ได้รับและการนำไปใช้ประโยชน์ ซึ่งข้าพเจ้านำเสนอ Import and Export Application ที่ประมวลผลข้อมูลมูลค่าการนำเข้าส่งออกสินค้า เพื่อใช้งานประมวลผลผลิตภัณฑ์มวลรวมในประเทศ

5 Official Statistics and ICT in MDGs จำนวน 2 ชั่วโมง โดยมี Mr. A.C. Kulshreshtha จาก UNSIAP เป็นวิทยากร เนื้อหาประกอบด้วยความรู้เกี่ยวกับข้อมูลเป้าหมายการพัฒนาแห่งสหัสวรรษ (Millennium Development Goals-MDGs) ในทุกเป้าหมายและทุกตัวชี้วัด

หัวข้อ **Applicable Technologies for Statistical Processes** ประกอบด้วย

1 STATA Statistical Analysis จำนวน 8 ชั่วโมง โดยมี MS. A. Gereiltuya จาก UNSIAP เป็นวิทยากร เนื้อหาบรรยายประกอบด้วยความรู้เบื้องต้น การใช้งานในคำสั่งเฉพาะต่างๆ และความสามารถของโปรแกรม STATA โดยมีการทำแบบฝึกหัดเสริมเพื่อสร้างความเข้าใจเพิ่มขึ้น

2 Data Management จำนวน 4 ชั่วโมง โดยมี Mr. M.Q. Hasan จาก UNSIAP เป็นวิทยากร เนื้อหาประกอบด้วยการจัดการข้อมูล การวางแผนและกระบวนการจัดการข้อมูล ซอร์ฟแวร์ที่ใช้งานตั้งแต่เริ่มจัดทำข้อมูลสถิติจนถึงการเผยแพร่ข้อมูล ซึ่งให้ความสำคัญต่อการจัดการความรู้ (Knowledge management)

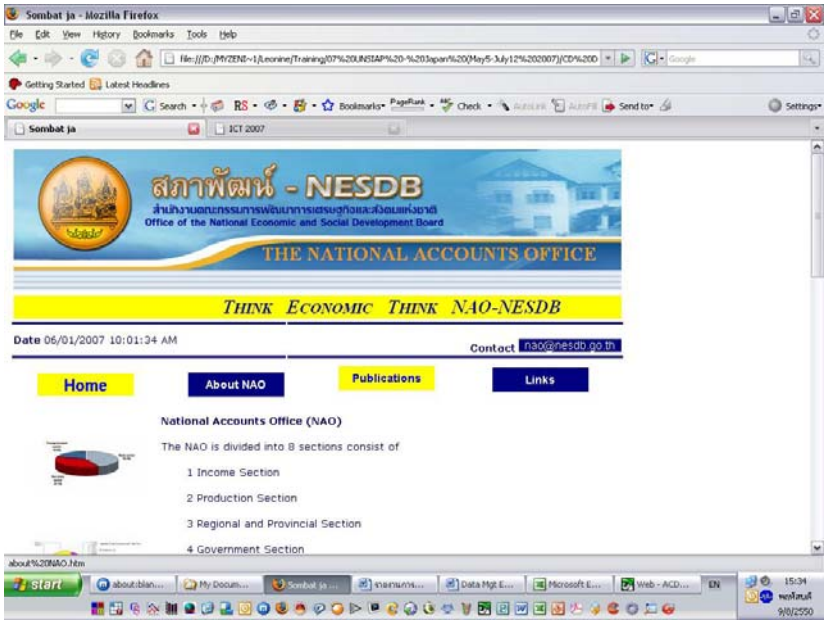
3 Data Base Systems (DevInfo, ACCESS) จำนวน 14 ชั่วโมง โดยมี Mr. E. Hermouet จาก ESCAP เป็นวิทยากร เนื้อหาบรรยายประกอบด้วยความรู้เบื้องต้น การใช้งานและความสามารถของโปรแกรม DevInfo ซึ่งเป็นโปรแกรมที่มีคุณสมบัติในการประมวลผล การนำเสนอข้อมูลในรูปของตาราง กราฟและแผนที่ โดยมีการทดลองทำแบบฝึกหัดเพื่อเพิ่มความเข้าใจ และบรรยายเกี่ยวกับโปรแกรม ACCESS ในภาพรวม เนื่องจากส่วนใหญ่ของผู้ฝึกอบรมเป็นนักสถิติที่มีความรู้ความเข้าใจและใช้งานอยู่เป็นประจำ

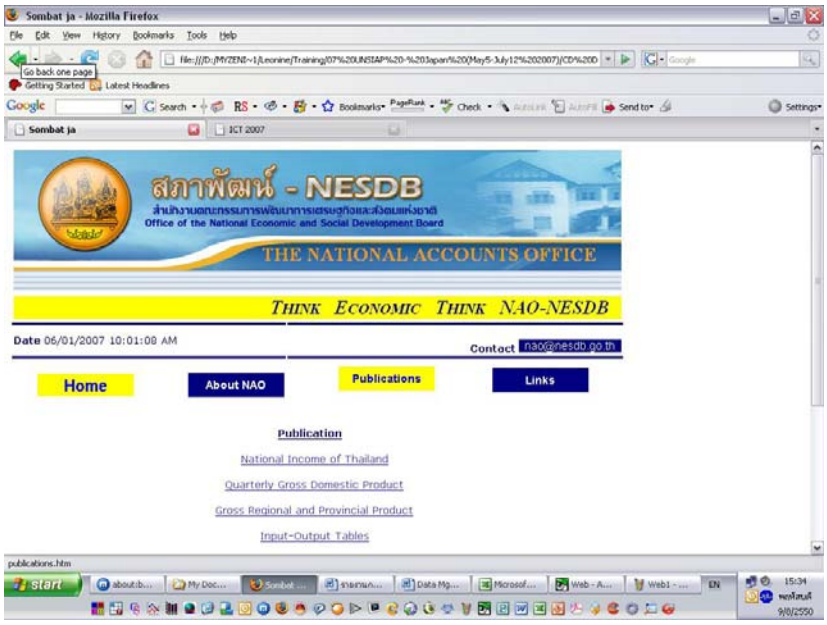
4 Data Mining จำนวน 2 ชั่วโมง โดยมี Mr. M.Q. Hasan จาก UNSIAP เป็นวิทยากร เนื้อหาประกอบด้วยความหมายของ Data Mining เทคนิคและซอร์ฟแวร์ที่ใช้ ซึ่งคล้ายกับการพยากรณ์ข้อมูลจากข้อมูลที่มีอยู่ เพื่อนำมาใช้ประโยชน์ต่างๆ ตามที่ต้องการ และในท้ายชั่วโมงมีการทำแบบฝึกหัดเสริมโดยใช้โปรแกรม STATA เพื่อสร้างความเข้าใจเพิ่มขึ้น

5 CSPro จำนวน 28 ชั่วโมง โดยมี Mr. M.Q. Hasan และ Ms. Ni N. Thein จาก UNSIAP เป็นวิทยากร เนื้อหาประกอบด้วยความรู้เกี่ยวกับโปรแกรม การใช้งาน การสร้าง Application เพื่อการเก็บข้อมูล การประมวลผล ซึ่งเนื้อหาเกี่ยวกับ CSPro นี้เป็นหัวข้อที่ใช้เวลามากที่สุด เนื่องจาก CSPro เป็น Free ware สามารถเข้าไป download ได้จากเว็บไซต์ www.cspro.org มีการทำแบบฝึกหัดเพื่อเพิ่มความเข้าใจและสามารถประยุกต์ใช้เทคนิคต่างๆ ที่เป็นคุณสมบัติของโปรแกรมในการปฏิบัติงานให้สนองตอบตามความต้องการ

6 Website Design and Statistical Data Dissemination (including Presentation of Website Design) จำนวน 14 ชั่วโมง โดยมี Mr. Naylin Oo จาก ESCAP และ Mr. M.Q. Hasan และ Ms. Ni N. Thein จาก UNSIAP เป็นวิทยากร เนื้อหาบรรยายประกอบด้วยการแนะนำให้ความรู้เบื้องต้นเกี่ยวกับระบบอินเตอร์เน็ต

ทั้งที่เป็นฮาร์ดแวร์และซอร์ฟแวร์ กระบวนการจัดทำเว็บไซต์ตั้งแต่การวางแผน รูปแบบ การเผยแพร่ และการฝึกปฏิบัติโดยทำการออกแบบและจัดทำเว็บไซต์ด้วยโปรแกรม MS Office Front Page และนำเสนอถึงแนวคิดและเหตุผลในการจัดทำ ซึ่งเว็บไซต์จะเป็นช่องทางหนึ่งที่ใช้ในการเผยแพร่ข้อมูลทางสถิติสู่สาธารณะ (ดังตัวอย่าง)





7 Software Demo (SPSS, DMBSCOPY, NESSTAR, Tools, etc.) จำนวน 6 ชั่วโมง โดยมี Mr. M.Q. Hasan และ Ms. Ni N. Thein จาก UNSIAP เป็นวิทยากร เนื้อหาในหัวข้อนี้จะเป็นการบรรยายแนะนำคุณสมบัติของโปรแกรมต่างๆ ที่สามารถนำมาประยุกต์ใช้ในงานสถิติได้ เช่น SPSS NESSTAR Spectrum เป็นต้น รวมถึงการแนะนำการใช้งาน Google Earth เพื่อใช้งานในการกำหนดพื้นที่เก็บข้อมูลว่ามีขนาดเท่าใด การเข้าถึงเป็นอย่างไร

หัวข้อ **Presentation and Project Work / Action Plan** ประกอบด้วย

1 Presentation Software and Presentation Techniques จำนวน 6 ชั่วโมง โดยมี Mr. M.Q. Hasan และ Ms. Ni N. Thein จาก UNSIAP เป็นวิทยากร เนื้อหาบรรยายประกอบด้วยการแนะนำถึงความสำคัญใน

การถ่ายทอดข้อมูล วิธีการ เทคนิคและกระบวนการนำเสนอเพื่อให้เกิดประสิทธิภาพสูงสุด เช่น เนื้อหาข้อมูลสภาพแวดล้อม ข้อมูลผู้ฟัง เป็นต้น โดยใช้เครื่องมือ MS Office PowerPoint และฝึกปฏิบัติโดยนำเอา Country Report มาจัดทำและนำเสนอ (ตามเอกสารแนบ 1)

2 Presentation of Country Reports จำนวน 4 ชั่วโมง เป็นการนำเสนอ Country Report ของผู้เข้าร่วมฝึกอบรมทุกคน แต่ละคนใช้เวลาประมาณ 10 นาที

3 Training Techniques จำนวน 4 ชั่วโมง โดยมี Mr. A. DeSilva จาก UNSIAP เป็นวิทยากร เนื้อหาบรรยายเกี่ยวกับเทคนิคและรูปแบบของวิทยากร (Trainer) ที่ดีว่าจะต้องมีคุณลักษณะเช่นใด และมีการฝึกปฏิบัติในชั้นเรียน

4 Results Based Management (RBM) จำนวน 8 ชั่วโมง โดยมี Ms. C. Davaasuren ผู้อำนวยการ UNSIAP เป็นวิทยากร มีเป้าหมายเพื่อให้ผู้เข้าฝึกอบรมทุกคนสามารถเป็น Change Agent ในหน่วยงานที่ตนปฏิบัติงานอยู่ได้ รวมถึงสามารถวิเคราะห์ปัญหาและหากลวิธีมาแก้ไขปัญหาต่างๆ ที่เกิดขึ้นได้ โดยใช้แนวคิดของ RBM Logical Framework Diagram และ Tree diagram

5 Project Work / Action Plan จำนวน 23 ชั่วโมง เป็นการฝึกปฏิบัติ แบ่งเป็น 2 ส่วน ส่วนแรกเป็น Project Work โดยแบ่งเป็นกลุ่มๆ ละ 5 คน เพื่อทำโครงการที่เกี่ยวกับการจัดทำข้อมูลสถิติจนถึงการเผยแพร่ข้อมูลโดยใช้ความรู้ที่ได้จากการฝึกอบรม และเป็นการฝึกการทำงานเป็นทีม ซึ่งในกลุ่มประกอบไปด้วย ผู้เข้าอบรมจากประเทศ Rwanda Lao PDR Cook Islands Bangladesh และ Thailand จัดทำในเรื่อง The survey on the use of ICT facilities in TIC และส่วนที่ 2 เป็นการทำ Action Plan ที่จะต้องปฏิบัติเมื่อเดินทางกลับประเทศ (ตามเอกสารแนบ 2 และ 3)

6 Presentation of Project Work / Action Plan จำนวน 4 ชั่วโมง เป็นการนำเสนอ Project Work ของแต่ละกลุ่ม ซึ่งใช้เวลาประมาณ 50 นาทีและแต่ละคนนำเสนอ Action Plan คนละ 5 นาที

7 Finalization of Project Work / Action Plan จำนวน 2 ชั่วโมง เป็นการซักถามเกี่ยวกับเนื้อหา Project Work และ Action Plan ที่นำเสนอทั้งหมดของผู้เข้าฟัง

หัวข้อ **Special Lectures / Visit** ประกอบด้วย

1 Japanese Trends in Internet Usage จำนวน 2 ชั่วโมง โดยมี Mr. S. Suzuki จาก Fujisu Limited เป็นวิทยากร เนื้อหาบรรยายประกอบด้วยแผนกลยุทธ์ ระบบและความแพร่หลายในการใช้งาน มูลค่าและผลประโยชน์ที่เกิดขึ้นจากการใช้ Internet ในประเทศญี่ปุ่น โดยเฉพาะตลาดการใช้งานผ่านโทรศัพท์มือถือทั้งที่เป็น e-media e-commerce e-mail รวมถึงระบบความปลอดภัยจากการใช้งาน

2 Application of ICT in Statistical Processes in Japan (METI's Case) จำนวน 2 ชั่วโมง โดยมี Mr. K. Motohashi จาก RCAST, University of Tokyo เป็นวิทยากร เนื้อหาบรรยายประกอบด้วยการแสดงให้เห็น

ความสัมพันธ์ในกระบวนการจัดทำข้อมูลสถิติของประเทศญี่ปุ่น ทั้งที่เป็นฮาร์ดแวร์และซอร์ฟแวร์ รวมถึงทรัพยากรบุคคล ว่ามีโครงสร้างและการปฏิบัติงานเช่นใดจึงทำให้ได้ข้อมูลสถิติที่มีความถูกต้องรวดเร็ว

3 E-Government in Japan จำนวน 2 ชั่วโมง โดยมี Mr.T. Ohashi จาก Professor, Meisei University, Japan เป็นวิทยากร เนื้อหาบรรยายประกอบด้วยการเปลี่ยนผ่านจากระบบเดิมไปสู่ระบบ Paperless ที่ใช้ IT เข้ามาช่วยสนับสนุน และชี้ให้เห็นถึงความสัมพันธ์ของระบบฐานข้อมูลต่างๆ ที่รัฐบาลกลางและรัฐบาลท้องถิ่นต้องประสานงานกัน เพื่อให้การปฏิบัติงานเกิดประสิทธิภาพ สะดวกรวดเร็ว โดยจำเป็นต้องมีแผนกลยุทธ์ในการสนับสนุนให้ระบบสามารถดำเนินไปอย่างต่อเนื่อง เช่น แผนผลิตบุคลากรด้าน IT เป็นต้น

4 Group Visit จำนวน 4 ชั่วโมง เป็นการเยี่ยมชมและฟังบรรยายการปฏิบัติงานของหน่วยงานที่เกี่ยวข้องกับ ICT และข้อมูลสถิติ ได้แก่ Tokyo Traffic Control Center และ Japan National Statistics Office และมี Field Trip ไป Hiroshima และ Kyoto ซึ่งทำให้ได้ประสบการณ์ความรู้ใหม่ ที่จะนำมาประยุกต์ใช้ในการปฏิบัติงาน

ภายหลังสิ้นสุดการฝึกอบรม มีการทดสอบ Final Test เพื่อวัดระดับความรู้ที่เปลี่ยนแปลงจากการฝึกอบรม ซึ่งผลที่ออกมาพบว่าเป็นไปในทิศทางที่ดีขึ้นอย่างมีนัยสำคัญ

ผลการฝึกอบรม (Output)

1 PowerPoint for Country report (เอกสารแนบ 1)

2 รายงานฉบับสมบูรณ์ The survey on the use of ICT facilities in TIC (เอกสารแนบ 2)

3 PowerPoint for Action Plan (เอกสารแนบ 3)

ประโยชน์ที่ได้รับ (Outcome)

1 ได้รับความรู้ความเข้าใจในขั้นตอนการจัดทำข้อมูลสถิติ ตลอดจนสามารถนำเสนอต่อสาธารณะได้ด้วยเครื่องมือต่างๆ รวมถึงได้รับประสบการณ์ในระดับสากล

2 สามารถใช้โปรแกรมใหม่ๆ ที่เป็น Free Software และโปรแกรมที่ง่าย สะดวกต่อการจัดทำข้อมูลและเผยแพร่ข้อมูลสถิติ เช่น STATA, CSPro, DevInfo และ FrontPage เป็นต้น

3 สามารถนำความรู้ที่ได้รับจากการฝึกอบรมมาประยุกต์ใช้ในงานที่รับผิดชอบ เช่น การเก็บข้อมูลและบันทึกข้อมูลการลงทุนของรัฐวิสาหกิจ โดยเขียน Application ด้วยโปรแกรม CSPro เป็นต้น

ข้อเสนอแนะ

1 ควรปรับปรุงระบบข้อมูลพื้นฐานต่างๆ ที่ต้องใช้ร่วมกัน ให้มีระบบการจัดการและการจัดเก็บที่ถูกต้องตามหลัก Data Management โดยนำแนวคิดที่ได้รับจากการฝึกอบรมและการดูงานมาประยุกต์ให้เหมาะสม

2 การสนับสนุนเจ้าหน้าที่ทุกระดับของสำนักบัญชีประชาชาติเข้ารับการอบรมในเรื่อง Application of Information and Communications Technology to Production and Dissemination อย่างสม่ำเสมอและต่อเนื่อง เพื่อเป็นการพัฒนาองค์ความรู้ให้สามารถทำงานได้อย่างมีประสิทธิภาพ

เอกสารอ้างอิง

CD Rom บันทึกเอกสารประกอบการฝึกอบรมและผลการฝึกอบรม

เอกสารแนบ 1

Country Report

Application of Information and Communications Technology

to Production and Dissemination of Official Statistics

Training Course

(May 5 – July 12, 2007, Japan)

By

Sombat Kitjaruwong

Policy and Plan Analyst

The Office of National Economic and Social Development Board

Thailand

1 Name of Participant: Mr. Sombat KITJARUWONG

2 Name of Country: Thailand

3 Name of Organization and Roles:

3.1 Name of Organization

The Office of National Economic and Social Development Board

3.2 Roles of Organization

3.2.1 History background

The office of the National Economic and Social Development Board (NESDB) was initially named the National Economic Board (NEB). The NEB was established in February 1950 to advise and recommend appropriate measures to the Royal Thai Government on general economic matters.

Following the World Bank recommendation, The NEB was restructured and its roles were enhanced to be a central planning agency in order to formulate plans for national development. In 1959, the NEB was renamed as the office of the National Economic Development Board or the NEDB. The First National Economic Development plan was launched in 1961, two years later. Then social development has been integrated to the planning process to have it consistent with economic development. Consequently, the NEDB was renamed as the NESDB since 1972. Nowadays, the NESDB is an office governed by the Prime Minister's Office.

3.2.2 Operational mechanisms

In compliance with the National Economic and Social Development Board Act of 1978, NESDB operations are divided into two levels, namely the NESDB Board and the Office of NESDB.

1) The National Economic and Social Development Board comprises of 15 distinguished professionals, including a chairman and 9 competent experts from development fields. There are five ex-officio members, namely Secretary-General of Civil Service Commission, Director of the Bureau of the Budget, Director-General of the Fiscal Policies Office, and Governor of the bank of Thailand. The NESDB Secretary-General serves as a member and secretary. The committee works for a four-year term. Responsibilities of the NESDB Board are:

- Providing comments and recommendations on national economic and social development to the cabinet.
- Reviewing the National Economic and Social Development Plan and considering proposals of other NESDB proposals, then proposed them to the cabinet for approval.
- Providing recommendations to the Prime Minister on economic and social development issues as requested.
- Coordinating between the NESDB and related government agencies and state enterprises to formulate plan, development projects, and implementation.

2) The Office of the National Economic and Social Development Board.

The Office of the National Economic and Social Development Board is adjusting its role to accommodate key development variables, notably the move towards a knowledge-based economy, civil service reforms and good governance principles. Its vision statement is: "to become a key agency on planning and formulation of development strategies based on balanced and sustainable development, public participation, and flexibility meeting changing environment and needs of Thai people."

3.2.3 The Organization of the NESDB

The Offices of NESDB has divided its administrative structure into 13 offices as follows:

1) Macro Economic Office
2) National Accounts Office
3) Competitiveness Development Office
4) Spatial Development Office
5) Northern Region Office
6) Northeastern Region Office
7) Central Region Office
8) Southern Region Office
9) Natural Resource Environment Science and Technology Development Office
10) Infrastructure Project Office
11) Development Evaluation and Communication Office

12) Quality of life and Social Development Office

13) Community Economic Development and Income Distribution Office

3.2.4 Key functions of the NESDB

1) Existing functions, as stipulated under the National Economic and Social Development Board Act B.E. 2521 (1978):

- Legitimate roles and responsibilities

- Formulating the National Economic and Social Development Plan, and translating this plan into action within a five-year timeframe.

- Analyzing budget proposals by state enterprises, and those of development programs and projects of government agencies and of state enterprises. (The National Economic and Social Development board Act B.E. 2521 (1978), the Act on Private Sector Participation in Government Operations B.E. 2535 (1992), the Act on State Enterprise Budgets B.E. 2522 (1979), and the Act on Debt Regulations B.E. 2528 (1983)).

- Creating a database for planning, especially on national accounts statistic.

- Monitoring and evaluating national development plan and developing development indicators.

- Roles and responsibilities under key policies

- Making four national agendas: (a) alleviation of poverty and income distribution problems, (b) enhancing Thailand's competitiveness, (c) promoting social capital development and (d) promoting sustainable development.

- Formulating strategies for key government policies and major development projects: (a) the Sufficiency Economy. (b) the Brain Bank. (c) the development of Ratchadamnoen Avenue.

2) New Missions; Based on internal and external factors during the past ten years, the NESDB has to restructure its roles and responsibilities. The NESDB has position itself as the development agency aiming toward balanced and sustainable development through effective data and performance appraisal. Mission of NESDB is:

- Formulation and implementation of both short and long-term strategies, including the national investment plan. The Office of the NESDB will also act as a consulting agency for the government. It will serve as a central coordinating agency for policy, program and project development with other government agencies.
- Formulating a four-year government administration plan. This plan will come into effect 90 days after the government delivers its policy statement to Parliament. NESDB will also assess the cost-effectiveness of government operations at all levels.
- Evaluating and monitoring government policies and development strategies.
- Developing database and social and economic development indicators. This mission aims to equip NESDB with capability to predict potential social and economic threats against national development and to offer preventive solutions.
- Developing of the transparent and effective NESDB management system which meets international-recognized standards.

The function of 13 offices of NESDB are defined as follows:

1) Macro Economic Office: Formulate short and long term economic strategy including monetary and fiscal policies providing recommendation on economic issue as request.

2) National Accounts Office: To collect and create database on National Account in order to planning and monitoring economic development.

3) Competitiveness Development Office: To formulate and operate the country competitiveness policy

4) Spatial Development Office: To coordinate between relate government agencies to formulate development spatial projects and implementation.

5) Regional Office; include Northern, Northeastern, Central and Southern.: To formulate and implement regional strategies and evaluate country development in each region.

6) Natural Resource Environment Science and Technology Development Office: To formulate, evaluate and monitor natural resource, environment, science and technology development plan.

7) Infrastructure Project Office: To analysis budget proposals by state enterprises, and infrastructure projects.

8) Development Evaluation and Communication Office: To evaluate and monitor national development plan and government policies.

9) Quality of life and Social Development Office: To formulate and evaluate social development plan at all level.

10) Community Economic Development and Income Distribution Office: To formulate and evaluate community development together with operating national agenda on alleviation of poverty and income distribution.

3.2.5 Human Resources: 560 persons

1) Executive 7 persons
2) Policy and plan analyst 475 persons
3) Support staff 78 persons

3.3 The Activities of the unit/section/division of the Organization of the Nominee

I am working in the Capital Account and Balance Sheet Section, the National Accounts Office (NAO), of which responsibility is as follows:

3.3.1 The National Accounts Office

1) The NAO is divided into 8 sections consist of
   - Income Section
   - Production Section
   - Regional and Provincial Section
   - Government Section
   - Household and Non-Profit Institution Serving Household Section
   - Financial Section
   - Supply and Use Section
   - Capital Account and Balance Sheet Section
2) The NAO is responsible for
   - Compile and analyze The Annual National Accounts, by three approaches consist of (a) the production approach , (b) the expenditure approach and (c) the income approach, compilation and analysis.

- Compile and analyze The Quarterly National accounts by the production approach and the expenditure approach.
- Compile and analyze Gross Provincial Product, Flow of Funds Accounts, Input-Output Table.
- Develop National Balance Sheet.
- Study and develop database and compilation method for rebasing national accounts statistics in Thailand in order to better reflect the current economic condition of the country.
- Study and develop the System of National Account of Thailand to follow the International Standard of 1993 SNA and compilation of satellite accounts e.g.. National Health Accounts, Tourism Accounts and Education Accounts.
- Develop and coordinating for the economic and social statistical database in order to use in national accounts compilation, economic and social situation analyzing, research and development, and economic and social development formulating and planning

3) Human resources

Director	1 person
Policy and plan analyst	35 persons
Supportive staff	4 persons

3.3.2 The Activities of Capital Account and Balance Sheet Section

1) Compile and analyze the national accounts statistics on the expenditure side, specifically gross fixed capital formation.

2) Compile and analyze capital stock.

3) Study and develop database and compilation method for rebasing national accounts statistics and develop the System of National Account of Thailand to follow the International Standard of 1993 SNA.

4 Statistical System of Thailand

4.1 Present Statistical Operation

Statistical data is useful and important for various data users, both of government and private sectors. Thailand has been formulated the Economic and Social Development

Plan every five years since 1961, which makes this year, 2007, under the 10th plan (2007-2011), In the process of planning, monitoring and evaluating national development, statistical data should have 6 qualities. They includes *(1) Consistency:* data should be consistent with smallest errors possible so that the data is reliable, *(2) Promptness:* data should be up-to-date with current situation as the data would be useless if it comes too late despite its consistency, *(3) Completeness:* data should includes all the facts, at least the ones required by users, *(4) Concise:* data should not include too much data so that it's convenient to use and doesn't take too much time to search, *(5) Meet the needs of users:* data should be beneficial to users in decision-makings and problem-solving purposes rather than providing lots of data that no one need, and *(6) Continuity:* data should be compiled and collected on a continuous basis so that it can be used in the most efficient way in analysis.

4.1.1 Statistical System

Statistical system is an operating system of statistical practices at the national level. Generally there are 2 systems, namely Centralized Statistical System and Decentralized Statistical System.

1) Centralized Statistical System is a system in which a statistical unit (or statistical office) run by government is a sole compiler of all statistical data.

2) Decentralized Statistical System is a system with many government agencies compiling data, including the central statistical office who also in charge with coordinating and supervising the operations of data producers.

Thailand is now using the latter system, which means data is not stored at only one single government office. Rather, the National Statistical Office (NSO) acts as central agency collecting and coordinating statistical data from statistical units scattered in ministries, departments and state enterprises who produce the data for purpose of their own administrative and management within their units. In administration of Thai Statistics, the NSO is authorized by Statistical Act of 1965 to compile basic statistics that reflect social and economic structure of the country as well as to collaborate with and participate in the coordination of the work of statistical agencies in the assembling, compilation and analysis of statistics.

4.1.2 Advantages and Drawbacks of the Statistical Systems include the followings:

1) Centralized Statistical System has an advantage of gathering resources including officers, budget, computers, etc. into one single office, which would complement one another to work in the most efficient way. This reduces the problem of work duplication. The system also enables the office to control statistical standards so that the statistics do not conflict one another. However, the system poses drawbacks in prioritizing the statistical works as well as in speed of operation and finding specialists to work for.

2) Decentralized Statistical System, on the other hands, is able to prioritize the importance of the statistics so that the most important ones can be compile promptly. With specialized academics in each ministry to help in statistics in each specific area, it reduces the work of the NSO would have had too much workload to compile all statistics by itself. This is more convenient to the system as a whole. However, its drawbacks includes that the limited resources of statisticians are scattered into different agencies, increasing possibility of work duplication if they do not coordinate well; statistical data conflicts may arise; controlling statistical standard becomes more difficult; lack of statistics in some areas; and it adds burden to public as they have to provide data repeatedly. This might result in increasing un-cooperative participants.

For Thailand, which is using the latter system, part of the data is under responsibility of the NSO while the rest is in the hands of ministries, departments and other agencies according to their specialized areas.

4.2 National Accounts Statistics

4.2.1 Basic Concepts

National Accounts or national income accounts show economic flows among economic units at the macro level. These flows include production of goods and services which in turn leads to income payable to factors of that production, disposition of that income, saving and investment of economic institution. This also includes economic activities dealing with the rest of the world, especially export and import of goods and services.

Moreover, the national accounts as the whole system will also include investment in financial and intangible assets and capital stocks including changes in stocks caused by various factors.

4.2.2 National Accounts System

The whole three approaches of annual national account compilation of Thailand have been based on 1953 SNA. The production approach is the core one. The system comprises 6 accounts, i.e. (1) Domestic Product, (2) National Income, (3) Domestic Capital Formation, (4) Household and Private Non-Profit Institutions, (5) General Government, and (6) External Transaction (the rest of the world) together with 10 tables and 49 supporting table. However, definitions, meanings and valuation methods according to the 1968 SNA have partly incorporated.

The classification on the production approach is based on Thailand Standard Industrial Classification (TSIC) comprising 16 production sectors whereas Standard International Trade Classification (SITC) is applied to the expenditure approach. On the income approach, income returned to the factors of production is classified in accordance with the 1953 SNA.

4.2.3 Annual National Accounts Compilation

National account compilation is strong on the macroeconomic background in order that the results are very beneficial and leading to effective policy outlining. The basic concept of the macroeconomic theory is

Aggregate Supply = Aggregate Demand Or

$Y = C + I + G + (X-M)$

Where Y or GDP = National Income

C = Private Final Consumption

I = Private and Government Investment

G = Government Final Consumption

X = Export of Goods and Services

M = Import of Goods and Services

Based on the equation, NI can be equally derived by three different approaches as follows:

1) Production Approach: On the supply side, the aggregate supply or GDP is actually the production of goods and services grouped into sectors of agriculture, manufacturing and service etc. The value-added technique is used in this approach. Value added is the result of gross output less intermediate consumption. The summation of value added from all economic production is the aggregate supply or GDP of the economy.

2) Expenditure Approach: On the demand side, the aggregate demand is the total value of final consumption in the economy. The final consumption consists of

- Final expenses made by households
- Final expenses made by government
- Data on exports and imports of goods and services
- Investment or capital formation

3) Income Approach: The compilation is based on how the National Income is allocated to the factors of productions. The aggregation can be carried out either directly or indirectly. The direct estimation is simply the summation of employees derived from the product of number of employees and average wage rates classified by manufacturing types. The indirect estimation will be performed when some data is not available e.g. the revenue of un-registered companies. The estimation has to rely on the results of the first 2 approaches. Similarly, this technique is also applied to the estimation of savings of government and corporations. The estimation of household saving is performed indirectly.

Currently, National Income of Thailand is estimated by all 3 approaches. The production and expenditure approaches are compiled at both current and constant (1988) prices whereas the income approach is estimated at current prices only.

4.2.4 Quarterly National Accounts (QNA) Compilation of Thailand

In the past, Thai QNA was estimated by the quarterization technique, by which the annual GDP was broken down into desired four quarters or twelve months. However, QNA of a current quarter has just started to be compiled by basing on the current information since 1999. This is the initial step of the introduction and of the establishment of the QNA compilation system for Thailand.

1) Concepts of Quarterly National Accounts (QNA)

There are basically two main aims of QNA estimation. First, QNA must be able to correctly indicate the direction of economic movements, including turning points. It must also be timeliness, if possible, the most recent estimated QNA has to be of the previous quarter as the latest. QNA estimation in most countries is not carried out for all of the accounts in the system. The fact is that not all quarterly data are obtainable whereas annual data are. Therefore, only main accounts that can address short-term movements of the economy are compiled. For instance, Japan compiles QNA mostly on the expenditure side and a little bit on the income side, the USA mainly on the income side and some part of the expenditure side, Canada and Australia on all three approaches.

In the case of Thailand, the main features of the QNA are as follows:

- Compilation is carried out on the production (QGDP) and on the expenditure (QGDE) approaches in accordance with the available data. The production approach is the core side as in the annual estimation;
- Definition, coverage and valuation used are similar to the annual estimation; and
- Estimation is made on both current market and constant 1988 prices.

2) Classification

The classification used in the QNA compilation in line with the 1993 SNA. The production approach utilizes the International Standard Industrial Classification rev. 3 (ISIC) by which there are 16 sectors of production compared with same sectors in the annual estimation. In addition, the simple agricultural products are all included in the manufacturing sector instead of the agricultural sector as in the annual estimation. The Central Product Classification (CPC) is used on the expenditure approach leading to a significant difference in the groupings of products for consumption and capital formation from the annual estimation.

3) Methodology

Ideally, both quarterly and annual NA compilation should use the same technique, however different methods are unavoidable in some cases. Estimation directly based on the statistics is essential.

The methods used in the QGDP compilation in the case of Thailand are as follows:

- Direct Method: This method is similar to the method used to estimate annual GDP. It can be used in the case that quarterly and annual data are the same in terms of details. The summation of four quarters of GDP should be equal to its annual figures. In other words, summing up the four quarters of QGDP of that year can directly derive the annual GDP. This method are used, for example, in the cases of state enterprises, manufacturing goods estimates based on Manufacturing Production Index and services provided by government. On the expenditure side, it is used in the cases of government expenditure, export and import, household expenditure on some items like vehicles, tobacco, and beverage and it is also utilized in the case of capital formation on the items of construction and vehicles and transport equipment etc.

- Extrapolation Method: By this method, each item of QGDP is extrapolated from a benchmarking quarter with its relevant indicators. This method is a standard and the most popular one. The correctness of each item depends on the consistency between the indicator and its related QGDP item. The results obtained from this method need to be equalized to the later available annual GDP figures. The adjusted figures will then be used as a benchmark for QGDP of the following year. Therefore, quality indicators have to be able to lead to the summation of the estimates of four quarters of GDP of a year equivalent to its annual GDP. The items of indicator of the current quarter may be different from the previous quarter. This is because the current quarter relies very much on the data availability whereas in the previous quarter the emphasis is on the correctness as it is used as the benchmarking quarter of the current quarter estimation. Moreover, the indicators may be changed if they are very volatile or they cannot effectively reflect the economic conditions.

- Commodity flow technique: The commodity flow method is used mainly in estimating the quarterly change in inventories.

- Primary data from sources: Some primary data are directly collectable from sources such as all state enterprises. Also the data on changes in inventories for the 1997 base were directly collected from businesses.
- Past trend adjustment method: It is used for small item estimation. The adjustment may be based on the average growth rate of the previous year or on the results obtained from dividing the annual figures by 4. However, this method can lead to a step-change problem between the last quarter of one year and the first quarter of the following. Therefore, it is not recommended other than to very small items.

- Direct estimation: This technique is used on the sides of production, expenditure and average both by 67, 75 and 71 percent, respectively.

- Estimates based on indicators: About 33, 25 and 29 percent of the production, expenditure and average both sides, respectively, use this method.

4) Professional Judgment (PJ) Method

In some cases, the results of timeliness estimation cannot reflect real economic situations due to the imperfect data or limitations incurred from using the administrative record, especially the revenue declared for VAT evaluation. In effect, compilers need to make some professional judgments based on their experience at the early stage of estimation. Electrical consumption figures, for example, may be taken into account at the detail estimation of the volatile items. The PJ method is crucial in the QGDP estimation even in advanced countries like Singapore.

5) Seasonal Adjustment

QGDP figures are presented not only in the original preliminary series but also in the seasonally adjusted form. Seasonally adjusted figures can reflect the real changes in production and expenditure in each quarter since seasonal effects are removed from the estimates leading to capability to compare between two consecutive quarters.

In practice, the X-12 computer program in which the moving average technique or multiplication is applied to previous 5 quarters performs the seasonal adjustment.

5 Training Needs

In order to strengthen my knowledge and experiences and increase the quality of my own job, particularly the special analysis areas e.g. time series analysis. I would like to propose some ideas that I am interested in and hope that it will be benefit for me and for my office as a whole as follows:

5.1 To study and develop the quarterly indicators, which are used in the quarterly national accounts compilation, to be in line with the actual economic situation e.g. private investment.

5.2 To study the appropriate technique to forecast the economic trend, using QNA or any other relevant indicators. In addition, to study the impact of any special condition, e.g. Oil prices, disaster etc., on economic situation.

Country Report for

"Application of Information and Communication Technology to Production and Dissemination of Official statistics"

10 May – 11 July 2007

Prepared by:
Sombat KITJARUWONG
NESDB
THAILAND

Objectives

- To inform about
  - My country – THAILAND
  - Statistical system in THAILAND
  - My organization & my responsibility

Contents

- Introduction
- Statistical system
- NESDB structure and functions
- My responsibility


THAILAND
Chiang Rai
Doi Ithanon
(2590m)
LAOS
VIETNAM
Chiang Mai
Lampang
Vientiane
MYANMAR
(BURMA)
Gulf of
Tonkin
Mekong River
Yangon
(Rangoon)
Sukhothai
Udon
Thani
Mae Sot
0 200 km
0 120 miles
Ayuthaya
Prasat Hin Khao
Phanom Rung Historical Park
Nakhon Pathom
Chachoengsao
Bangkok
Si Racha
Ko Si Chang
CAMBODIA
Andaman
Sea
Ko
Samet
Phnom
Penh
VIETNAM
Gulf of
Thailand
Ho Chi Minh
City (Saigon)
Ko Pha-Ngan
Ko Samui
INDIAN
OCEAN
Phuket
Krabi
Songkhla
Thaleh Ban National Park
Hat Yai
MALAYSIA

INTRODUCTION

- Location - SE Asia
- Area - 513,115 sq.km.
- Pop. - 63 millions
- Capital city - Bangkok
- Economy - GDP 7,080,660 millions Baht (1$=34 Baht)
- Famous Travel place - Chaing Mai, Phuket

Statistical system in Thailand.

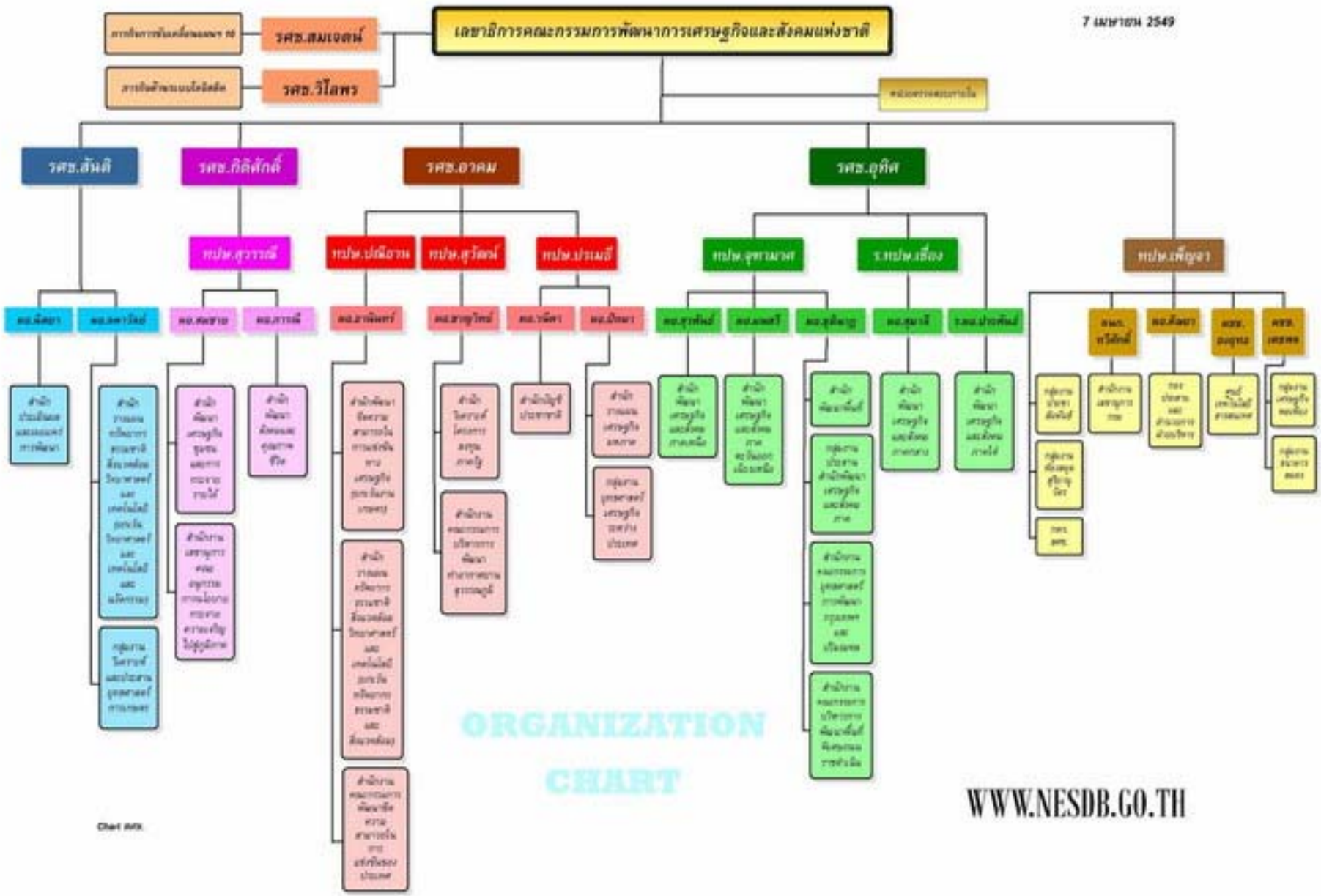
- National Statistic Office
  - Centralized Statistical System
  - Decentralized Statistical System

The Office of National Economic and Social Development Board (NESDB)

- Background
  - Established by the World Bank recommendations in 1950
- Structure
  - NESDB Office (13 Offices)
  - Staff 560 persons

NESDB *(contd.)*

- Functions.
  - Formulating the National Economic and Social Development Plan
  - Provide recommendations to the Prime Minister
  - Creating a national accounts statistic for planning
  - Etc.


7 เมษายน 2549
เลขาธิการคณะกรรมการพัฒนาการเศรษฐกิจและสังคมแห่งชาติ
รศช.สมเจตน์
รศช.วิโรฒ
รศช.สันติ
รศช.กิติศักดิ์
รศช.อาคม
รศช.อุทิศ
ทปษ.สุวรรณี
ทปษ.ปกิตถาน
ทปษ.สุวัตน์
ทปษ.ประเมธี
ทปษ.พุทธมาศ
ร.ทปษ.เรือง
ทปษ.เพ็ญจา
ORGANIZATION
CHART
WWW.NESDB.GO.TH

MY RESPONSIBILITY

- Capital Account and Balance Sheet Section in the National Accounts Office (NAO)
  - Compile and analyze NA statistics on the expenditure side (Gross Fixed Capital Formation)
  - Compile and analyze capital stock

Publications

- Quarterly

- Annually

http://www.nesdb.go.th/

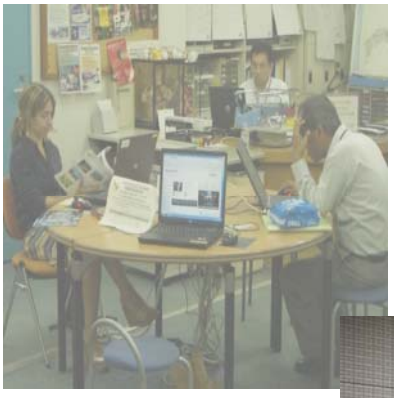
ICT in NESDB

- Under IT Section
  - Hardware
    - PC computer
    - Server and LANs
  - Software
    - OS – Windows XP
    - Application – MS Office, PDF Acrobat, Customized Software

Planning cannot be successful
if
you don’t have
data and information.

เอกสารแนบ 2

THE USE OF ICT FACILITTIES IN TIC

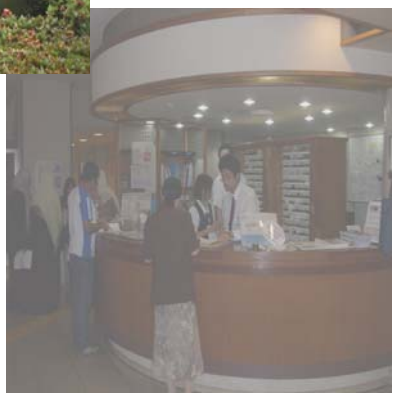


COMPUTER

TELEVISION

TELEPHONE

INFORMATIO
N



Uyizeye Didier (Rwanda)
Sombat Kitjaruwong (Thailand)
Mareta Katu (Cook Islands)
Phongvilay Muongvong (Lao PDR)
Bidhan Baral (Bangladesh)

Third Group Training Course in Application of Information and Communication Technology to Production and Dissemination of Official Statistics

May 10 – July 11, 2007
UNSIAP, Chiba, Japan

THE USE OF ICT FACILITTIES IN TIC

Submitted by

Uyizeye Didier (Rwanda)
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1 Acknowledgement

The participants of the Third Group Training Course in Application of Information Communication and Technology in Production and dissemination of Official Statistics especially the first group members has conducted a survey as a course requirement in collaboration with the United Nations Institute for Asia and the Pacific (UNSIAP) and Japan International Cooperation Agency (JICA).

The main objective of the survey was to gain hands-on experience on how to design, arrange and conduct a survey and another objective was to collect data, analyze and disseminate the results relating to the ICT facilities for JICA participants staying in TIC.

I take this opportunity to express my sincere thanks to all my fellow group members who have contributed greatly from the beginning to the end of the survey project with their hard work, devotion and expertise.

Also we would like to extend our sincere gratitude to the SIAP lecturer **Dr. M.Q. Hasan** for providing his effective guidance and support to the success of this activity with his professional and technical skills and knowledge.

Special thanks to **Mr. Watanabe**, Deputy Director, the other Lecturers, **Ms. Noriko Fukuda**, Course Coordinator, **Ms. N.N. Thein**, Technical Assistant, **Ms. Ishihara**, Librarian who provided us their full support for the completion of our survey.

Finally, we would like to express our profound regards and deep sense of gratitude to the Director **Ms. Davaasuren Chultemjamts**, UNSIAP and Director General, JICA for their technical support during the implementation of the project.

1st Group Members

2 Introductions

In Order to strengthen the Capacity of National Statistics Office, The United Nations Statistical Institute for Asia and the Pacific (UNSIAP) regularly conducts practical-oriented training programs for statisticians of the developing countries.

I) Background of the project:

The survey on the use of ICT facilities in TIC-2007 is a compulsory course assignment for the participants of Third Group Training Course on Information and Communication Technology in Production and Dissemination of Official Statistics. This course is conducted by United Nation Statistical Institute for Asia and Pacific (UNSIAP). Participants are instructed to conduct such type of survey to be acquainted with collection of data, processing, analyzing and disseminating data using Information and Communication Techniques so that they can be more efficient in doing duties in their National Statistical Organizations. The findings of this survey can not be used as usable data and treated as done only as learning process.

II) Objectives of the project:

There are many objectives of this survey prominent of which are given as follows;

I) To be acquainted with survey design

II) To be acquainted with data collections, data entry, processing and dissemination

III) To be familiar computer software, how to use it in survey or censuses and process data and disseminate.

IV) To develop the skill in dissemination using ICT techniques.

V) To be capable to guide the people in all type of statistical work.

III) Importance of the project paper

In the ICT Course of SIAP, lectures are given to teach how to process data after collection through using different software and finally how to disseminate it. It is also approached to teach the participants about data management, data mining and publishing in website etc. Through publishing in website information becomes very easy to get from any place of the world. So conducting a survey practically becomes very helpful. They can learn about collection of data, processing and dissemination after doing these with their own hands. In this consideration project paper preparation and presentation is indispensable for the participants of ICT course.

3 Survey Procedures

To conduct the survey, along with data collection, data entry, data processing and disseminations were to be done strictly.

I) Survey design:

While designing the survey the group members had to conduct series of meetings to take important decisions about the survey topic, sample size, questionnaire, method of interview for data collection, data editing and cleaning, coding, data entry, data processing, data dissemination etc.

At the time of conducting these meetings all group members is present 100%. Through these meeting it was taken 33 TIC participants as simple random sample. It was assumed that 33 persons will be closer to 10% can be considered as representative **sample size.**

Total no. of participants in TIC	Sample size	Percentage
350	**33**	**9.4 %**

At the time of sample design we had to consider the following aspects;

1. Availability of time
2. Population size (universe)
3. Total manpower (group members)
4. Number of Questionnaires, etc.

Other than these we had to take into consideration as **Sampling Error.** As we had to conduct the survey under so many constraints there might be some sampling error in sampling design. We know that as the sample size increases the sampling error decreases. So we could avoid under coverage if there were no constraints.

II) Pre testing

Before going to conduct the final survey we had to prepare the draft questionnaire and conduct a pilot survey to assess the consistency in the sequence of questions, interviewing time and other related feasibilities as part to finalize the questionnaire. After we analyzed all discrepancies and prepared the final questionnaire.

III) Final survey design & planning

After series of meeting among the group members and after holding the pilot survey the final questionnaire was accepted by all and then every member got ready to conduct the survey. At this stage planning for all activities was done. Later on all operations were completed as it was decided in action plan.

4 Data Collection

After getting the final questionnaire on hand we started data collection. All the participants participated in data collection procedure. We used CAPI and PAPI method as data collection. We started collecting data on June 20, 2007 and completed on June 22, 2007.

I) Methods

CAPI Methods: Through adoption this method we collected data. It is an application programming interface standard used to access ISDN equipment connected to basic rate interfaces (BRI) and primary rate interfaces (PRI).

PAPI Method: This means paper assisted personal interviewing. We are to fill up the questionnaire trough paper and pencil and then entered into the computer.

For the purpose of data collection we used 23 questions in the questionnaire having 50 **Variables.** The **questionnaire** ***(see in appendix)*** is as follows; for assisting the respondents for better understanding of the relevant answer we provided this **manual** ***(see in appendix)***.

II) Problems faced in data collections:

In the time of data collection, we faced some small problems. After selecting the sample room numbers, some participants left TIC. We replaced them with others in TIC.

5 Data Entry and Compilation

After completion of data collection we discussed about the entry procedure with certain manner. We decided to use CSPro software for its user friendly features. For data entry we followed the stages shown below.

I) Data editing and coding:

After getting the collected raw data we edited and cleaned the data. We tried to find out some unintentional mistakes and edited. We were successful in our work.

II) Data coding:

At this stage we did coding especially for open ended questions.

III) Data file construction:

After coding we started to construct and name data files which we had to use for data entry, compilation, and tabulation for all matters.

IV) Data entry and Compilation:

After constructing the data entry form we entered data using **CAPI** and **PAPI**. We completed successfully data compilation and prepared tables, cross tables and graphs by STATA and MS Excel.

During the time of data compilation, we faced some problems. After entering the data using CSPro 3.2 Application, we exported the data file to STATA file and compiling the data. We face that it is difficult to remember the special commands and how to tabulate complexly because we did not have enough experience. Then during compiling, we always use the STATA text.

6 Results/Findings

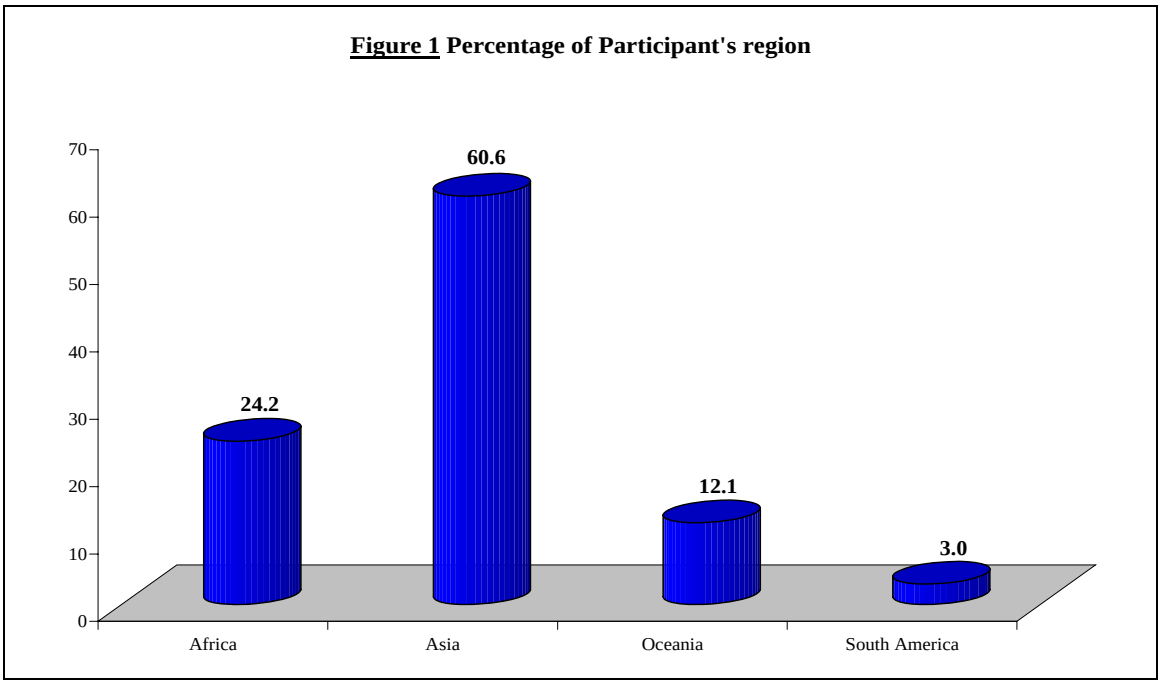
In this section we accomplish data analysis under (**a)** Findings at a Glance, **(b)** List of Tables and **(c)** List of Graphs

Region

It shows in the table below that out of 33 participants 60.6% is from Asia and 24.2% is from Africa. The remaining 12.1% and 3.0% are from Oceania and South America respectively.

Table 1 Region

Region	Number	%
Africa	8	24.2
Asia	20	60.6
Oceania	4	12.1
South America	1	3.0
Total	**33**	**100.0**



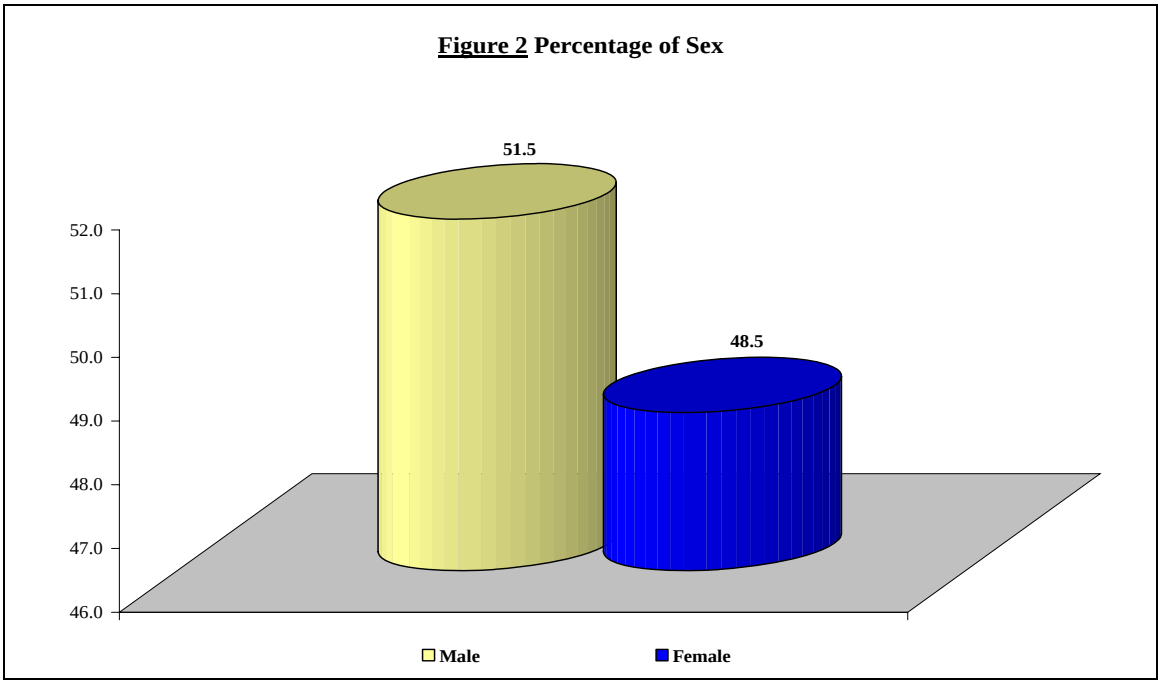
Sex

The table shows that there is a significant trend between the 2 sexes out of the 33 participants interviewed. There is a marginal difference between the participation of male (51.5%) and female (48.5%).

Table 2 Sex

Sex	Number	%
Male	17	51.5
Female	16	48.5
Total	**33**	**100.0**

Figure 2 Percentage of Sex



Age

It is shown in the table that for Age class it is seen that the ages of 33 participants is between the age of 26 – 49yrs. Of which participants attaining 38 years old are the highest 7 persons (21.2%). Participants of age 27, 34 and 37 years are the second highest in this age group.

Table 3 Age

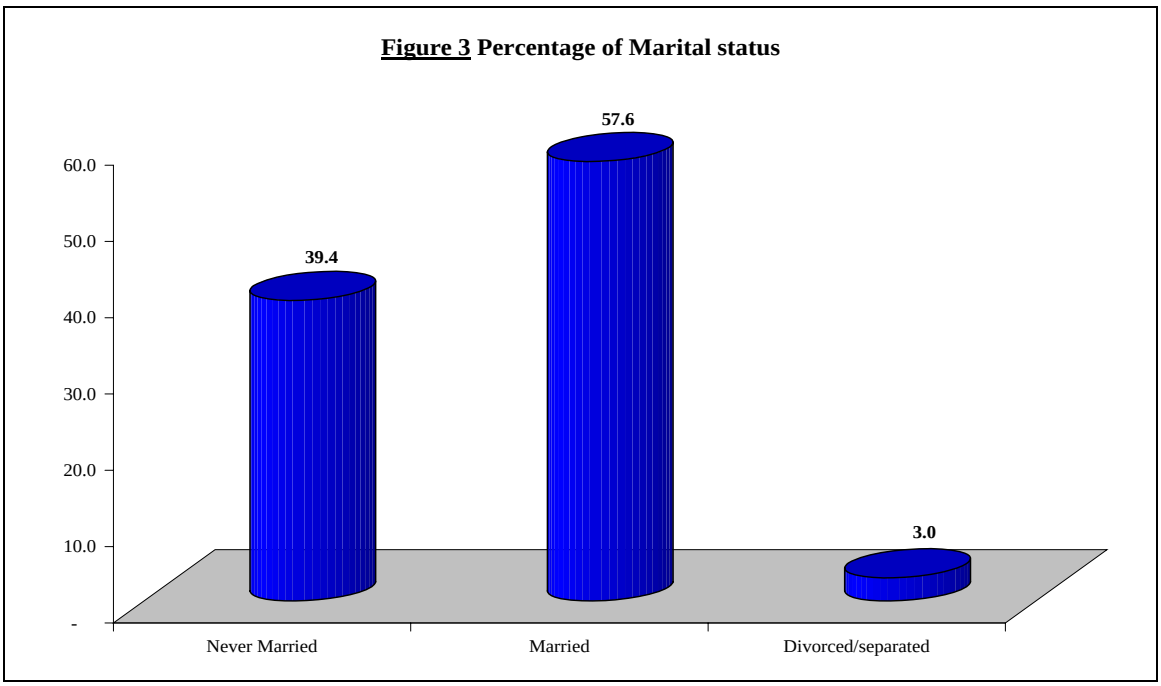
Age	Number	%
26	2	6.06
27	3	9.09
28	1	3.03
29	2	6.06
30	1	3.03
31	1	3.03
32	1	3.03
33	1	3.03
34	3	9.09
35	1	3.03
36	1	3.03
37	3	9.09
38	7	21.21
39	1	3.03
40	2	6.06
41	1	3.03
44	1	3.03
49	1	3.03
Total	**33**	**100**

Marital status

In the table for marital status it is significant that the share is prominent for both married 57.6% and unmarried 39.4% persons amongst the 33 participants with a single case recorded as divorced or separated. It implies that the newly entrants in the services are importing training as well as mid level officials in many countries.

Table 4 Marital status

Marital status	Number	%
Never Married	13	39.4
Married	19	57.6
Divorced/separated	1	3.0
Total	**33**	**100.0**



Education

In the table describes the Education status of the participants 63.6% with Master's Degree and 21.2% with Bachelor's degree. The remaining 3.0% has PhD and 12.1% with others.

Table 5 Education

Education	Number	%
Bachelor degree	7	21.2
Master degree	21	63.6
Doctoral degree	1	3.0
Others	4	12.1
Total	**33**	**100.0**

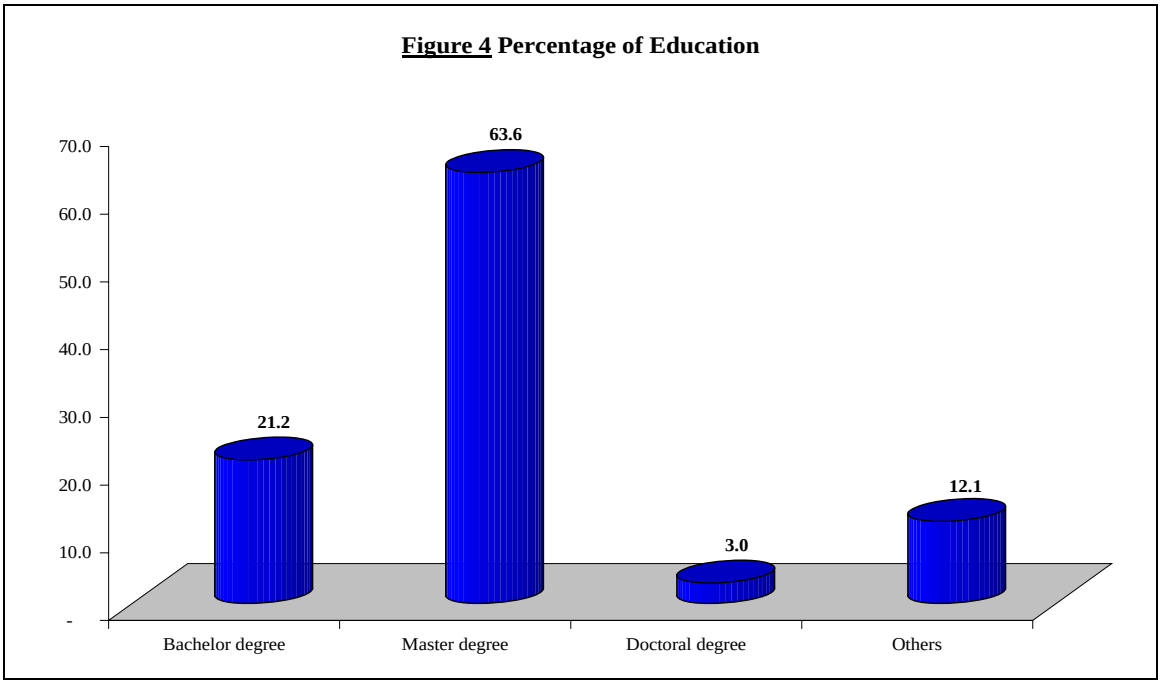


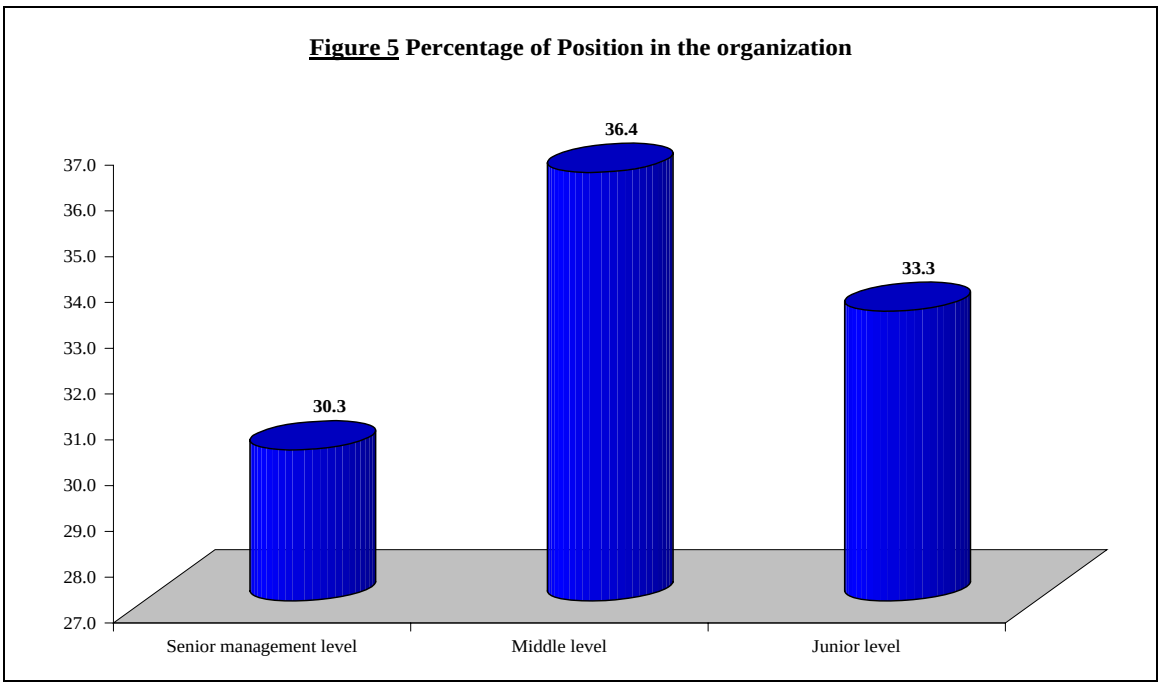
Figure 4 Percentage of Education

Position in the organization

The table has shown 10 participants with senior level positions at 30.3% and 12 participants with middle level positions at 36.4%. 11 participants with junior level positions at 33.3%. Therefore the majority holding these positions in perspective organizations are middle level positions.

Table 6 Position in the organization

Position	Number	%
Senior management level	10	30.3
Middle level	12	36.4
Junior level	11	33.3
Total	**33**	**100.0**

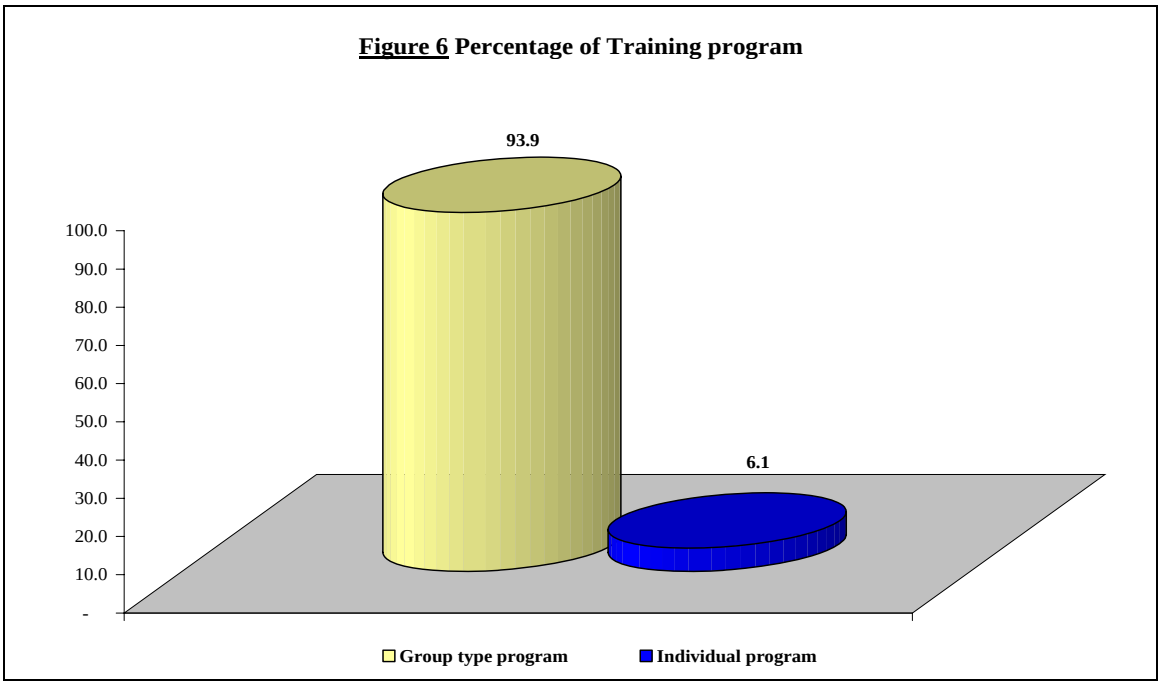


Type of training program

The table shows that there are more participants attending group training courses here in Japan with 93.9%. Therefore those attending the individual programs only 6.1%.

Table 7 Type of training program

Type of program	Number	%
Group type program	31	93.9
Individual program	2	6.1
Total	**33**	**100.0**

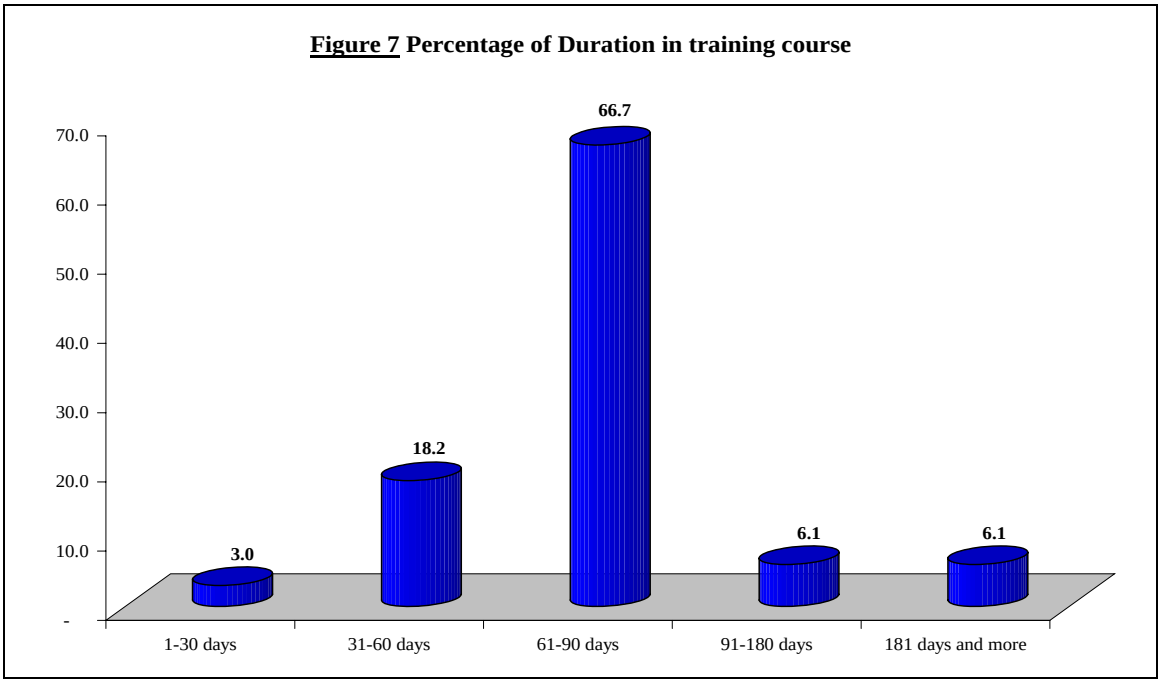


Duration of training course

It is observed in the table that 66.7% of the trainees are participating in the course extended between 61 to 90 days. 18.2% of the trainees are participating in the course between 31 – 60 days.

Table 8 Duration of training course

Duration	Number	%
1-30 days	1	3.0
31-60 days	6	18.2
61-90 days	22	66.7
91-180 days	2	6.1
181 days and more	2	6.1
Total	**33**	**100.0**



Type of ICT usage in your course

In the table 69.7% participants are able to use computer/Laptops in their rooms and 30.3% use the computer/laptop in the computer room in TIC. It is also seen that 81.8% don't use internet in TIC while only 18.2% use the internet.

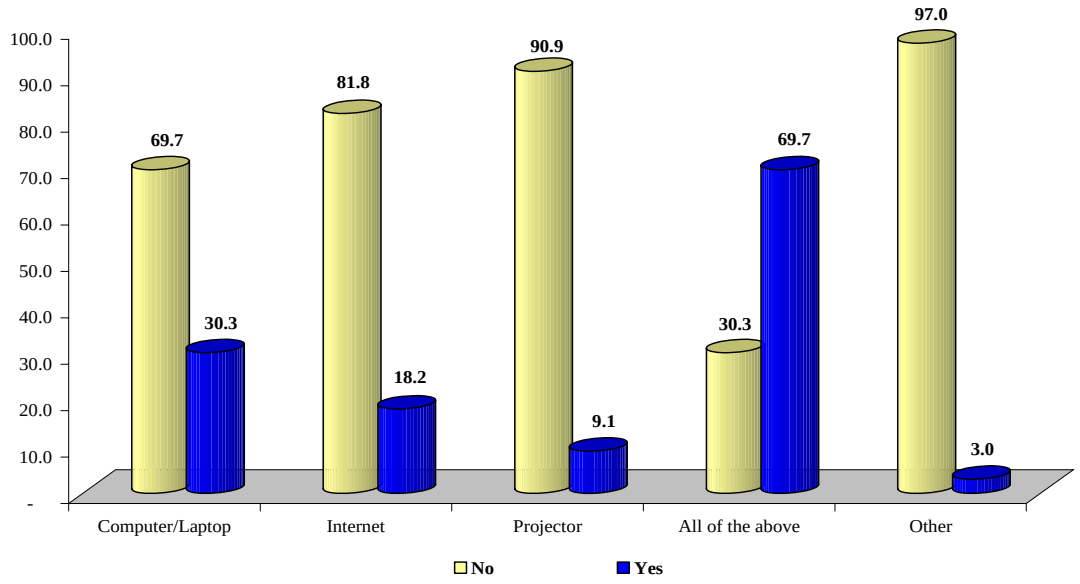
In case of use of projector maximum 90.9%of the participants do not use the projector in their Courses while the remaining 9.1% uses projectors during the courses.

While giving their opinion regarding the use of other facilities in lecture room 97.0% negatively said anything and 0nly 3% told about the use of other facilities.

Table 9 Type of ICT usage in your course

ICT Usage	Number	%
Computer/Laptop		
No	23	69.7
Yes	10	30.3
Total	33	100.0
Internet		
No	27	81.8
Yes	6	18.2
Total	33	100.0
Projector		
No	30	90.9
Yes	3	9.1
Total	33	100.0
All of the above		
No	10	30.3
Yes	23	69.7
Total	33	100.0
Other		
No	32	97.0
Yes	1	3.0
Total	33	100.0

Figure 8 Percentage of ICT usage in your course



Computer and internet usage in TIC

In the table it is found that all participants use computer and internet facilities in their own rooms. The use of computer in room and internet are perfectly positively correlated.

Table 10 Computer and internet usage in TIC

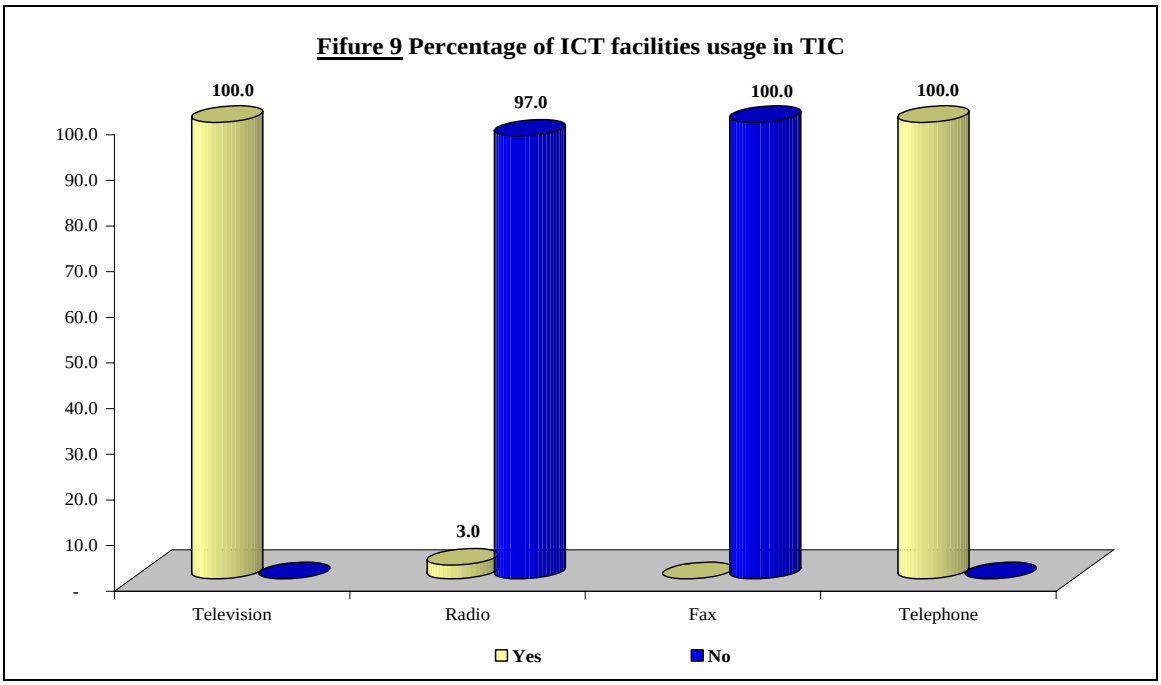
Usage	Number	%
Computer usage		
Yes	33	100.0
Total	33	100.0
Internet usage		
Yes	33	100.0
Total	33	100.0

ICT facilities usage in TIC

In the table describing the use of Television, Radio, Fax and Telephone in TIC, 100% of the participants watch Television, the use of Fax machine and Telephone. On the contrary 3% listens to radio in TIC.

Table 11 ICT facilities usage in TIC

ICT facilities	Number	%
Television		
Yes	33	100.0
Total	33	100.0
Radio		
Yes	1	3.0
No	32	97.0
Total	33	100.0
Fax		
No	33	100.0
Total	33	100.0
Telephone		
Yes	33	100.0
Total	33	100.0



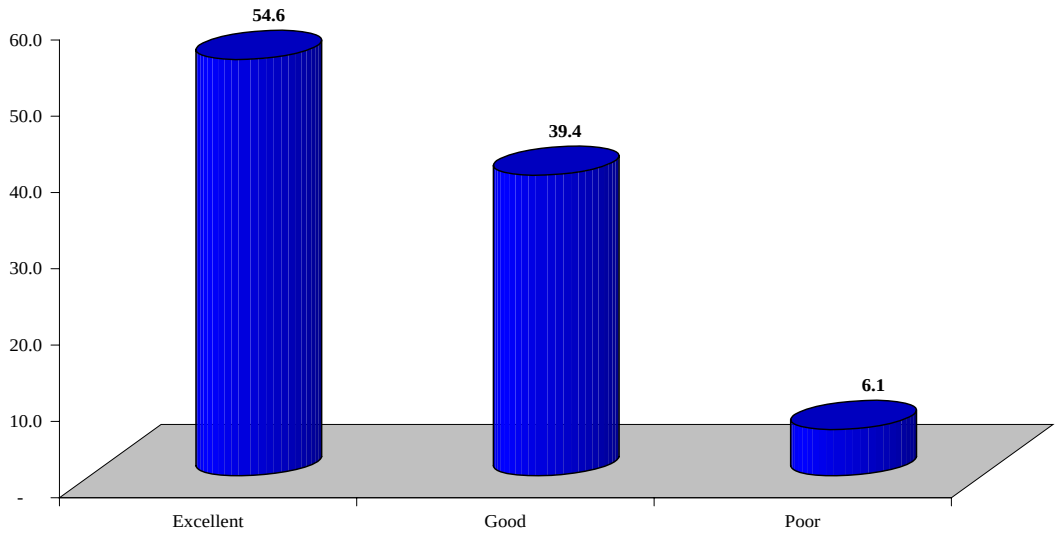
The communication using telephone when you receive a call

The service quality of Front desk for conveying external telephone calls is assessed. Out of the total 33 participants 54.6% say is “Excellent” while 39.4 % say is good. The remaining 6.1% say it’s poor.

Table 12 The communication using telephone when you receive a call

	Number	%
Excellent	18	54.6
Good	13	39.4
Poor	2	6.1
Total	**33**	**100.0**

Figure 10 Percentage of The communication using telephone when you receive a call



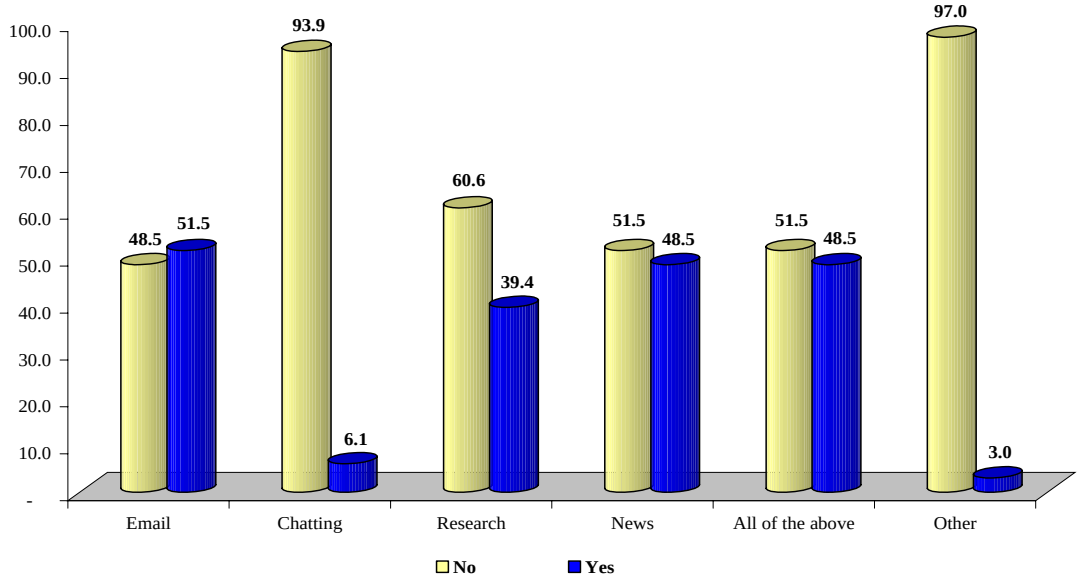
Internet usage

In this table it shows the objectives and the use of internet, 51.5% use Email, 6.1% chatting, 39.4% Doing Research and 48.5% read News and 3.0% for other purposes. The remaining participants do not use it for these four purposes. However 48.5% use internet for all these four purposes.

Table 13 Internet usage

Internet usage	Number	%
Email		
No	16	48.5
Yes	17	51.5
Total	33	100.0
Chatting		
No	31	93.9
Yes	2	6.1
Total	33	100.0
Research		
No	20	60.6
Yes	13	39.4
Total	33	100.0
News		
No	17	51.5
Yes	16	48.5
Total	33	100.0
All of the above		
No	17	51.5
Yes	16	48.5
Total	33	100.0
Other		
No	32	97.0
Yes	1	3.0
Total	33	100.0

Figure 11 Percentage of Internet usage



Problem during use of internet

In the table, it is shown that the participants facing problems using the internet is 33.3% and those facing no problems with using the internet is 66.7%.

Table 14 Problem during use of internet

	Number	%
Yes	11	33.3
No	22	66.7
Total	**33**	**100.0**

ICT facilities in TIC are enough

The facilities provided by TIC are enough is termed by nearly three fourth (72.7%) of participants while other 27.3% responded negatively were in this table.

Table 15 ICT facilities in TIC are enough

	Number	**%**
Yes	24	72.7
No	9	27.3
Total	**33**	**100.0**

Computer usage in room and computer room

It is shown in the table that how participants use computers in their room or computer room. Therefore we see that 100% of the participants use computers in the computer room and 93.9% use computers in their rooms.

Table 16 Computer usage in room and computer room

	Number	%
In room		
Yes	31	93.9
No	2	6.1
Total	33	100.0
In computer		
Yes	2	100.0
Total	2	100.0

Problem in computer room

In the table every participants feel about the insufficient number of computers in the computer room. It is found that 50% find problems in the computer room, while the other 50% do not find any problems in the computer room.

Table 17 Problem in computer room

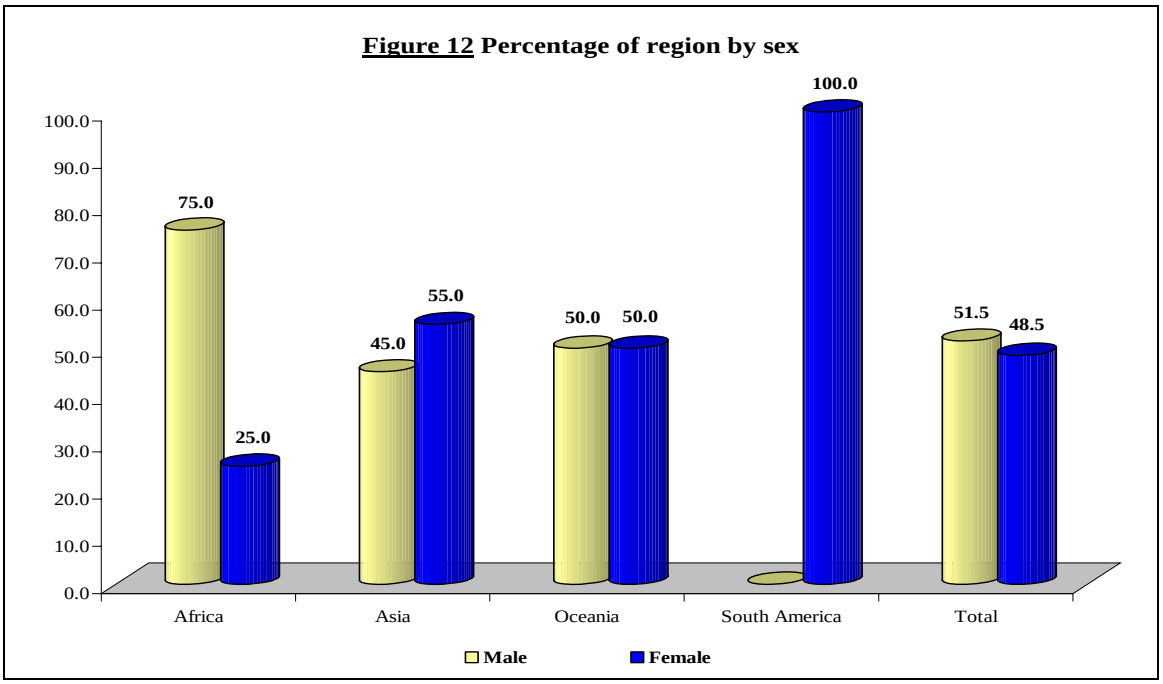
	Number	%
Computer enough		
No	2	100.0
Total	2	100.0
Problem in Computer room		
Yes	1	50.0
No	1	50.0
Total	2	100.0

Region by sex

In the table shows the gender distribution of participants among four continents, Africa, Asia, Oceania and South America. In South America highest 100% female participants join out of 33 while 75% male from Africa. On the contrary no male participants from South America were found among respondent and 25% female from Africa which is the lowest.

Table 18 Region by sex

Region		Sex		
		Male	Female	Total
Africa		6	2	8
	%	75.0	25.0	100.0
Asia		9	11	20
	%	45.0	55.0	100.0
Oceania		2	2	4
	%	50.0	50.0	100.0
South America		0	1	1
	%	0.0	100.0	100.0
Total		17	16	33
	%	51.5	48.5	100.0

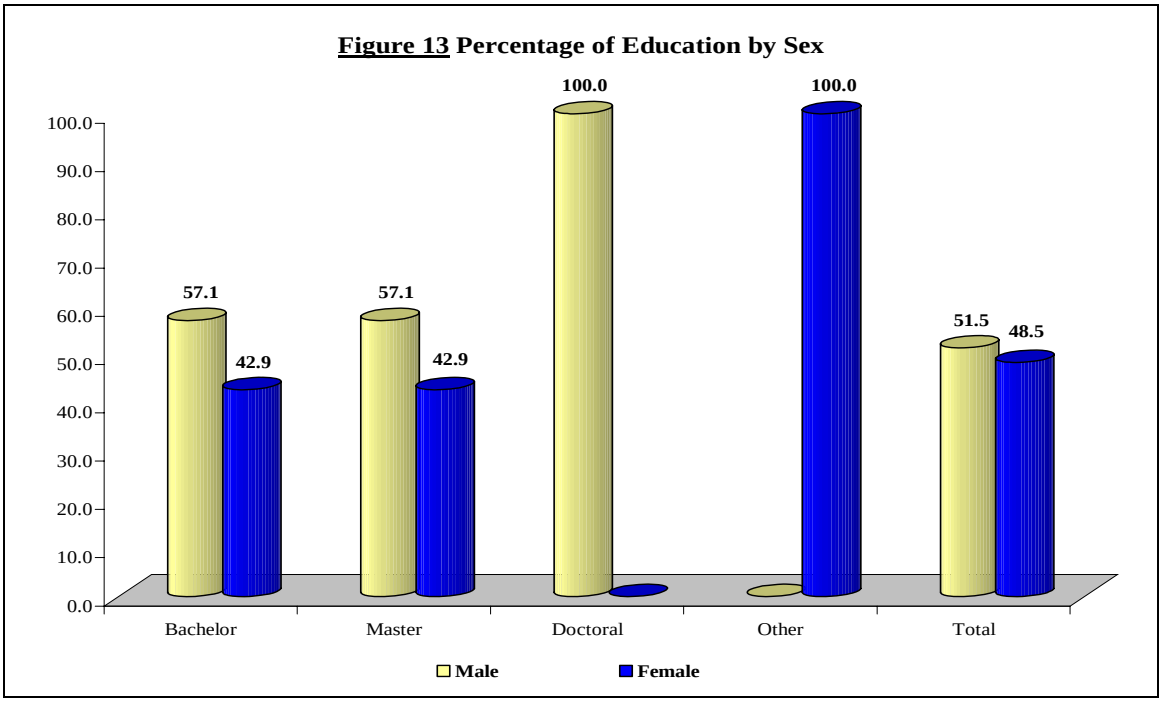


Education by sex

In this table it is observed that 100% participants attain doctoral degree lying in this academic degree. However the percentage if male and female are 57.1% and 49.9% for both bachelor and masters degree. All participants are female having other degrees.

Table 19 Education by sex

Education		Sex		
		Male	Female	Total
Bachelor degree		4	3	7
	%	57.1	42.9	100.0
Master degree		12	9	21
	%	57.1	42.9	100.0
Doctoral degree		1	0	1
	%	100.0	0.0	100.0
Other		0	4	4
	%	0.0	100.0	100.0
Total		17	16	33
	%	51.5	48.5	100.0

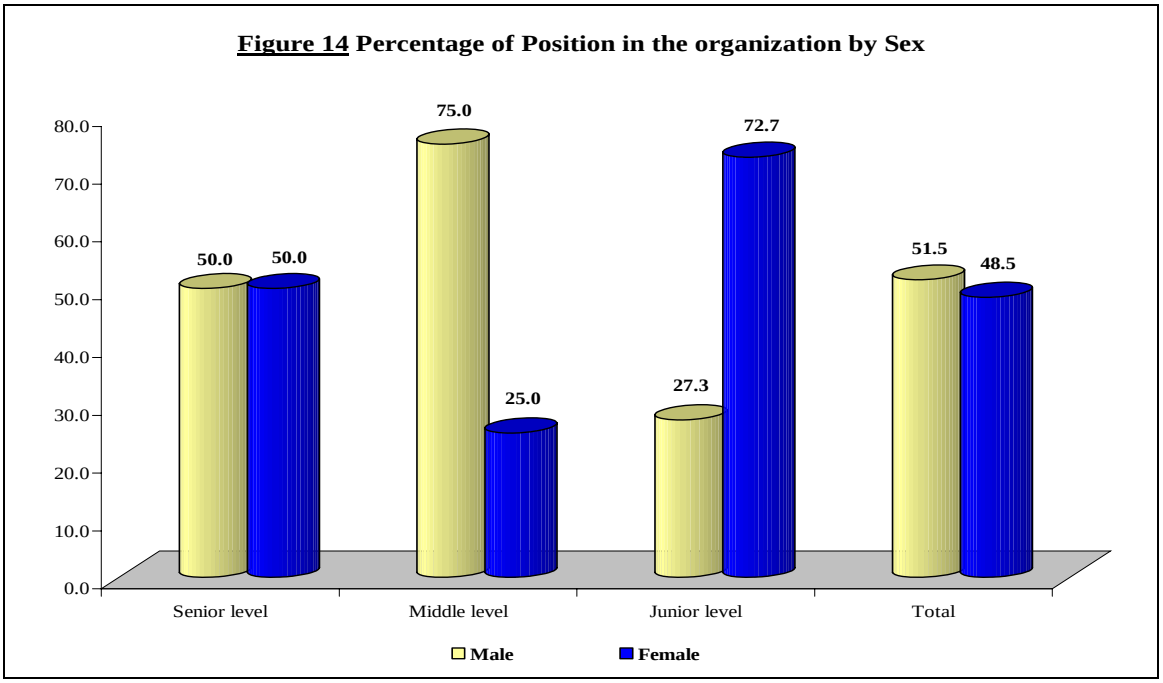


Position in the organization by sex

In the table below shows the highest of 75% male belongs to middle level management while 25% are females working in the middle level. However for senior level management, the shares for male and female are equal. Females are higher by 72.7% in junior level management than male 27.3%.

Table 20 Position in the organization by sex

Position		Sex		
		Male	Female	Total
Senior management level		5	5	10
	%	50.0	50.0	100.0
Middle level		9	3	12
	%	75.0	25.0	100.0
Junior level		3	8	11
	%	27.3	72.7	100.0
Total		17	16	33
	%	51.5	48.5	100.0



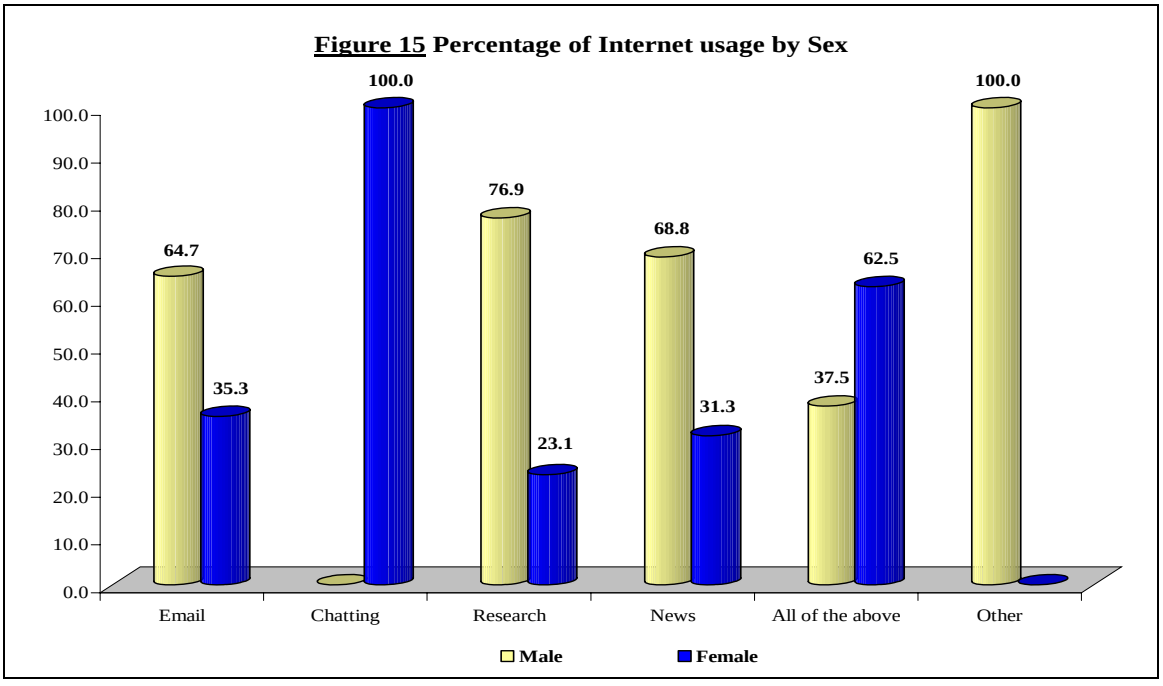
Internet usage by sex

In the table below shows the use of internet by male and female are shown. It is found that uses of email, chatting, research, news, all of them and other by the male participants are 64.7%, 0.0%, 76.9%, 68.8% and 37.5% respectively.

On the other hand, female participants use these facilities for 35.3%, 100%, 23.1%, 31.3% and 62.5% respectively.

Table 21 Internet usage by sex

Internet usage		Sex		
		Male	Female	Total
Email		11	6	17
	%	64.7	35.3	100.0
Chatting		0	2	2
	%	0.0	100.0	100.0
Research		10	3	13
	%	76.9	23.1	100.0
News		11	5	16
	%	68.8	31.3	100.0
All of the above		6	10	16
	%	37.5	62.5	100.0
Other		1	0	1
	%	100.0	0.0	100.0

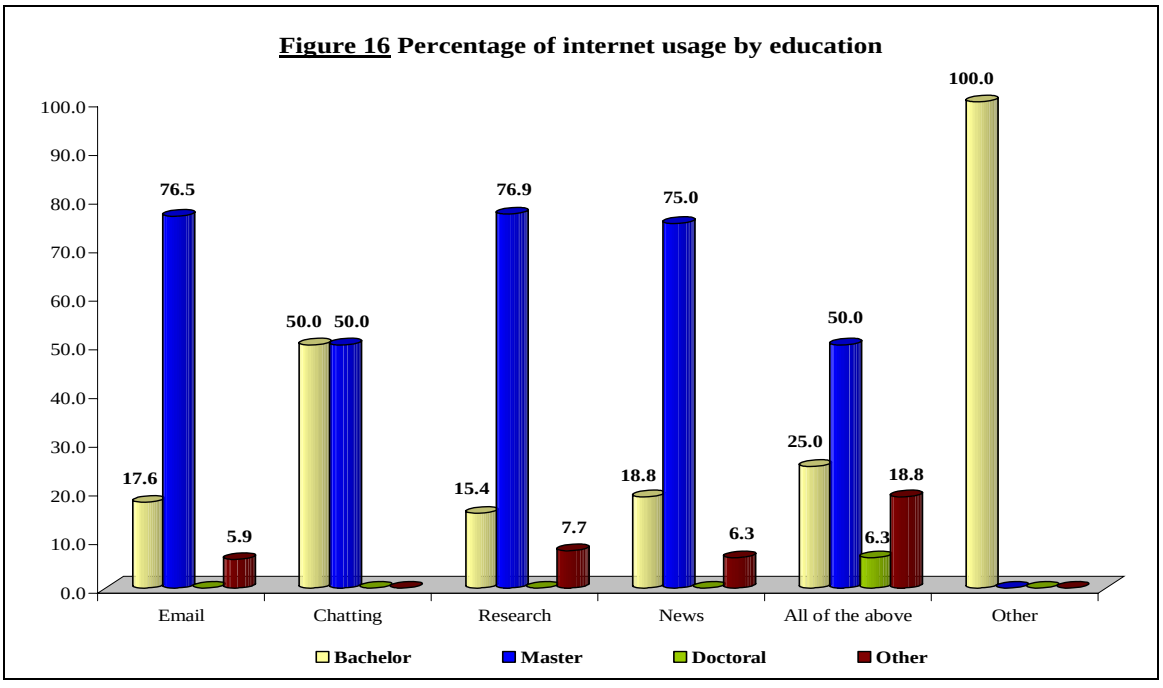


Internet usage by education

In the below shows the relation among the educational level and the use of those facilities like use of email, online chatting, research, news, all of them and other. We see that the bachelor degree holder using 17.6%, 50.0%, 15.4%, 18.8% and 25% of these facilities while the masters degree holders using these facilities by 76.5%, 50.0%, 56.9%, 75.0% and 50.0% respectively.

Table 22 Internet usage by education

Internet usage		Education				
		Bachelor	Master	Doctoral	Other	Total
Email		3	13	0	1	17
	%	17.6	76.5	0.0	5.9	100.0
Chatting		1	1	0	0	2
	%	50.0	50.0	0.0	0.0	100.0
Research		2	10	0	1	13
	%	15.4	76.9	0.0	7.7	100.0
News		3	12	0	1	16
	%	18.8	75.0	0.0	6.3	100.0
All of the above		4	8	1	3	16
	%	25.0	50.0	6.3	18.8	100.0
Other		1	0	0	0	1
	%	100.0	0.0	0.0	0.0	100.0



7 Dissemination

After a long process we arrive at the stage of disseminating data, As you know the dissemination stage is the last stage, and it is the image of your project to the others because it give the result of the project.

I) Methods

To disseminate our data after consultation we decided to publish it on the web site, On CD , in the Report also in some PowerPoint presentation , We use as software Front Page to design our website, Word and PDF files to write our report and Power point as well to present our work

II) Problem faced

Probably when you are doing a work you always face some problems, the problem we faced is when we wanted to build a CDRom containing all data so that we can put data available to every one who want to use it of software because we couldn’t get a software to help us to make a DDI (Data Dictionary In) files in that case we could not create CD with data.

We couldn’t also link our Web site to the data because we couldn’t create dynamic pages.

Appendix

Appendix I

MANNUAL OF THE SURVEY 2007
ON
THE USE OF ICT FACILITTIES IN TIC

Introduction: The survey 2007 on the use of ICT facilities in TIC is a compulsory course assignment for the participants of Third Group training Course on Information and communication Technology in Production and Dissemination of Official Statistics.

This course is conducted by United Nations Statistical Institute for Asia and Pacific (UNSIAP) assisted by JICA. Participants have to conduct such type of survey and to collect data, process, analyze and disseminate using ICT technique are treated only as their learning process with a view to be more efficient in doing jobs in their National Statistical Organizations. The findings of this survey can not be used as usable data and individual's information will not be released. However the set of Questionnaire is supplied to the respondent and are requested them to fill up it. It is highly appreciated to return the filled in Questionnaire as soon as possible.

The procedure or matters to be considered during filling up the questionnaire are delineated in brief in following manner;

A) **Identification:** This is on the first page and the respondent has to fill up left side only the region i.e. the name of the continent (*1.Afirica, 2. Asia, 3.Europe, 4. North America, 5.Oceania, 6. South America*) he or she belongs. It has also to mention the name of the country, TIC room number and his or her name and here it will end first page.

B) Personal Information: In this section there are five questions of which the respondent will make a circle around the number in the box placed left to the appropriate answer. In this section there should be single answer for each question.

C) **Training course profile:** In this section there are also five questions from Q. no-6 to Q. no -10. There should be single answer in Question no. 6, 7, 8, & 9 and there may be multiple answers in question no-10.

D) ICT Status in TIC: In this section it is attempted to know the facilities which the participants are enjoying in Tokyo International Center computer room or participants room as well. There are thirteen questions from Q. number-11 to Q. number-23. It has to be answered single for question number-11, 12, 14, 16, 17, 19, 20, 21 and 22 each after looking the following conditions.

If the answer in Q. number-11 is "No", you have to answer only for Q. number-13 and 14 and then your interview is finished.

There may be multiple answers in Q. number-13, 15, and Q. number-18. In Q. number-18 answers have to be written down in words. It is mentionable ***when the answer of the question-12 is "No" skip question number-15& 16***. ***If the answer to the Q. number-19 is "Yes", finish your interview. Furthermore if the answer to the Q. number-20 is "No", you also finish your interview here.***

We express our heart felt gratitude to you for giving your valuable time and contributing to the aforesaid course. Thank you very much.

Name of the Participants	**Own Country**
1. Uyizeye Didier	Rwanda
2. Sombat Kitjaruwong	Thailand
3. Mareta Katu	Cook Islands
4. Phongvilay Muongvong	Lao PDR
5. Bidhan Baral	Bangladesh

Appendix II

Confidentiality: All Information collected in this Survey will be treated as strictly confidential. Individual information will not be released.

TIC SURVEY 2007
THE USE OF ICT FACLILITIES IN TIC

A) IDENTIFICATION

Identification *(Respondent part)*

Region: _____

Country: _____

Room No: _____

Name of the respondent: _____

Interview Status *(Interviewer's part)*

	Date	Month
Visit	☐☐	☐☐

_____
Name of Interviewer

Code for final visit
Result codes

1 Completed
2 Refusal
3 Others, specify_____

B) PERSONAL INFORMATONS

(Please circle in the box numbered, your correct answer. If necessary you can comment.)

Q. 1 Sex

1 Male
2 Female

Q. 2 Age (Years)

(as of last birthday) _____

Q. 3 Marital Status

1 Never married
2 Married
3 Widowed
4 Divorced/Separated

Q. 4 Highest Level of Education

1 Bachelor degree
2 Master degree
3 Doctoral degree
4 Others, specify _____

Q. 5 What is the Level of your position in the Organization?

1 Senior Management level
2 Middle degree
3 Junior Level
4 Others, specify _____

C) TRAINING COURSE PROFILE

Q. 6 What type of Training program are you attending?

1 Group type program
2 Country-group program
3 Individual program
4 Others specify _____

Q. 7 What is the name of the training course that you are attending?

_____

Q. 8 How long is your training course?

1 1-30 days
2 31-60 days
3 61-90 days
4 91-180 days
5 181 days and more

Q. 9 Have you participated in any course in Japan before?

1 Yes
2 No

Q. 10 What type of ICT do you use in your course?

Multiple choice (circle the correct answer)

1 Computer/Laptop
2 Internet
3 Projector
4 All of the Above
5 Others, specify_____

D) ICT STATUS IN TIC

Q. 11 During your stay in TIC did you use a Computer?

1 Yes
2 No → ***(Skip to Q.13)***

Q. 12 During your stay in TIC did you use the Internet?

1 Yes
2 No

Q. 13 What other ICT facilities did you use in TIC?

	YES	NO
a) Television	1	2
b) Radio	1	2
c) Fax	1	2
d) Telephone	1	2

Q. 14 How do you find the communication using Telephone when you receive a call?

1 Excellent
2 Good
3 Poor *(If the answer of **Q.11** is **No** end of Questionnaire)*

Q. 15 When using the Internet, what sort of Information is used?

(Multiple choice, circle the correct answer.)

1 Email
2 Chatting
3 Reasearch
4 NEWS
5 All of the above
6 Others, specify_____

Q. 16 Did you face any problems during use of Internet?
1 Yes
2 No

Q. 17 Do you think the ICT facilities in TIC, are enough for your course?
1 Yes
2 No

Q. 18 If No, what are some additional ICT facilities do you want in TIC?
_____
_____
_____
_____

Q. 19 Do you use a computer in your Room?
1 Yes → (*The End*)
2 No

Q. 20 Do you use computer in the Computer Room?
1 Yes
2 No → (*The End)*

Q. 21 Is the number of Computers in Computer Rooms Enough?
1 Yes
2 No

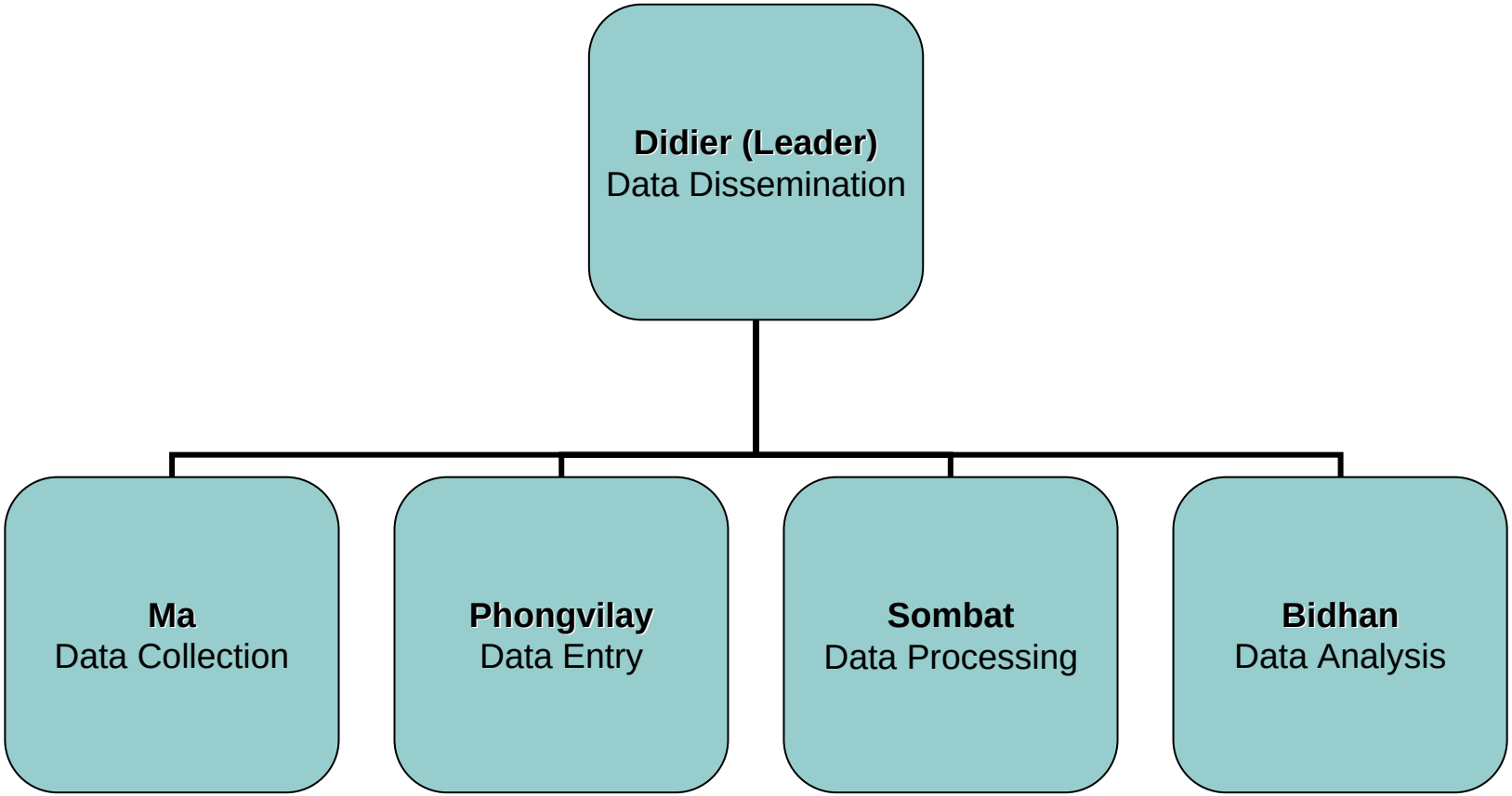
Q. 22 Did you have a problem using a computer in the Computer room?
1 Yes
2 No

Q. 23 If yes, what type of problems you faced _____
_____

Thank you
For your Co-operation


Group 1 BDMPS
Project Work
The Survey on
Use of ICT Facilities
in TIC

Project work Chart



Presentation Sequence

1. Project Work

- Didier *(9 min)*
- Ma *(9 min)*
- Phonvilay *(9 min)*
- Sombat *(9 min)*
- Bidhan *(9 min)*
- Didier *(9 min)*

2. Action Plan

- Ma *(3 min)*
- Phongvilay *(3 min)*
- Sombat *(3 min)*
- Bidhan *(3 min)*
- Didier *(3 min)*

3. Questions & Answers

Contents of Project

- Introduction *(Didier)*
- Data Collection *(Ma)*
- Data Entry *(Phongvilay)*
- Data Processing *(Sombat)*
- Analysis *(Bidhan)*
- Data Dissemination *(Didier)*

Introduction (Didier)

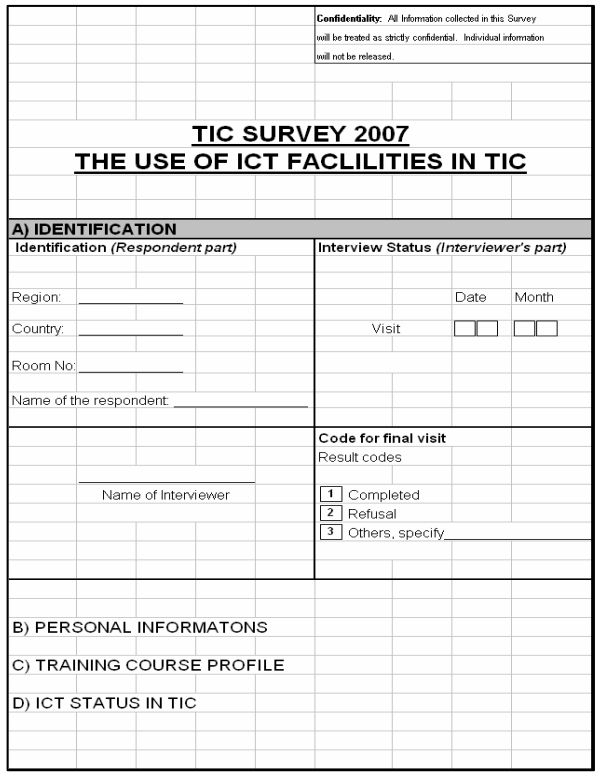
- What?,
- Why?
- How?
- Problems

Data Collection (Ma)

- Confidence
- Final list of Respondents
- Questionnaires & Manual Instructions
- Distribution of Respondents
- Keeping in touch with Team Members
- Collection & checking of Questionnaires

Contribution

- Assisting with my Team Members with their perspective fields.



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TIC SURVEY 2007
THE USE OF ICT FACLILITIES IN TIC

A) IDENTIFICATION

Identification *(Respondent part)*	**Interview Status** *(Interviewer's part)*
Region: _____	Date Month
Country: _____	Visit ☐☐ ☐☐
Room No: _____	
Name of the respondent: _____	
_____ Name of Interviewer	**Code for final visit** Result codes 1 Completed 2 Refusal 3 Others, specify_____

B) PERSONAL INFORMATONS

C) TRAINING COURSE PROFILE

D) ICT STATUS IN TIC

Data Collection (cont'd)

Total no. of participants in TIC	Simple size	Percentage
350	**33**	**9.4 %**

Data Collection (cont'd)

- **Challenges faced:**

  * Time Limited

- **Solution faced:**

  * Getting the questionnaire form filled in during the period of time allocated to get it done.

•**Outcome:** Reliable Data

100% response rate

Knowledge Gained

- How to:
  1. Design Questionnaires
  2. Preparation of Manuals
  3. Conduct an Interview

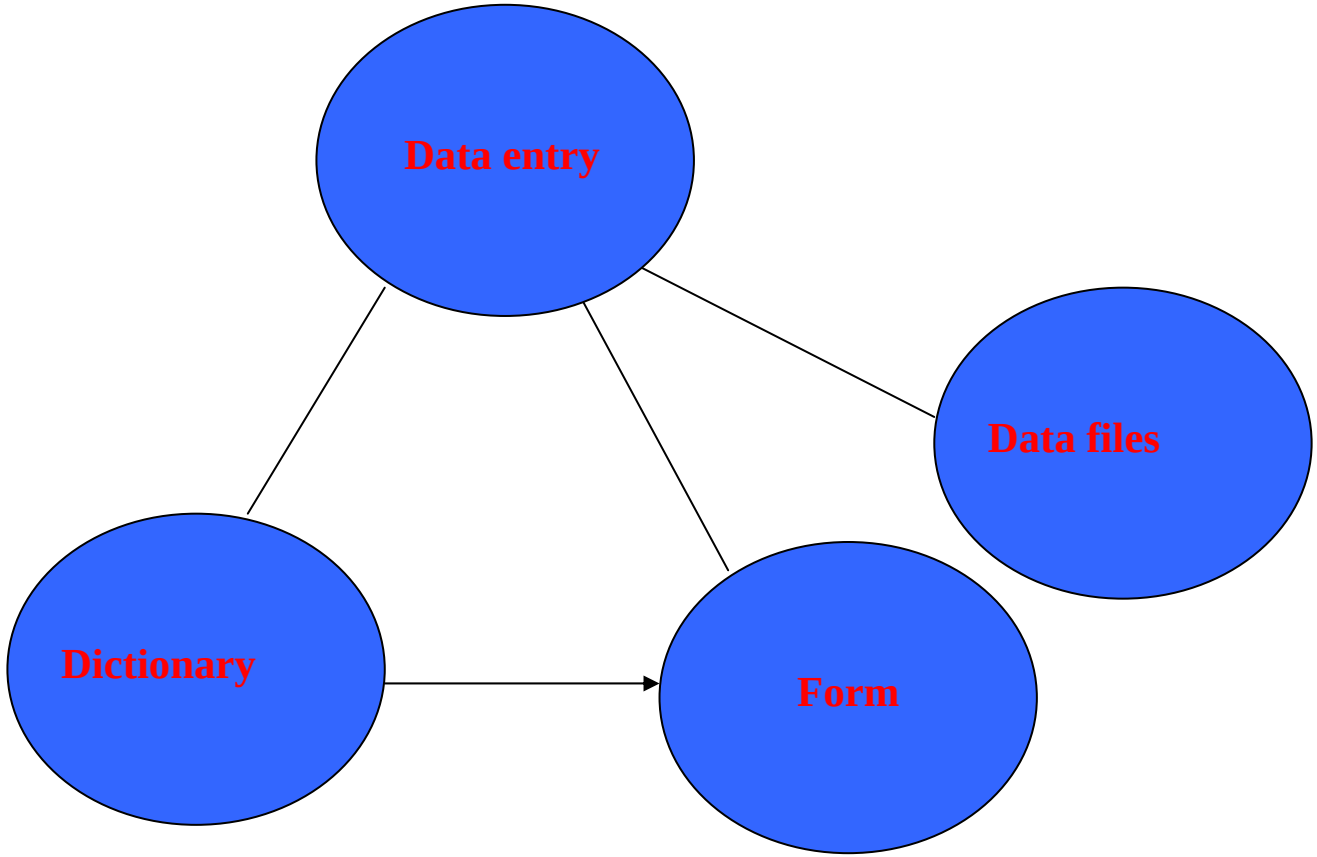
Data Entry (Phongvilay)

- Software Used

CSPro Version 3.2

(Census and Survey Processing system)

CSPro



Data Entry

- How
  1. Create dictionary
  2. Create Form
  3. Pre-test
  4. Data Entry - Use 2 modes: CAPI and PAPI

Dictionary

- Create Identification
- Identify records, variable, items…
- Identify variable label and name
- Type, size of variable

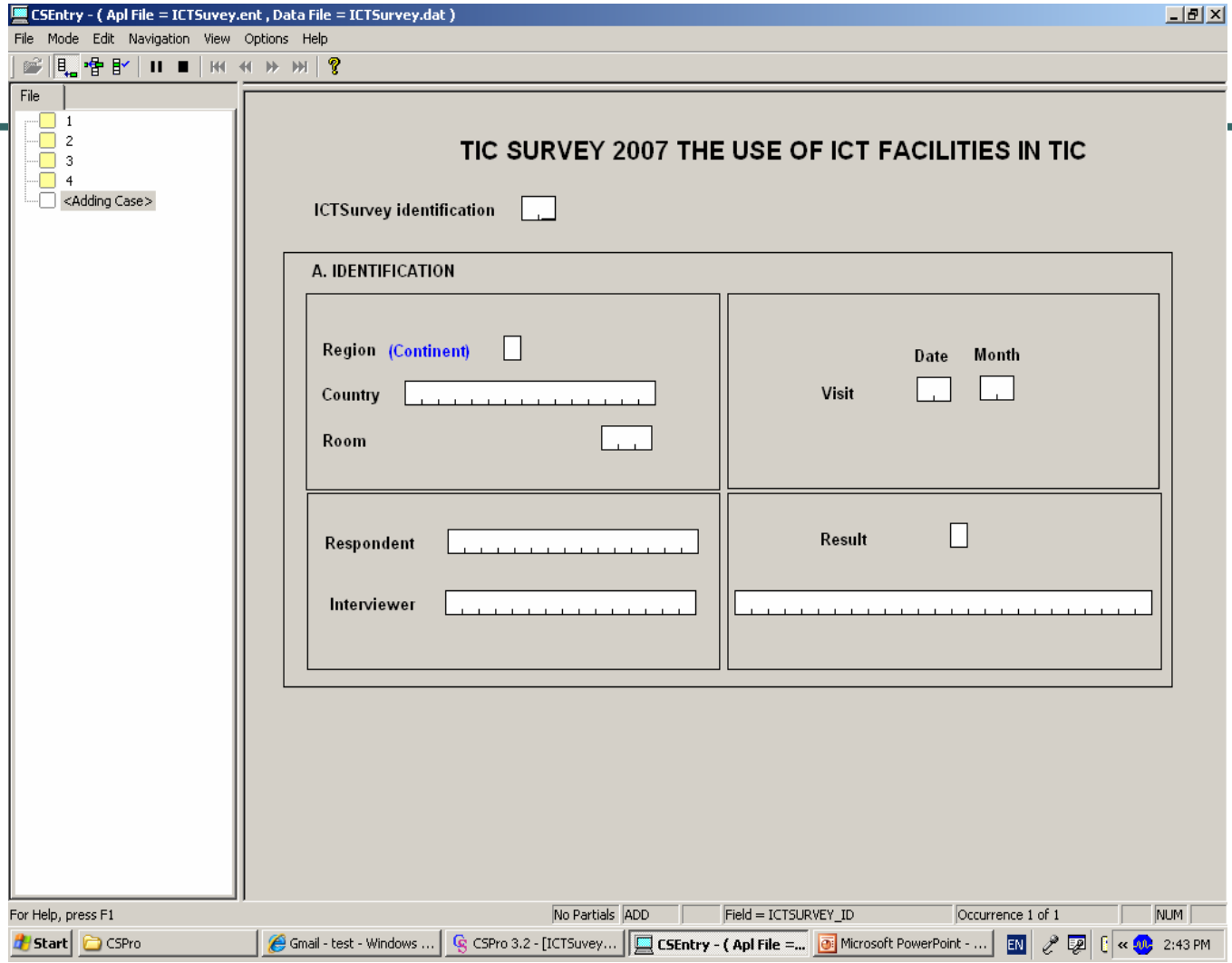
Form

- Drag & drop: text and box
- Properties and options
- Logic

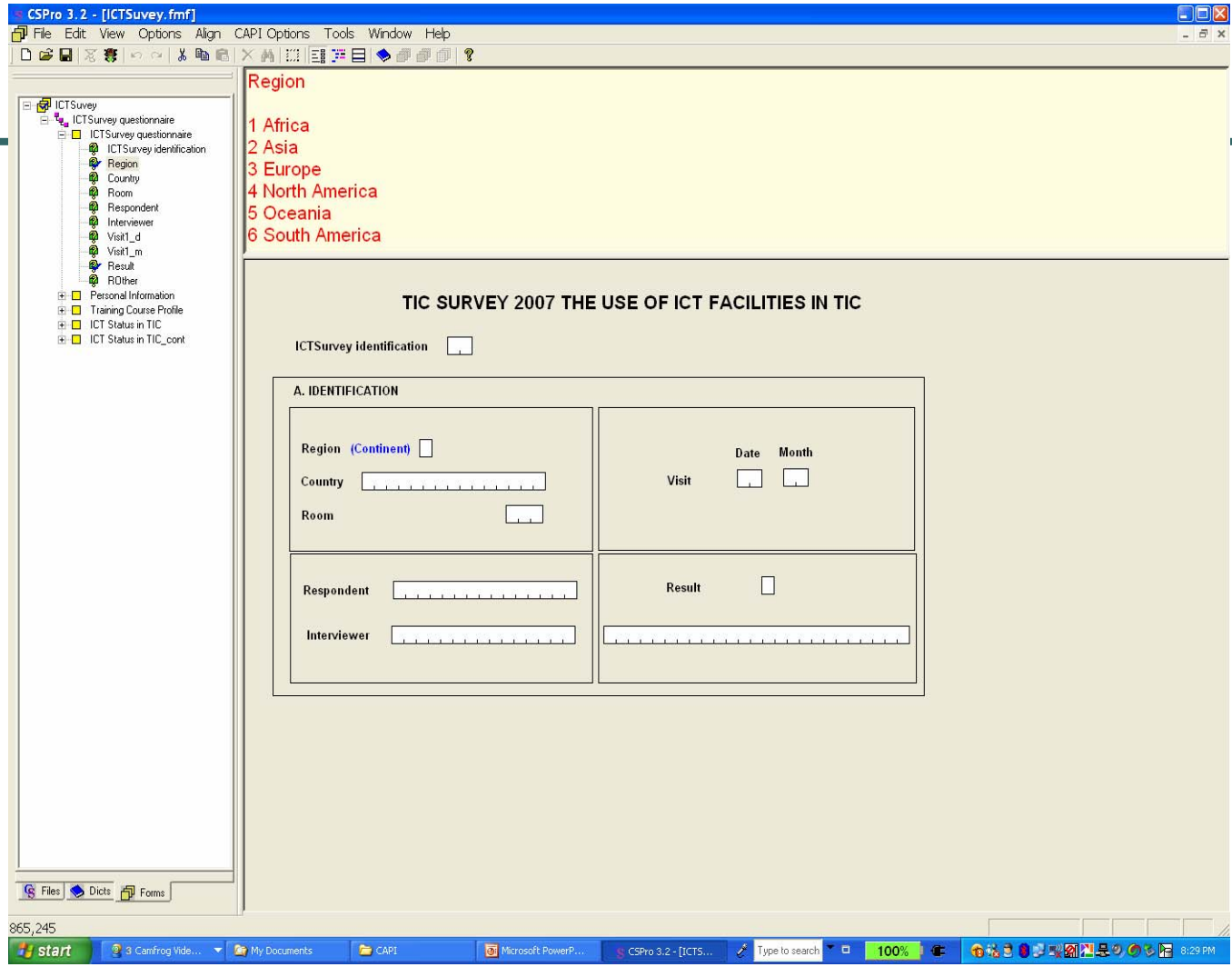
Pre-test

- Running
- Entering data
- Checking data files

PAPI mode


CSEntry - (Apl File = ICTSuvey.ent , Data File = ICTSurvey.dat)
File Mode Edit Navigation View Options Help
File
1
2
3
4
<Adding Case>
TIC SURVEY 2007 THE USE OF ICT FACILITIES IN TIC
ICTSurvey identification
A. IDENTIFICATION
Region (Continent)
Country
Room
Date Month
Visit
Respondent
Interviewer
Result
For Help, press F1
No Partials ADD
Field = ICTSURVEY_ID
Occurrence 1 of 1
NUM
Start CSPro Gmail - test - Windows ... CSPro 3.2 - [ICTSuvey... CSEntry - (Apl File =... Microsoft PowerPoint - ... EN 2:43 PM

CAPI mode


CSPro 3.2 - [ICTSuvey.fmf]
File Edit View Options Align CAPI Options Tools Window Help
ICTSuvey
ICTSurvey questionnaire
ICTSurvey questionnaire
ICTSurvey identification
Region
Country
Room
Respondent
Interviewer
Visit1_d
Visit1_m
Result
ROther
Personal Information
Training Course Profile
ICT Status in TIC
ICT Status in TIC_cont
Files Dicts Forms
Region
1 Africa
2 Asia
3 Europe
4 North America
5 Oceania
6 South America
TIC SURVEY 2007 THE USE OF ICT FACILITIES IN TIC
ICTSurvey identification
A. IDENTIFICATION
Region (Continent)
Country
Room
Date Month
Visit
Respondent
Interviewer
Result
865,245
start
100%
8:29 PM

Output

- Completed Data files (member group)
- No missing data

Knowledge gained

- How to create data entry application by using CSPro

Data Processing (Sombat)

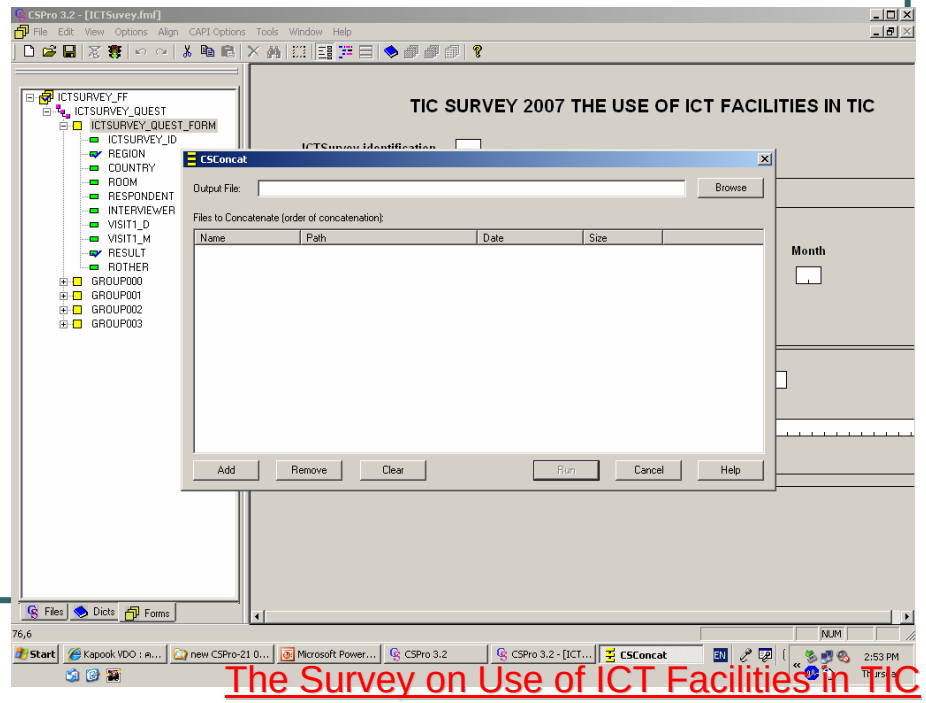
- Data Appending and cleaning
- Data processing (Tabulation and Graph)

(Timing = 25th-26th June)

Data Appended

- Software = CSPro
- Function = Concatenate Data
- Output = Data files (ASCII or text)

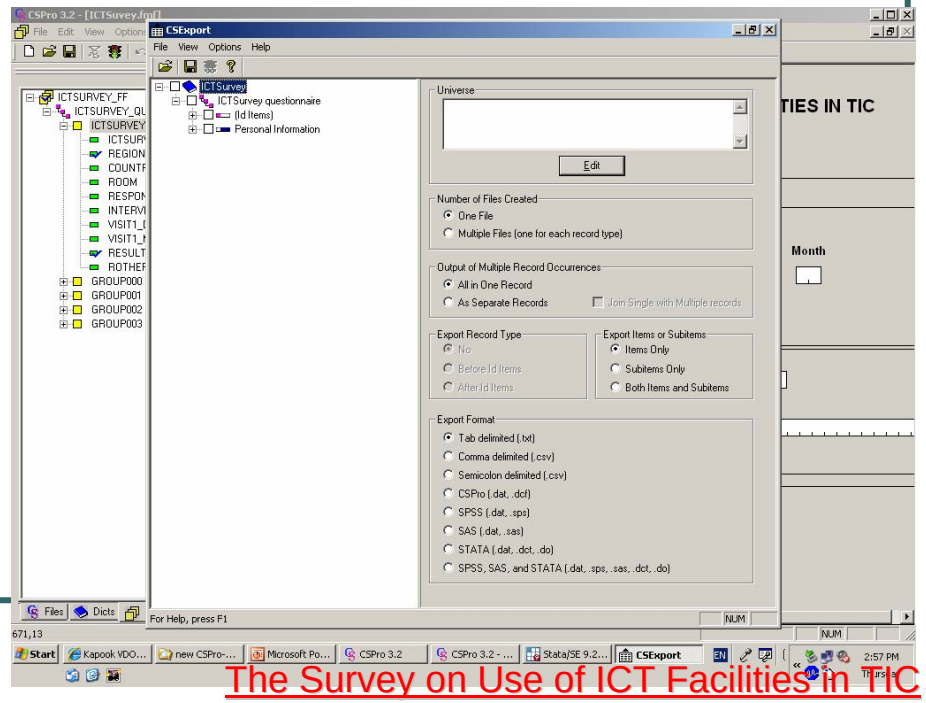
(Links)



Data processing (cont'd)

Converted data file

- Software = CSPro
- Function = Export Data
- Output = STATA file (Do file)

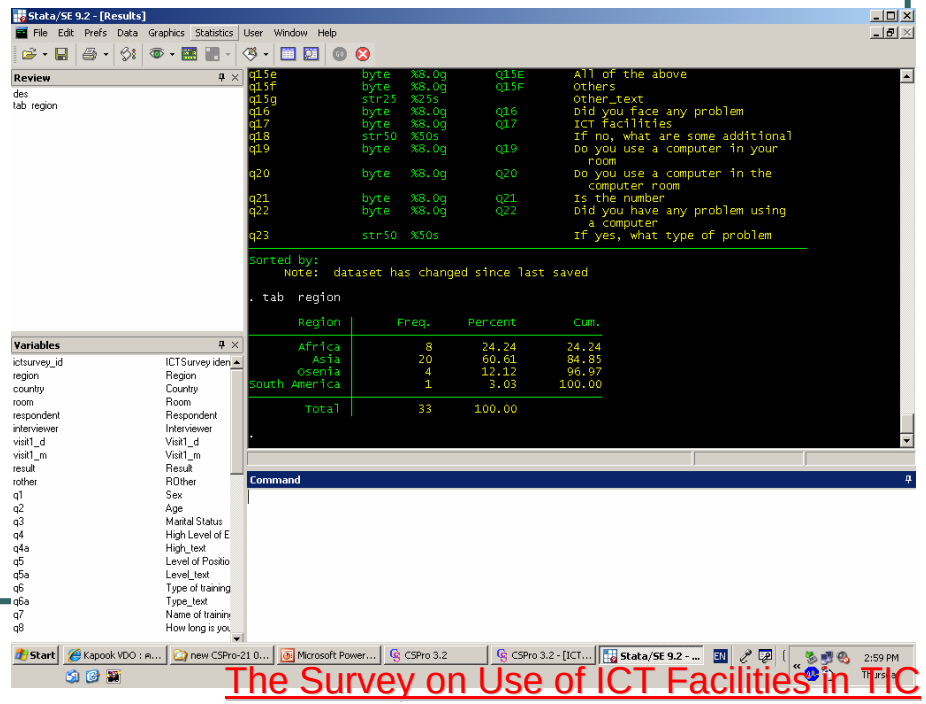


Data processing

Compilation and Tabulation

- Software = STATA
- Function = des, tab
- Output = Single table, Cross table

(Links)



Data processing

Created table and graph

- Software = STATA and Excel
- Function

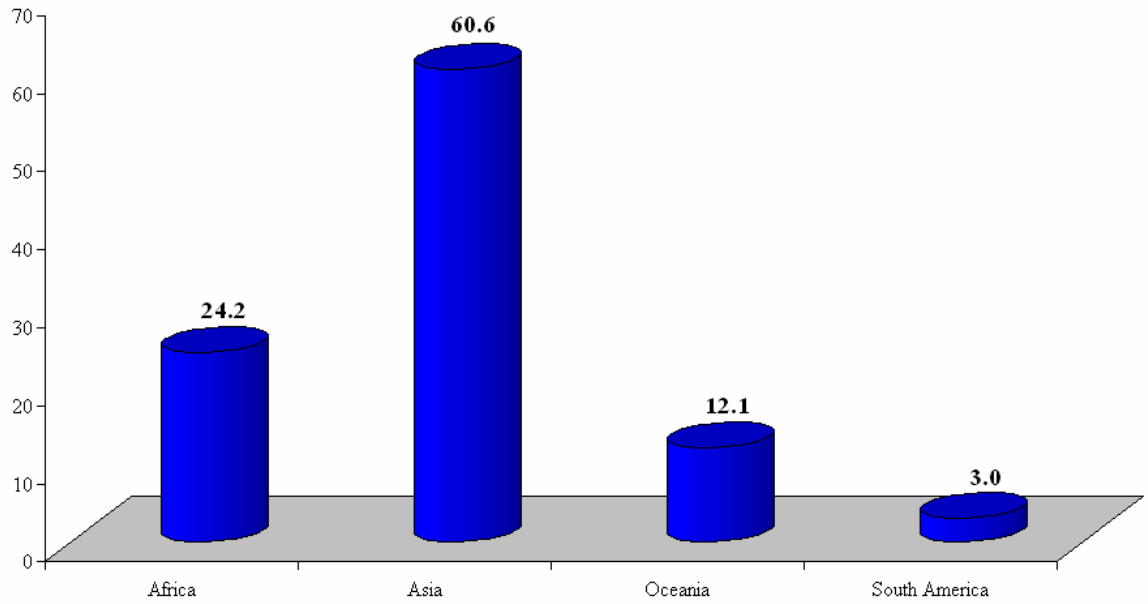
  = Copied the table from STATA tabulation and pasted in Excel

  = Created table and graph for the report in Excel
- Output = Table and Graph

(Links)

Table 1 REGION		
Region	Number	%
Africa	8	24.2
Asia	20	60.6
Oceania	4	12.1
South America	1	3.0
Total	33	100.0

Figure 1 Percentage of Participant's region



Problem Faced

- We don’t have enough experience for use STATA complexly.
- The command in STATA is difficult to remember.

Solution Solved

- We use manual & STATA text.
- Brainstorming, Trial & error.

Data Interpretation (Bidhan)

- Data Interpretation
- Inference
- Others

Data Interpretation

- **Interpretation**
  * Use of tables/cross tables
  * Use of graphs
  * Phenomenon
  * Interpret data *(link tables, etc)*

Output Findings

- Major participants from Asia
- Male & Female are about equal
- Most people all in 38yrs age group
- Both married & unmarried are prominent
- Major Master’s degree holder

Output Findings (cont'd)

- Major Participants are for group trainings
- All use computers
- 70% use computer in room
- All Participants use internet
- 73% referred as enough ICT facility in TIC

Output Findings (cont'd)

- Education by Sex does not differ much
- Equal share of Male & Female in High level position in their Organization.
- Most participants use ICT for Email, Online chatting, News & Research.

Other Job Done

- Preparation of Manual *(Link manual)*
- Report Writing *(Link Introduction)*

Problem faced & Solution.

- Time Constraint
- Limited knowledge in software

Solutions

- Go fast
- Work in group
- Project Management
- Discussion

References

- Designing Surveys
  - Ronald Czaja
  - Johnny Blair
- Sample and the Census
  - Darga
- CSPro
  - Help menu

Dissemination (Didier)

- How
- Software Used
- Result to disseminate

How

- Dissemination on Hard Copy
- Dissemination on soft copy
- Dissemination on CD
- Dissemination on Web Site ***(Links)***

Software Used

- MS Word
- Adobe PDF
- Ms FrontPage

Problems

- Lack of Software
- Difficulty on designing dynamic pages

เอกสารแนบ 3

Action Plan on ICT to Production & Dissemination of Official Statistics

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Goals

- Enhancing the work efficiency.
- Staffs of National Accounts Office, NESDB will gain knowledge for produce and disseminate the statistics.

Objectives

- To share experiences and knowledge gained from UNSIAP - ICT training course.
- To train my colleague to understand how to produce and disseminate the statistical data.

Action Plan I

Plan	Task	Participants	Requirement	Assumption
Seminar on ICT Production and Dissemination. (1 working day)	- Seeking permission from director. - Preparation of outline and equipment. - Conduct the seminar. (Timing = 1 month in September 2007)	- Staffs of National Accounts Office, NESDB.	- Presentation and handouts.	- Permission from director.
Indicator – Number of Staffs of National Accounts Office, NESDB.				

Action Plan II

Plan	Task	Participants	Requirement	Assumption
STATA and CSPro Training. (10 working days)	- Seeking permission from director. - Define number of trainees and identifying participants. - Preparation of outline and equipment. - Convince other resource *if necessary* (expert from UNSIAP and software). - Conduct the training. (Timing = 4 months from October to December 2007)	Staffs of National Accounts Office, NESDB.	- Computer. - Software. - PPT and Handouts.	- Permission from director. - Availabilities of training requirement (funds and necessary equipments).
Indicator – Number of Staffs of National Accounts Office, NESDB.				

Alternatives

- In case, it isn't possible then I will share knowledge with my colleagues informally.
- Change timetable or subject in order to implement this plan successfully.

Thank you

SIAP FEEDBACK WILL BE AT LEAST AT THE END OF OCTOBER (1st ACTION PLAN) *AND* THE END OF JANUARY 2008 (2nd ACTION PLAN)