Capacity Building Workshop on
How to establish an ICT Indicators database in Indonesia
Jakarta, 29 October – 2 November 2007

Organised by ITU (BDT/POL/STAT)
and
DG POSTEL, Indonesia

FINAL REPORT

Introduction

1. The joint ITU-DEPKOMINFO/DG POSTEL capacity building workshop on "How to establish an ICT Indicators database in Indonesia" was held on 29 October to 2 November 2007 in Jakarta, Indonesia.

2. The workshop was attended by more than 60 participants, representing different agencies working on ICT issues in Indonesia, including the ministry, the regulator, the National Statistics Bureau as well as telecom operators and Internet Service associations and ISPs. Experts from Hong Kong, China (representing the regulator (OFTA) and national statistics office (C&SD)), ITU area office representative and ITU Statistics Division (STAT) were also present (see list of participants).

3. The workshop was conducted in reply to the request of Indonesia, mainly aimed at assisting the country in improving their data collection and dissemination practices to meet the needs for ICT statistics by different users from inside and outside the country. The workshop addressed challenges related to information society measurements in the Indonesia, presented possible solutions to overcome the challenges and identified the need for more coherent action among the Indonesian agencies. It also aimed at increasing awareness both at the political and technical level for the need to measure information society developments and for linking the national policy agenda with the e-measurement agenda.

4. The workshop was formally opened by **Mr. Basuki Yusuf Iskandar** (Director General, Posts and Telecommunications, Indonesia), who at the same time welcomed the participants. He emphasized the interest of his organization to have ICT data covering infrastructure availability and at the same time data covering usage of different ICTs.

5. Responding to Mr. Iskandar's address, **Ms. Aurora Rubio** (ITU Area Office Jakarta, Senior Advisor for Asia Pacific) welcomed the participants on behalf of the Secretary General of the ITU and the Director of BDT. She highlighted ITU's commitments resulting from the *World Telecommunication Development Conference* (WTDC-06) and the *World Summit on the Information Society* (WSIS) as well as from ITU's regional activities. She highlighted ITU's commitment to assist its member states to foster regulation, including support for the establishment of ICT data collections.

6. This summary focuses on the substantive discussions, based on the following thematic sessions:
   - Setting the scene
   - Current measurement work
   - Towards capacity building
   - ITU Telecommunication Indicators
   - ICT household and business statistics
   - Online survey
   - The way forward
   - Hands-on training

Session 2: Setting the scene

7. Ms. Monika Muylkens (ITU/STAT) presented the importance of measuring the Information Society as highlighted in the WSIS Plan of Action and the advantages it can bring in formulating ICT policies. BPPT asked whether ITU could continue assistance by providing its publications. ITU expressed its willingness to assist in anyway possible given the resources available.

Session 3: Current Measurement work

8. Ms. Esperanza Magpantay (ITU/STAT) presented the ITU Statistics Division's measurement work and the Partnership on the Measuring ICT for Development. The presentations highlighted the Core ICT Indicators list and the ITU Telecommunication Indicators. She emphasized the need to adopt the list when starting ICT data collection in Indonesia.

<u>Session IV: Towards capacity building</u>

9. **Mr. Ismael Akhmad** (Director of Internet Protocol (DG Postel)) presented the data collection and dissemination of DG Postel related to data collected from Internet Service Providers. The data are available for internal use and not yet disseminated to the public.

10. **Dr. Tatang A. Taufik**, Director of Center for Information and Communication Technology, Agency for Assessment and Application of Technology (BPPT), explained that ICT is one out of six topics in the research and technology agenda in Indonesia. The Centre is collecting ICT secondary data on the Indonesian ICT situation since raw data are not available for their analysis. The presentation highlighted the different data collection of the agency including ICT infrastructure, ICT Investment, ICT Trading, Government spending on ICT and ICT in Education. The data collection started in 2000 and subjects covered in each data collection expanded over the years. The main source of their data includes the telecom operators, ISPs and the national statistics agency (BPS).

11. . **Mr. Widi Amanasto** from PT. Telkom presented some of the latest statistics of the company and described the challenges it face in obtaining the information.

12. **Mr. Armand Hermawan** presented INDOSAT's experience in ICT measurement and the ICT statistical situation in Indonesia from his companies' perspective. INDOSAT collects plenty of data on its own performance. He mentioned that companies listed in the stock report their company's performance through annual reports and 20-F. He highlighted that one of the challenges to data dissemination is related to confidentiality of company information. However, he acknowledged the operators has obligation to supply the data to the regulator as mandated by their license.

Ms. Sylvia W. Sumarlin, Chair of Indonesian Internet Service Provider Association (APJII)) stressed the importance of data availability in a fast growing environment. APJII collects data on Internet from over 200 APJII members. She highlighted the many reasons for their data collection efforts that include assisting members to continuously upgrade its quality of internet access, creating public awareness to support the use of ICT for better human resources quality, applying Internet within the business environment to achieve a better global connection and communication, assisting the government to implement ICT as a tool to enhance economic development, providing members with training, new information and current technology on the internet development, and enabling the Indonesian people to adopt ICT as part of their goals toward International Partnerships. APJII also collects data on Internet subscribers, Internet users, Internet traffic, and international Internet bandwidth. The presentation also highlighted some of the challenges it face in collecting the data from the member ISPs.

ITU Telecommunication Indicators

13. **Ms. Monika Muylkens** presented some general thoughts on legal instruments used by several countries that helped them to collect data from the operators. She elaborated by showing country examples. ITU was requested to provide more details regarding existing legal obligation currently in practice in developing countries with same profile as Indonesia.

14. **Ms C. Chim** (Regulatory Affairs Manager, from the telecommunication regulator of Hong Kong, China (OFTA)) presented their experiences in ICT data collection and dissemination. She highlighted that their agency regularly collects information from operators, practicing the legal obligation of the operators to provide the data to OFTA as written in their licenses. Failure to submit the data on time entails payment of penalties in different amounts depending on the deadlines provided. She mentioned that OFTA is very sensitive about disclosing sensitive/confidential business information despite of the legal obligations. She stressed the need for good cooperation and coordination between the authority and the operator to ensure effective data collection. DG Postel was very interesting in learning OFTA's experience in applying the legal obligations to data collection, and mentioned that legal obligation to provide the data is also included in the operator's license. However, there is no strict implementation of the provision.

15. Other items of the session include introduction to different indicators included in the ITU Telecommunication Indicators Handbook. The presentations of **Ms. Monika Muylkens** and **Ms. Esperanza Magpantay** highlighted definition of indicators, limitations to related to data collection, as well as how to compile the data for the indicators using data collected from the operators to have the aggregated country data, most specifically for revenues and investments indicators.

ICT household and business statistics

16. **Ms. E. Magpantay** presented the Core list of ICT indicators and its definition covering access to and use of ICTs by households and individuals agreed by the Partnership on Measuring ICT for Development. She highlighted that the indicators are not collected by operators or the regulation authority but rather the national statistic offices using official ICT household surveys. **Ms. M. Muylkens** presented the Partnership's Core ICT indicators covering access and usage by businesses.

17. **Mr. Yiu-ming Chan** (Census and Statistics Department (C&SD)) presented Hong Kong, China's experience in the collection of ICT statistics using official household surveys conducted by the agency. He pointed out that knowledge of ICT data is crucial for the improvement of ICT access, quality of services, governmental decisions, businesses and users satisfaction. He highlighted the important role that the regulator and the ministry plays in identifying ICT questions to be included in the survey. He also mentioned that the household ICT survey planning and implementation are the duties of C&SD but actual data collection (interviews) are contracted to private consultants. C&SD ensures full implementation of the survey at a given period and controls the data collected by the consultants to ensure quality of results.

18. **Ms. Esperanza Magpantay** presented some of the data collection and dissemination practices of several countries including the national statistical offices (NSO) of the EU, Korea, Malaysia, Mexico and Singapore. She highlighted that the success of the ICT data collection in selected countries presented is partly due to cooperation inside the country among ICT agencies and national statistics office and the need for ICT data coming from the users and policy-makers.

19. The situation of Indonesia in terms of data collection of data covering access to and use of ICTs by households, individuals and villages with access to ICTs was presented by **Dr. Abdul Rachman** (Director for Statistic Disseminations, National Statistic Bureau (NSB/BPS)). BPS collects data related to socio-economics and business environment. The ICT questions are included in its household surveys and not as a separate ICT survey. It is the goal of BPS to adopt the Core ICT Indicators of the partnership in its next data collection and to develop ICT data dissemination system. He also mentioned that BPS plans to establish a dedicated unit to work on the collection and dissemination of ICT data. The participants of SMART and Telkom expressed their interest in improving coordination among the governmental agencies. Mr. Rachman recommended setting up a meting with all decision-makers and all data collecting entities to discuss further steps. ITU asked whether the NSO intends to collect data on ICT in businesses. BPS highlighted that is not yet included in their data collection. BPS will contact both ITU and UNCTAD once they start planning the ICT household or business surveys.

Online survey

25. Ms. E. Magpantay presented the ITU Eye database and its functionality, including the online survey tool that DG Postel should use in completing the ITU World Telecommunication Indicators questionnaire.

26. Ms. E. Magpantay presented a proposal for a country database (using screen shots of the database to be developed) that the regulator (DG Postel) can use to store data collected from the operators. The country database was proposed since one of the DG Postel's challenges is the lack of a database that can store the data coming from operators. The database can be linked to ICT Eye country data and is an effective tool for aggregating country level information. DG POSTEL however needs to investigate system requirements of the database to check whether the system is available in their organization. They will confirm to ITU whether development of such database is beneficial to them or not.

26. The final session of the fourth day highlighted some of the recommendations that will help the regulator in collecting and disseminating ICT statistics. The recommendations were formulated based on the challenges identified by different agencies in the country through presentations, discussions and written contributions from participants. The recommendations include the following:
- Define roles of each agency collecting ICT statistics
- Strong commitment from all parties involved in the collection and dissemination of ICT statistcs
- Coordinate (and cooperate) to avoid any duplication of data collection
- Assign dedicated staff in POSTEL and BPS to work on ICT statistics/data
- Create a steering committee involving other agencies working on ICT statistics/issue to define needs for statistics (POSTEL, BPPT, BRTI, BPS, APJII, etc) and meet regularly to update data needs and developments
- Check data available at operator level to see if there is a need to expand current data collection of the operators

27. It was further recommended that the regulator DG POSTEL should lead the data collection from telecom operators, to collect administrative data such as subscribers and revenues, given the role it has in implementing the legal obligation included in operator's license. DG POSTEL should inform the operators and ISPs of the data reporting requirement in advance and to establish a solid relationship with them. Participation in regional workshops or global indicators meetings such as the WTI meeting is also recommended to be aware of new indicators and definition issues related to ICT indicators. Inside DG POSTEL it is also important have a focal point that will collect data from other units such as from the technical unit and unit in-charge of ISPs. Several telecom operators endorsed the recommendation and highlighted that it is not difficult for them to provide the required information.

28. Regarding data collected using the household survey; it is recommended that BPS should be in charge of data collection and dissemination since they are already collecting this data and they have the technical expertise in implementing surveys. Cooperation with the regulator and the ministry and other agencies is also important to ensure that indicators needed for policy-making are included in the survey. BPS is also encouraged to use the Partnership Core ICT indicators list to insure comparability of results at the regional and international level.

30. Finally, the participants and DG POSTEL appreciated the recommendations and mentioned that they will have internal consultation to discuss how to best implement the recommendations. The ICT statistics focal point will be identified internally. They also mentioned that DG POSTEL will start collecting data from the operators immediately to compile 2006 data in order to submit the country data to ITU before the 20 November deadline.

Hand-on training

31. The last day of the workshop was dedicated to a hands-on training where participants were provided three operator data examples to work-on. The purpose of the exercise is for the participants to experience working on the actual data, to apply what they learned during the first few days of the workshop, to identify limitations of the data collected and to make informed decision in applying the ITU definition of indicators. The exercise included calculation of the ITU indicators on telephone networks, mobile services, Internet, Tariffs and revenues. Participants exchanged experiences learned from the exercise and requested clarification for questions related to compilation of the data. It became obvious from the

exercise that compiling the data from three operators requires outmost attention and judgements. It was also learned that in order to effectively handle the data from operators, it is best to have a good knowledge of the national telecommunication market and to know the operators and their market shares.

Closing

32. The workshop was closed by representatives of DG POSTEL and ITU.

33. **Ms. Aurora Rubio** (ITU) summarized the results of the workshop: It became obvious that a lot of data is collected but there would be need for clearer mandates and roles in data collection. She pointed out that the final success of the workshop should be judged on the implementations of recommendations. She emphasized the willingness of ITU to help if needed. She also thanked DG POSTEL for its great logistic contribution to the workshop as well as Hong Kong, China for sharing its best practice experiences.

35. The **representative of DG POSTEL**, stressed that the workshop has touched on crucial topics needed for Indonesia's economic development that can be brought by available ICT statistics. He expressed its satisfaction with the workshop that is highly relevant for the operators, regulators and other participants. He further concluded to take the recommendations of the workshop closely into consideration.

36. **Ms. Esperanza Magpantay** (ITU/STAT) thanked the organizers of the workshop/training and mentioned that STAT can effectively help countries improve ICT data collection and dissemination if focused demand such as Indonesia will be provided by countries to help ITU experts formulate the capacity building activity. Further, she expressed her excitement of seeing the results of the recommendations by receiving more data from Indonesia and seeing Indonesia disseminates its data for public use.

37. Results of the evaluation questionnaire

Overall, the participants confirmed the importance and usefulness of the workshop. Out of the 28 questionnaire received, almost ninety percent of the participants that responded to the evaluation indicated that they found the meeting 'very useful'. This result resembles the oral assessment received at the end of the workshop.

The evaluation form highlighted that participants that responded appreciated particularly the hands-on session at the last day of the workshop.

Those that considered the workshop very successful gave the following reasons:
- ICT statistics are important.
- Indonesia needs to establish an ICT data system.
- More awareness is necessary.
- Standard definitions are important to reach comparability.
- Importance to improve knowledge about database systems.
- The training would help to evaluate DG POSTEL's data collection system.

Participants highlighted the following points on how to improve the meeting:
- More country best practice experience should be presented, specifically examples from developing countries with the same geographical and economical situation as Indonesia.

- More days should be allocated to hands-on training.
- Further discussion at country-level regarding division of tasks.
- Continued advice/training via e-learning.