ITU Regional Forum on ICT Measurement
Dubai, 13-15 December 2016

Conclusions and recommendations

ITU work on ICT statistics

- ☐ ITU's data collection is based on **national official statistics**, provided through **5 questionnaires** with fixed schedules. Questionnaires are sent to National Statistical Focal Points.

- ☐ ITU data are harmonised based on **statistical standards** (set in the *Manual* and the *Handbook*).

- ☐ Indicators and definitions are discussed and developed by two **Expert Groups**: EGTI and EGH. More than 700 and 450 experts respectively participate in the online forums of the Expert Groups.

- ☐ ITU provides indicators for **monitoring international goals and targets** (WSIS+10, MDGs/SDGs, Connect 2020).

- **National Statistical Focal Points** are essential for ensuring the timely and accurate reporting of data in the ITU questionnaires

- Data submitted to ITU are **not always validated** for consistency by country focal points

- When national data are not available, ITU and other institutions produce **estimates** which may be differ from each other

- Some countries are reporting sample data, not **extrapolated** (weighted) data (as they should)

ITU data collection
Recommendations

- Countries/relevant agencies should **identify national statistical focal points** for ICT statistics

- National statistical focal points should **ensure** that:

  - the validation procedures (Excel macros) are run before submitting the questionnaires and data are corrected as necessary;

  - only extrapolated data are reported;

  - metadata are reported together with the statistical data;

  - the data are submitted to ITU within the given deadlines.

National coordination and collaboration
Conclusions

❑ The collection, production and dissemination of ICT statistics is **fragmented** among different national institutions.

❑ Many countries have in place **institutional structures** (national statistical councils, statistical laws, etc.) for the coordination of statistical work, but not necessarily for ICT statistics.

❑ Issues that need coordination include: **methodologies** (definitions, concepts, indicator lists), **implementation** of statistical operations (timing, joint financing of surveys, data collection tools) and **dissemination** (national reports, response to international questionnaires).

National coordination and collaboration
Recommendations

❑ Countries should establish **inter-institutional committees focusing on ICT statistics**, including users and producers of data, at least policy-makers, regulators and NSOs, which are useful to enhance data quality (increased relevance, coherence and efficient allocation of funds).

❑ Domain expertise in ICT and know-how on implementing statistical operations should be **combined**.

❑ Countries should consider multi-annual **National Strategies for the Development of Statistics** as an opportunity for strengthening the «national ICT data ecosystem», distributing responsibilities and programming the calendar of ICT-related statistical operations (surveys, modules).

Supply-side ICT statistics
Telecommunication indicators: conclusions

- Telecommunication indicators are collected based on the methodology set in the *Handbook*. **Revisions** are published separately on the *Handbook* website.

- **New indicators** from administrative sources have been added in 2015. Definitions, concepts, clarifications are provided by ITU.

- A number of indicators need **further methodological clarifications** mostly due to technological advance, including:

  - active subscriptions, mobile/fixed classification, connection speed (advertised vs actual), mobile-broadband categories, international Internet bandwidth, coverage (based on population, not land).

  - subscriptions by technology – these are classified into mutually exclusive categories, but some aggregate indicators are obtained as sums of different categories.

- The availability of telecommunication indicators in the Arab region shows that a number of countries **do not report any data** to ITU or only partial data.

Telecommunication indicators: recommendations (1)

- Countries should adhere as much as possible to **international statistical standards** developed by ITU to ensure data comparability (necessary for benchmarking).

- Experts from both public and private sector **should get involved** in the Expert Group on Telecommunication/ICT Indicators (EGTI) to contribute and stay informed of the global work on telecommunication indicators.

- Since **new indicators and revised methodologies are published separately from the *Handbook*,** it is recommended that national experts consult them before reporting to ITU.

- Further **revisions of the *Handbook*** are required. ITU is encouraged to consider publishing an **on-line format** which would help keeping it up-to-date.

- All countries should make an effort to complete and **submit the ITU questionnaires**.

Demand-side statistics
ICT household indicators: conclusions

- Telecommunication indicators are collected based on the methodology set in the **Manual.**

- **3 new indicators** from household surveys have been added in 2015-16. Definitions, concepts, clarifications are provided by ITU, these are published separately on the *Manual* website.

- The following ICT Household indicators are included in the **SDG indicators** list:

  - Proportion of youth/adults with ICT skills, by type of skills
  - Proportion of individuals who own a mobile phone, by sex
  - Proportion of individuals using the Internet

Demand-side statistics
ICT household indicators: conclusions

☐ The proportion of countries in the Arab region **reporting the ICT household indicators** included in the short questionnaire is as follows:

- HH with computer: 43%

- HH with Internet: 43%

- Individuals using the Internet: 33%

- Individuals owing a mobile phone: 24%

- ICT skills: 19%

- ITU should consider publishing an **on-line format of the *Manual*** which would help keeping it up-to-date.

- Countries should give priority to the collection of the **IDI and SDG-ICT Household indicators** included in the short HH questionnaire

- To reduce costs related to data collection, NSOs should consider including **modules on ICT** in different existing or scheduled household surveys.

- Countries should ensure that household surveys are based on **representative samples** (with probabilistic selection).

- NSOs should provide **training to enumerators/interviewers** on different types of household Internet connections and ICT devices.

- Experts from NSOs and other entities **should get involved** in the Expert Group on ICT Household Indicators (EGH) to contribute and stay informed of the global work on telecommunication indicators.

Policy segment
Use of ICT indicators for policy-making: conclusions

- New data sources (such as **big data** from smart city sensors, IoT and machine-to-machine communication) are an opportunity to identify new patterns and trends

- ICT indicators can be used to assess Smart Sustainable Cities (targets, improvements and adjustments to be done). ITU has developed a **methodology to define KPIs**, and has tested it with cities, including Dubai.

- International indices such as ITU's *IDI* and WEF's *NRI* are useful to benchmark countries and call the attention of the media. However, a **detailed analysis** of their component indicators is needed for policy-making at the national level.

- Only countries that **did not provide** data to ITU are excluded from the **IDI** (e.g. in IDI 2016: Comoros, Iraq, Libya, Somalia from the Arab region)

Policy segment
Use of ICT indicators for policy-making: recommendations

- Countries are invited to **examine the methodology** for assessing Smart Sustainable Cities (http://www.itu.int/rec/T-REC-L.1602-201606-I and related documents)

- Data producers should work towards **increased data sharing, improved dissemination and data quality assessment** in order to better serve user needs.

- Countries not currently included in the **IDI** should collect the data and provide them to ITU.

- Countries and international organisations must pay attention to the **metadata** of national data used to produce composite indicators.

- ❑ **SDGs** represent a new framework for international cooperation. While no specific goals in the ICT domain are included, several ICT indicators have been selected to monitor the progress towards a number of targets.

- ❑ Most ICT indicators required for monitoring the SDGs and the Connect 2020 Agenda are **already being collected by ITU.**

- ❑ For several SDG ICT indicators, very **few countries** are reporting data (*Internet users, mobile phone ownership* and *ICT skills*).

❑ Countries are encouraged to **collect the data for the ICT indicators included in the SDG** monitoring framework, in particular those collected through household surveys.

Big data

- Conclusions:
  - Big data from the ICT sector could provide **useful alternative data sources** for measuring the informtion society and producing ICT indicators.

- Recommendations:
  - National stakeholders should consider collaborating to **explore the use of big data** for producing ICT indicators.
  - Stakeholders (Governments, NSOs, operators, Academia) interested in the partnering with ITU on the **big data project**, should contact ITU.

Other issues
Recommendations

- **Regional forums** on ICT measurement provide a useful platform for exchange on current and future topics in the Arab region and should be organized every 3 years.

- In addition, **technical trainings courses** on ICT statistics should be organized to enhance the capacity in countries. ITU is encouraged to develop certified online and face-to-face trainings in this field.

- Countries are encouraged to **participate in the annual ITU World Telecommunciation/ICT Indicators Symposium (WTIS)** which is the main global event to discuss emerging ICT trends and the role of measurement. WTIS 2017 will be held in **Tunisia** in the fourth quarter of 2017.

Thank you

For more information and data:
www.itu.int/en/ITU-D/statistics