



Training Course on Measuring ICT Access and Use in Households and Businesses

Organised jointly by ITU, UNCTAD and ECA

Addis Ababa, Ethiopia

13-24 July 2009



***Part A: ITU Training Course on Measuring ICT
Access and Use by Households and Individuals***

Final Report

Addis Ababa, Ethiopia

13-17 July 2009

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ITU Training Course on Measuring ICT Access and Use by Households and Individuals

Final Report

1. General aspects

The objective of the **ITU Training Course on Measuring ICT Access and Use by Households and Individuals**, held in Addis Ababa, from 13-17 July 2009, was to improve the capacity of national statistical offices from Anglophone African countries to produce internationally comparable statistics on ICT access and use by households and individuals.

The course was part of the joint ITU-UNCTAD-ECA training on Measuring ICT Access and Use in Households and Businesses held during 13-24 July 2009. The training was divided into two parts: the ITU training course was delivered during the first week (13-17 July), followed by the UNCTAD training course the second week (20-24 July).

The ITU training course was divided into the following five modules (see agenda in Annex 2):

- Module H-1: Introduction to household ICT statistics. Survey planning and preparatory work
- Module H-2: Statistical standards and topics. Data sources and collection techniques
- Module H-3: Questionnaire design. Household Survey design
- Module H-4: Data processing. Data quality and evaluation
- Module H-5: Data Dissemination

Financial support to the delivery of the ITU training was provided by the Government of Canada and the Economic Commission for Africa (through a contribution by the Government of Finland).

2. Participation

The course was attended by 18 participants from National Statistical Offices of the following 13 Anglophone African countries: Botswana, Ethiopia, Ghana, Kenya, Liberia, Mozambique, Namibia, Nigeria, Sierra Leone, The Gambia, Uganda, Zambia and Zimbabwe (see list of participants in Annex 3). In addition, staff members of UNECA attended, specifically from the Science and Technology Division (ISTD) and the African Center for Statistics (ACS).

3. Course delivery

The main instructor delivering the course was Mr. Juan Munoz, consultant to ITU. ITU staff delivered part of the content, in particular related to the definitions of the core list of ICT indicators. The course is designed to be highly interactive and includes group discussions, group exercises, as well as tests and evaluations for each of the five modules, all of which was managed and facilitated by ITU.

The performance of the instructor, who delivered the course for the first time, was praised by participants and by ITU staff. Mr. Muñoz participated in the training-of-trainers on ICT statistics, which ITU and UNCTAD had organized jointly in June 2009 in Geneva, and was subsequently engaged by ITU for this course.

4. Overview of the training course outcome

Overall, the course was well perceived by the participants. The majority evaluated its content, the support material provided and the methodology as “very good” (highest level possible). Participants appreciated very much the interactive nature of the training course and their involvement in group discussions. Also, the daily completion of tests was considered positively. The tests were graded every day to provide results and review difficult concepts the next morning, which allowed providing immediate feedback. In general, participants praised the feedback given by the trainer and the ITU resource persons to their questions and opinions.

Since there are few opportunities for statisticians in the region to participate in these kind of trainings, participants highly appreciated the possibility to learn about harmonizing statistics and exchange regional experiences. They also highlighted the importance of giving training to the whole of Africa, in order to be able to have comparable ICT statistics across the continent. A number of countries in the region have started to include ICT access indicators in their ongoing surveys or censuses; others are planning to include them in their forthcoming surveys; and a few are envisaging carrying out an ICT survey.

Therefore this training course has contributed to foster their work in this regard, for which they expect ITU and the *Partnership* to follow up.

The selected participants met the expectations of the organisers and the trainer; they had a good statistical knowledge and were familiar with the different steps of conducting surveys, in particular household surveys. Therefore, they were able to follow the training content and participate actively in all sessions. Trainer and facilitators of the training course observed a strong commitment from the participants to get the most benefit from the course in view of measuring ICT statistics in the future.

5. Evaluation of the course by participants

This section provides the results of the evaluation of the course carried out by the participants. Results are shown separately for the final overall evaluation of the course, and for each module.

5.1. General evaluation of the course

Issues considered in the final evaluation were the content of the course in view of the coverage of the topic, the depth of the technical level and the accuracy of the information delivered. It also assessed the quality of the support material, the methodology, the organisation, the duration and the number of participants. Participants were also asked to make general suggestions for improving the course. Detailed answers are provided in Annex 1. The scale used for this evaluation ranges from “very good” to “very poor”.

Content evaluation:

The content of the course was evaluated in terms of three components. The first was the coverage of the topic, which was evaluated as “very good” by the majority of the participants (61%), as “good” by 28% and “adequate” by 11%. The technical level was assessed as “very good” by 56%, and assessed as “good” and “adequate” by the remaining 44%. Regarding this item, participants commented that technical issues such as sample design and sampling error, which are usually the more complex, technical issues in the survey process, should be treated in a greater detail. “Accuracy” received the highest appraisal of the three, (“very good” by 56% of participants and “good” by 44%). No participant rated it lower.

Support material:

This includes the ITU Manual for Measuring ICT Access and Use by Households and Individuals and the presentation slides used to deliver the five modules. Most

participants evaluated the Manual as “very good” (78%) and some as “good” (22%). Regarding the slides, 65% evaluated them as “very good” and 35% as “good”. No comments for improvement were made on this item.

Methodology:

Participants evaluated the methodology as “very good” (65%) and “good” (35%). They praised especially the usefulness of group discussions, exercises and tests, which are an integral part of each of the course modules. However, they expressed interest in having even more practical exercises.

Organisation:

The organisation of the course was well perceived in general. 39% qualified it as “very good” and 56% as “good”. Logistics difficulties related to travel and delivery of per diems were experienced.

Duration:

44% of participants considered the duration of the course adequate (long enough), while 56% considered it too short. Nobody considered the course as too long. Those that considered it too short commented that more time should be allotted in order to have a deeper understanding of all topics; some highlighted the importance of having more time for practical exercises.

Number of participants:

Most participants considered the number of participants “adequate” (83%), while a few of them said it was too low (17%). In general, participants commented that the size was good enough to allow individual participation and feedback and at the same time to learn from the experience of others. It should be noted that the normal course limit is 25 participants. However, due to last-minute cancellations of some participants, the final number was lower.

General suggestions:

Among the **suggestions for change and improvement**, participants mentioned to increase the length of the course in order to cover in more detail some technical issues and to have more practical exercises. They also recommended to do follow up with participant countries and to explore the possibility of national trainings for ICT surveys. Other comments emphasized covering topics such as ICT investment and e-government measurement and to organize country-level assistance.

5.2. Evaluation of the modules

Each day, an evaluation of each of the five modules was conducted. Participants were requested to evaluate the following aspects of every module:

- Comprehensibility of the presentation and presenter
- Relevance of the module to their work, now or in the near future
- Value of group exercise in reinforcing learning
- Usefulness of supporting material: Manual and presentation slides

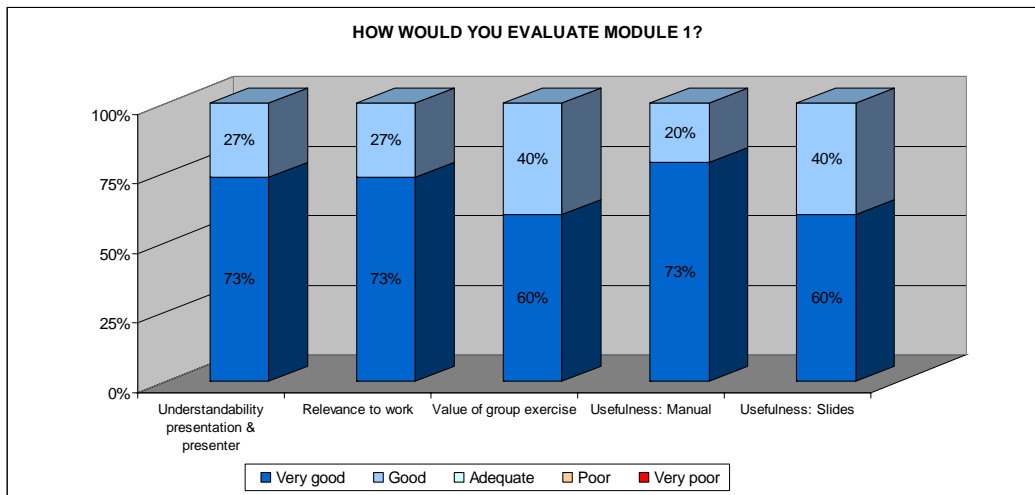
Similar to the final overall course evaluation, the scale used ranged from “very good” to “very poor”.

Participants were also asked which parts of the module they liked most/least, and to provide recommendations in order to improve each module.

Module 1: Introduction to household ICT statistics. Survey planning and preparatory work

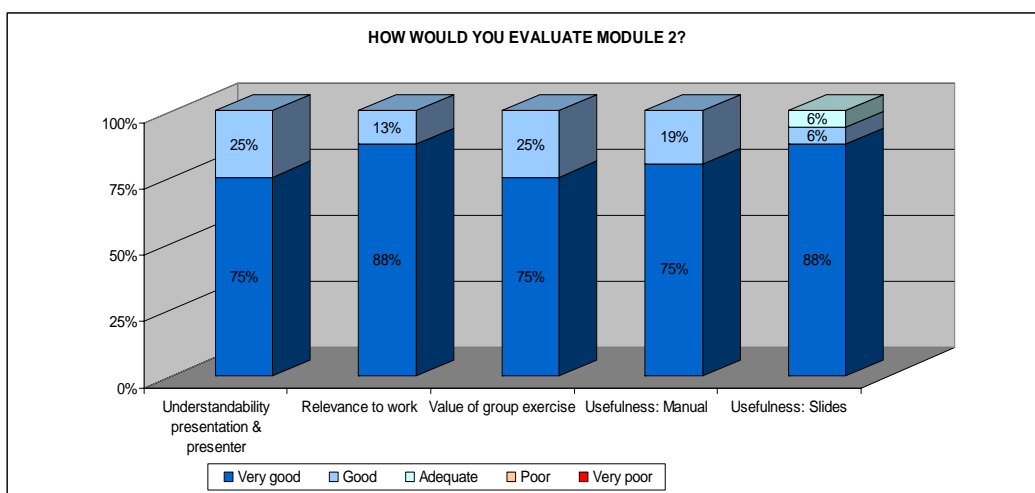
All aspects of module 1 were evaluated as “very good” and “good” (see graphic). In general, most participants liked the content of the module; some emphasized the part on the survey planning as their favourite. Among the suggestions made by participants are: to increase the time for the module, to include some case studies or examples, to summarize the main ideas of the discussion at the end of the day and to include more practical exercises.

Recommendations also included dealing with some topics of the survey planning in more detail; however, these are presented later during the week in other modules. Therefore, one lesson learnt is that it is important to emphasize the items that will be addressed in more detail during the subsequent modules of the course.



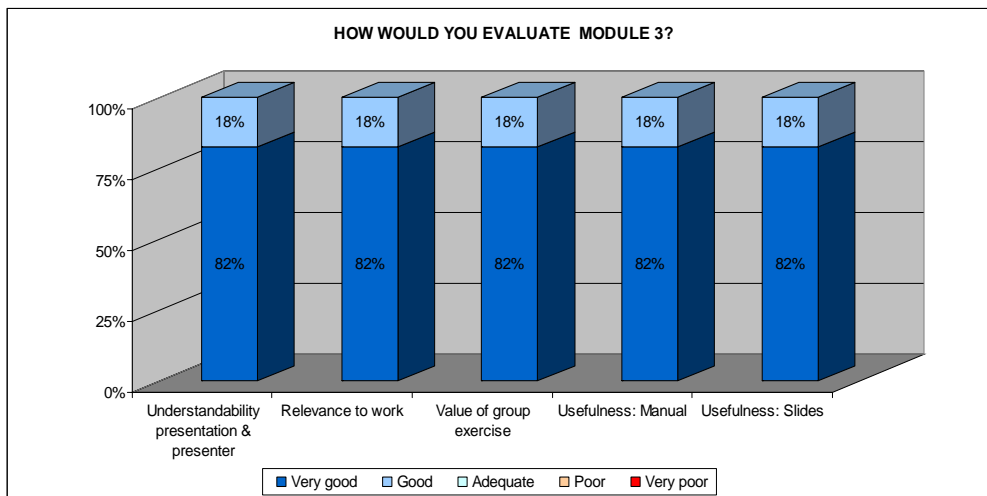
Module 2: Statistical standards and topics. Data sources and collection techniques

This module was particularly relevant for their functions, and in general all aspects of the module were positively assessed. The most liked topic was the ICT core indicators definitions and clarifications; but also the group exercises and discussions. Most participants suggested increasing the time allotted to this module as a way for improvement, particularly the time allotted for group work. Other recommendation was to take into account their comments on the core indicators in future revisions.



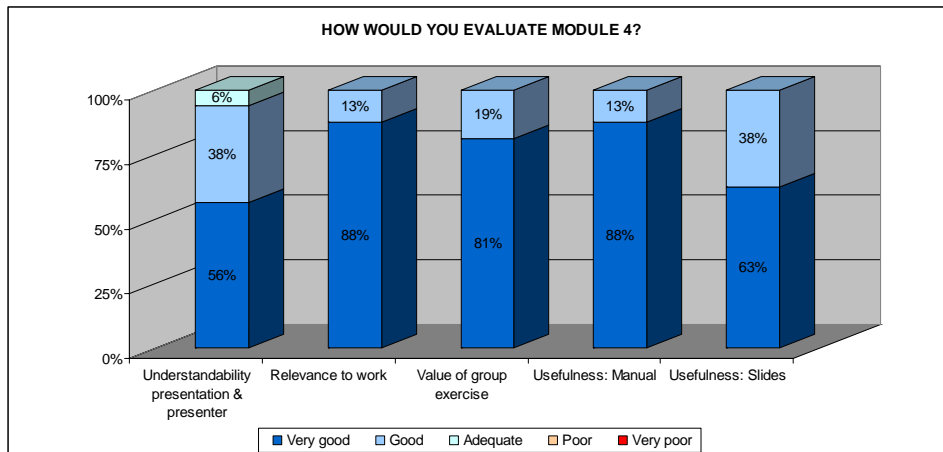
Module 3: Questionnaire design. Household Survey design

Overall, this module was evaluated very similar by the participants. 82% evaluated the different aspects of the module as “very good” and 18% as “good”. Participants liked all parts of the module; however some of them made particular emphasis in questionnaire design and sample design as the most relevant. The main recommendation made was to come up with practical examples or exercises on sampling design, which seems to be the most difficult area and at the same time very relevant for their work.



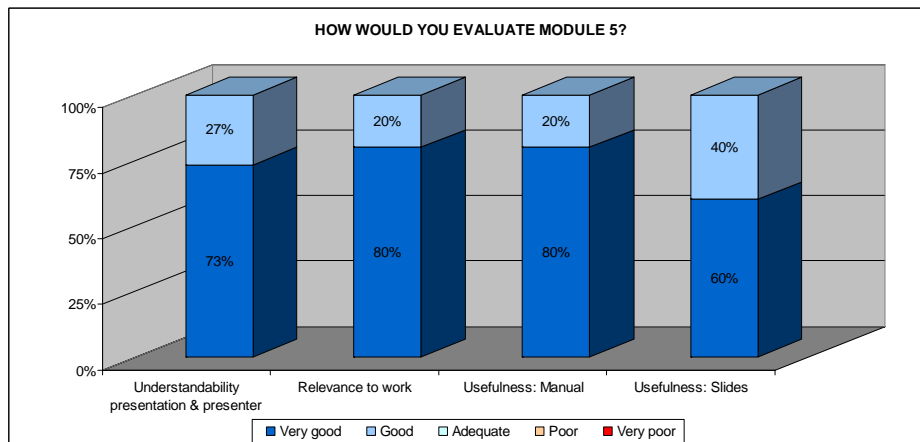
Module 4: Data processing. Data quality and evaluation

In this module, participants seemed to have less understanding of the presentation compared to the other modules, although the overall evaluation is still “very good” and “good”. Among topics they liked most are data quality, imputation for non-response and data editing. They also liked the group exercises. For participants, the most complex parts of this module were sampling error calculation and weighting of data; therefore they recommended explaining these in more detail.



Module 5: Data Dissemination

Participants made a good evaluation of the module overall.¹ Participants liked more the part on metadata dissemination and how to report data to ITU. A recommendation was to develop an application for generating tables required by ITU.



¹ This module doesn't include a group exercise.

6. Main findings and recommendations for future training courses

Content of the Course

Since most of the participants in this Training Course are statisticians or professionals who work with statistics on a daily basis, their focus is more on technical issues and on more complex statistical subjects, such as sample design. Although the role of the Partnership is primarily to train participants on the production of ICT statistics, this training has shown that there is a need to strengthen the theoretical knowledge and capacity on statistics among NSOs in the developing countries.

Methodology

Participants found the group exercises very valuable; they recommended having more time to complete them and to report back the results, in order to benefit from the experiences of other groups and countries.

Participants recommended including more practical examples on how the different parts of the survey design are carried out in countries and the use of a data set to conduct some exercises along the course. This would probably make them better understand the survey process of ICT statistics. The use of statistical software could also be included in some of the group exercises.

Participants and facilitators agreed that the availability of an online course could be useful to disseminate more widely the knowledge on how to measure ICT among NSO's staff and to complement the knowledge acquired during face-to-face trainings.

Final remarks

The delivery of the training is considered highly successful. The interest to collect, or expand the collection of, ICT statistics was high among the participants from the region. It is to be expected that several of the countries will be able to produce a number of the ICT core indicators in the near future. Some countries may request further technical assistance from ITU, for example in the preparation and design of their questionnaires.

The training course itself was appreciated highly. Since this was the first time the course was delivered in full, an important conclusion is that the course can be considered as a useful capacity building tool available for ICT data producers in developing countries. However, taking into account comments made by the trainer and participants, some adjustments will be made to improve the course material (presentation slides, tests, group exercises) and the delivery. Useful

comments were also received by the instructor concerning the Manual, which will be included in the revised version.

As a follow-up, an online forum² has been created by UNECA, where course participants, the instructor, and ITU, UNCTAD and ECA staff will continue exchanging experiences and documents on ICT statistics.

² <http://www.dgroups.org/unece/measure-ict-africa>

Annex 1. Final Evaluation

Q1. Duration:	Number of answers	Percentage
too Long		
long enough	8	44%
too short	10	56%

Q.2 Number of participants:	Number of answers	Percentage
too high	0	
adequate	15	83%
too low	3	17%

Q4. Technical content	Number of answers	Percentage
coverage of the topic		
very good	11	61%
good	5	28%
adequate	2	11%
poor	0	
very poor	0	
technical level		
very good	10	56%
good	4	22%
adequate	4	22%
poor	0	
very poor	0	
accuracy		
very good	10	56%
good	8	44%
adequate	0	
poor	0	
very poor	0	

Q5. Organisation	Number of answers	Percentage
very good	7	39%
good	10	56%
adequate	0	

poor	1	6%
very poor	0	

Q6. Support material		Number of answers	Percentage
manual			
	very good	14	78%
	good	4	22%
	adequate	0	
	poor	0	
	very poor	0	
slides			
	very good	11	65%
	good	6	35%
	adequate	0	
	poor	0	
	very poor	0	
	NR	1	

Q7. Methodology		Number of answers	Percentage
	very good	11	65%
	good	6	35%
	adequate	0	
	poor	0	
	very poor	0	
	NR	1	

Annex 2. Agenda

PART A: ICT Statistics on Households and Individuals

Monday, 13 July 2009

8:45 - 9:00	Registration of participants
9:00 - 10:00	Opening session (ITU, ECA)
10:00 - 11:00	Introduction to the course: <i>Contents, objectives and methodology</i> Presentation of instructor and participants
11:00 - 11:20	<i>Break</i>
11:20 - 11:30	Group Photo Session
11:30 - 13:00	Module H-1: Introduction to household ICT statistics. Survey planning and preparatory work
13:00 - 14:00	<i>Lunch</i>
14:00 - 15:30	Module H-1: Introduction to household ICT statistics. Survey planning and preparatory work (cont.)
15:30 - 15:45	<i>Break</i>
15:45 - 17:00	Module H-1: Introduction to household ICT statistics. Survey planning and preparatory work (cont.)
17:00 - 17:30	Test and Evaluation

Tuesday, 14 July 2009

9:00 - 10:30	Module H-2: Statistical standards and topics. Data sources and collection techniques
10:30 - 10:45	<i>Break</i>
10:45 - 13:00	Module H-2: Statistical standards and topics. Data sources and collection techniques (cont.)
13:00 - 14:00	<i>Lunch</i>
14:00 - 15:30	Module H-2: Statistical standards and topics. Data sources and collection techniques (cont.)
15:30 - 15:45	<i>Break</i>
15:45 - 17:00	Module H-2: Statistical standards and topics. Data sources and collection techniques (cont.)
17:00 - 17:30	Test and evaluation

Wednesday, 15 July 2009

9:00 - 10:30	Module H-3: Questionnaire design. Household Survey design
10:30 - 10:45	<i>Break</i>
10:45 - 13:00	Module H-3: Questionnaire design. Household Survey design (cont.)
13:00 - 14:00	<i>Lunch</i>
14:00 - 15:30	Module H-3: Questionnaire design. Household Survey design (cont.)
15:30 - 15:45	<i>Break</i>
15:45 - 17:00	Module H-3: Questionnaire design. Household Survey design (cont.)
17:00 - 17:30	Test and evaluation

Thursday, 16 July 2009

9:00 - 10:30	Module H-4: Data processing. Data quality and evaluation
10:30 - 10:45	<i>Break</i>
10:45 - 13:00	Module H-4: Data processing. Data quality and evaluation (cont.)
13:00 - 14:00	<i>Lunch</i>
14:00 - 15:30	Module H-4: Data processing. Data quality and evaluation (cont.)
15:30 - 15:45	<i>Break</i>
15:45 - 17:00	Module H-4: Data processing. Data quality and evaluation (cont.)
17:00 - 17:30	Test and evaluation

Friday, 17 July 2009

9:00 - 10:30	Module H-5: Data dissemination
10:30 - 10:45	<i>Break</i>
10:45 - 12:30	Module H-5: Data dissemination (cont)
12:30 - 13:00	Test and evaluation
13:00 - 14:00	<i>Lunch</i>
14:00 - 15:00	Final course evaluation and discussion Closing remarks
15:00 - 16:00	Handing out of Training Certificates

Annex 3. List of Participants

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