



MINISTÈRE DE L'ÉCONOMIE NUMÉRIQUE
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Connecting the World



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ITU Regional Workshop on ICT Statistics for Africa

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How to report your data to ITU

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Data collection: practicalities

- Collection schedule is communicated every year to **all National Focal Points** (Ministry, Regulator and NSOs).
- **Online notification** with instructions is sent to national focal points responsible for the data reporting (for each questionnaire) as well as the ITU focal point.
- All questionnaires are **web-based**, except for the Long Questionnaire on ICT Access and Use by Households and Individuals (**Excel-based**).
- **Sample questionnaires and definitions are available on ITU website:** <http://www.itu.int/en/ITU-D/Statistics/Pages/datacollection/default.aspx#questionnaires>

Important that contact information is up-to-date

2018 ITU Questionnaire Schedule

Questionnaire	Launch	Open	Deadline
HH Short	14-Jan-2019	3 months	15-Apr-2019
WTI Short	14-Jan-2019	3 months	15-Apr-2019
ICT Prices	15-Mar-2019	2 weeks	30-Mar-2019
HH Long	15-Sep-2019	6 weeks	30-Oct-2019
WTI Long	15-Sep-2019	6 weeks	30-Oct-2019

Role of national statistical focal points (NFP)

- **Focal points** should be identified for ICT statistics **to coordinate** among national agencies and responsible for **compiling and replying** to ITU questionnaires and follow-up queries.
- Ideally, these should be **statistical experts and informed of latest developments**, including:
 - have the **statistical knowledge** to perform data quality assurance checks.
 - **participate** in ITU meetings, workshops and online expert groups.
- Depending on country context, NFPs may not always be the statistical experts; however, they would then **need to liaise and coordinate with experts internally.**

Role of national focal points: Best practices

- The **role of NFP should be institutionalized** and supported by internal coordination mechanisms.
- **Inform ITU** in changes of status and appointment of new national focal point.
- **Statistical advocacy:** promote ICT statistics for planning and monitoring among international, regional and national agencies.

ITU statistics: data verification (1/2)

Automated checks in online questionnaires:

- **Consistency checks**, e.g. fixed broadband subscriptions broken down by technology or speed should not exceed to total number of subscriptions.

Automated checks using an Excel macro in Long Questionnaire on ICT Access and Use by Households and Individuals:

- **Consistency checks**, e.g. total number of households with telephone does not exceed total number of households
- **Aggregation checks**, e.g. male + female = total individuals.
- **Format checks**, e.g. notes referenced in the different sheets should be explained in detail in the notes sheet.

ITU statistics: data verification (2/2)


Other checks performed (examples):

- **Assessment across years**
- **Assessment across countries**
- **Manual cross-checks** between administrative data and household data, e.g. between subscriptions and user data.
- **Format and unit checks**
- **Survey quality checks**
- **Checks of definitions**
- **Check with data from other sources**, e.g. operator's annual reports and other studies.

Questions are directed to national statistical focal points



Household long questionnaire: Macro to check data consistency (1/3)

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Questionnaire on Information and Communication Technology (ICT) Access and Use by Households and Individuals

<Double click> on top of the chapter to open it

- Contact information
- Instructions
- Survey information
- 1a ICT Access by urban/rural and household composition
- 2a ICT Usage by gender and urban/rural
- 2b ICT Usage by age and gender
- 2c ICT Usage by highest education level received and gender
- 2d ICT Usage by labour force status and gender
- 2e ICT Usage by occupation and gender
- Notes

<Double click> on "check data" to verify the consistency of your data

Check data ←

Enter country name and reference year of your survey, and then <save> file

Country: Year (YYYY): **Save**

Household long questionnaire: Macro to check data consistency (2/3)

Automated checks include:

- **Format checks** to ensure that all entered values are numbers
- **Total checks**, e.g. data for any indicator should not exceed the total in-scope population.
- **Aggregation checks**, e.g. male + female = total individuals or urban + rural = total country.
- **Sub-category checks**, e.g. individuals using a laptop should not exceed individuals using any kind of computer or individuals participating in social networks should not exceed individuals using the Internet.
- **Notes checks**, i.e. that notes are properly entered and labeled.

Household long questionnaire: Macro to check data consistency (3/3)

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	
{1a}	ICT Access by urban/rural and household composition)	*** Comparing TOTAL in row [11] with INDICATOR in row: [20] ***																		
		ERROR - Column: [E] - All households - TOTAL, see row [20] - . This number must be less than the total in row: [11]																		
{1a}	ICT Access by urban/rural and household composition)	[Household composition - has children under 15 - TOTAL] [URBAN] [RURAL]																		
		ERROR - Check horizontal total in Row: [26], Columns: [K] - [M] - [O] [Household composition - has children under 15 - TOTAL (174,635)] - [URBAN (1,583,203)] - [RURAL (16,312)]																		
{1a}	ICT Access by urban/rural and household composition)	[Urban] [URBAN] [URBAN]																		
		ERROR - Check horizontal total in Row: [26], Columns: [G] - [M] - [S] [Urban (351,549)] - [URBAN (1,583,203)] - [URBAN (193,225)]																		
{2a}	ICT Usage by gender and urban/rural)	*** Comparing TOTAL in row [10] with INDICATOR in row: [15] ***																		
		ERROR - Column: [I] - Gender - Female, see row [15] - . This number must be less than the total in row: [10]																		
{2a}	ICT Usage by gender and urban/rural)	*** Comparing TOTAL in row [10] with INDICATOR in row: [34] ***																		
		ERROR - Column: [E] - All individuals - TOTAL, see row [34] - . This number must be less than the total in row: [10]																		
{2a}	ICT Usage by gender and urban/rural)	[All individuals - TOTAL] [Gender - Male] [Gender - Female]																		
		ERROR - Check horizontal total in Row: [15], Columns: [E] - [G] - [I] [All individuals - TOTAL (107,888,368)] - [Gender - Male (51,676,996)] - [Gender - Female (562,113,702)]																		
{2b}	ICT Usage by age and gender)	*** Comparing TOTAL POPULATION in row [94] with TOTAL TARGET POPULATION (NUMBER OF IN-SCOPE INDIVIDUALS) in row: [10] ***																		
		ERROR - Column: [Q] - Age 25-74 - TOTAL, see row TOTAL POPULATION [94] - . This number must be higher than TOTAL TARGET POPULATION (NUMBER OF IN-SCOPE INDIVIDUALS) in row: [10]																		
		ERROR - Column: [U] - Female, see row TOTAL POPULATION [94] - . This number must be higher than TOTAL TARGET POPULATION (NUMBER OF IN-SCOPE INDIVIDUALS) in row: [10]																		

Reasons for data gaps

Data gaps present a serious challenge. Data gaps may arise because:

- lack of understanding of main authorities of the importance of collecting the data, i.e. no priority.
- the service provider does not have the data or does not respond to requests.
- lack of capacity or resources within NSOs to collect household data
- lack of coordination between data users and data producers at the national level

Addressing data gaps: within countries

Coordination among national stakeholders can identify and address gaps, e.g. by:

- carry out user needs and satisfaction surveys, asking about specific dimensions of data quality, such as, topics and concepts, detail of breakdown, timeliness and access
- getting feedback on statistical plans (NSDS)
- share data submissions, e.g. NSOs copy regulator and ministry when submitting to ITU.
- pool resources to address specific data gaps, e.g. to conduct ICT surveys

Addressing data gaps: ITU estimations

- In case of non-reporting, ITU uses **different methods to estimate indicators**
 - For inclusion in the IDI
 - To create regional and global totals
- **Historical data are used to the maximum extent.**
- **Methods include:** time series, regression models using GNI per capita, and models using mobile and fixed broadband subscriptions.
- **Cross-checks** are made over time and against other countries in the region and with similar levels of GNI per capita.
- **Other sources are also used for benchmarking**, e.g. surveys or estimates.

In case of severe lack of information, estimations may not be possible.

ITU Statistics: Dissemination

- **World Telecommunication/ICT Indicators database**
<http://www.itu.int/en/ITU-D/Statistics/Pages/publications/wtid.aspx>
- **IPB Data Visualization**
<https://www.itu.int/net4/ITU-D/ipb/>
- **ITU statistics website**
<http://www.itu.int/en/ITU-D/Statistics/Pages/stat/default.aspx>
- **ICT Eye**
<http://www.itu.int/net4/itu-d/icteye/RegionalOrg/WorldRegions.aspx>
- Publications:
 - **Measuring the Information Society Report** (Nov)
 - **ICT Facts and Figures** (Jul)
 - **ITU Yearbook of Statistics** (Dec)

THANK YOU

For more information:

<http://www.itu.int/ict>

and

indicators@itu.int