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| **Council 2019 Geneva, 10-20 June 2019** |  |
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| **Agenda item: ADM 19** | **Revision 1 to Document C19/10-E** |
| **3 June 2019** |
| **Original: English** |
| Report by the Secretary-General | |
| IMPLEMENTATION OF RESOLUTION 131 (rev. dubai, 2018) – MEASURING INFORMATION AND COMMUNICATION TECHNOLOGIES TO BUILD AN INTEGRATING AND INCLUSIVE INFORMATION SOCIETY | |

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| Summary  ITU develops international definitions, standards and methodologies to measure the information society and digital economy in close cooperation with other regional and international organizations and through its thematic Expert Groups. Data are collected from Member States, disseminated through the ITU World Telecommunication/ICT Indicators (WTI) database and analysed in the *Measuring the Information Society Report*. Training workshops are conducted to build capacity for data collection in Member States. This document reports on the implementation of Resolution 131 (Rev. Dubai, 2018) on *Measuring information and communication technologies to build an integrating and inclusive information society* during the year 2018. In addition, the document examines the necessary human and financial resources required to conduct ITU’s work in gathering, producing and publishing meaningful data, information, statistics and reports.  Action required  The Council is invited to **take note** of this report and **make decisions** as deemed necessary.  \_\_\_\_\_\_\_\_\_\_\_\_  References  [Resolution 131](https://www.itu.int/en/council/Documents/basic-texts/RES-131-E.pdf) (Rev. Dubai, 2018); Council documents [C18/96](https://www.itu.int/md/S18-CL-C-0096/en), [C18/105](https://www.itu.int/md/S18-CL-C-0105/en); [WTDC‑17 Resolution 8](https://www.itu.int/en/ITU-D/Conferences/WTDC/WTDC17/Documents/WTDC17_final_report_en.pdf) |

This report examines the necessary human and financial resources required to conduct ITU’s work in gathering, producing and publishing meaningful data, information, statistics and reports. It also presents an analysis of the impact resulting from amendments of Resolution 131 (Rev. Dubai, 2018) by the ITU Plenipotentiary Conference.

**1. Background**

1.1 ITU organizes annually the [World Telecommunication/ICT Indicators Symposium](https://www.itu.int/en/ITU-D/Statistics/Pages/events/wtis2018/default.aspx) (WTIS), which is the main global forum for telecommunication and information society measurements. ITU work on data and statistics is carried out though the Expert Groups on Telecommunication/ICT Indicators (EGTI) and the Expert Group on ICT Household Indicators (EGH).[[1]](#footnote-1) Since 2009, ITU publishes the Measuring Information Report. The Report features key telecommunication/ICT data and benchmarking tools to measure the information society, presents a quantitative analysis of the information society, and highlights new and emerging trends and measurement issues. The report also reports on the ICT Development Index (IDI) currently calculated on the basis of 14 indicators, revised from 11 indicators in 2017 by the Extra-ordinary session of the EGTI and EGH.

1.2 ITU actively [cooperates with international bodies](https://www.itu.int/en/ITU-D/Statistics/Pages/intlcoop/default.aspx) on statistical issues.

**2. Examination of revisions to Resolution 131 by ITU Plenipotentiary Conference (PP-18)**

A number of revisions to Resolution 131 were adopted at PP-18 that have an impact on the functioning and resource requirement of the statistics division.

**3. Assessment of resourcing related to ITU work on data and statistics**

3.1 Resolution 131 instructs the Secretary-General to examine the necessary human and financial resources required to conduct ITU’s work in gathering, producing and publishing meaningful data, information, statistics and reports, and inform the Council of the results of this study.

3.2 Currently, the ITU ICT Data and Statistics Division consists of five professionals and two administrative staff (including one statistical assistant), responsible for data collection, verification and entry; design, formatting and dissemination across a variety of media; analysis of trends; delivery of training, and international statistical coordination and cooperation. The low staffing of the ITU Statistics team and low budgetary allocation to its activities is a challenge not only in implementing this resolution but also in carrying out its regular work.

3.3 ITU work on ICT statistics is often compared with that of other international organizations. However, the resources allocated by those organizations differ from resources available in ITU for similar activities. ITU statistical work is relatively under-staffed compared to the human resources allocated to statistical activities in other international organizations:

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| --- | --- | --- | --- |
| **Organization** | **Number of staff responsible for statistics** | **Total staff** | **Statistics staff as % of total** |
| International Monetary Fund (IMF) | 190 | 2,400 | 7.9% |
| Food and Agriculture Organization (FAO) | 100 | 3,317 | 3.0% |
| World Health Organization (WHO) | 100 | 5,541 | 1.8% |
| Organization for Economic Co-operation and Development (OECD) | 85 | 2,500 | 3.4% |
| United Nations Educational, Scientific and Cultural Organization (UNESCO) Institute for Statistics (UIS) | 70 | 2,051 | 3.4% |
| International Labour Organization (ILO) | 28 | 2,337 | 1.2% |
| World Trade Organization (WTO) | 23 | 625 | 3.7% |
| United Nations Conference on Trade and Development (UNCTAD) | 20 | 470 | 4.3% |
| **International Telecommunication Union (ITU)** | **7** | **749** | **0.9%** |

Sources:   
<https://unstats.un.org/unsd/accsub-public/members.htm>,   
<https://www.unsystem.org/content/total-staff-organization>,   
<http://www.worldbank.org/en/news/infographic/2015/10/27/where-is-staff-from>, <https://www.wto.org/english/thewto_e/secre_e/intro_e.htm>, <https://unctad.org/en/PublicationsLibrary/osgciomisc2017_en.pdf?user=17>, <http://www.oecd.org/about/whodoeswhat/>, <https://www.imf.org/external/about/staff.htm>

**4. Recommendations based on resource requirement assessment**

4.1 The successful implementation of a statistical program is heavily dependent on strong IT support. There is an urgent need for a dedicated IT professional to support data visualization, introduction and maintenance of IT-related tools (e.g. the new ICT Eye tool) and management of the statistical database.

4.2 There is also an urgent need for a statistical assistant for dispatching and processing data questionnaires from countries, including follow up, verification and data entry.

4.3 Big Data is emerging as a complement to official statistics.[[2]](#footnote-2) Many developing countries have limited financial, technical and human resources to utilize Big Data. There is a threat of a new digital divide between countries using Big Data for official statistics and those that cannot with serious consequences for the breadth, timeliness and relevance of statistical data. ITU can reduce this risk in several ways. One is developing its own expertise in the area including pilots using Big Data to supplement data collection activities. Another is participating in initiatives such as the GSMA’s Big Data for Social Good and the UN’s Big Data for Sustainable Development. The expertise gained will support capacity building in countries for enhancing their ICT statistics using Big Data techniques.

4.4 There is need for one additional statistician to collect, verify, compile, and ensure data quality for both supply-side (administrative) and demand-side (survey) indicators. This will strengthen the capacity for ITU to fully implement PP-18 resolution 131, and WTDC-17 resolution 8.

4.5 In summary, the following additional staff are required to support PP Resolution 131 and improve statistical capacity in ITU:

* 1 IT specialist to develop and support automated data collection, entry and dissemination; database management; and visualization tools at P3 level.
* 1 statistical assistant at G5 level.
* 1 data scientist (for big data analytics, machine learning, artificial intelligence, etc.) at P4 level.
* 1 statistician at P3 level.

4.5.1 The following table provides costing for the additional resources required to augment current staffing levels.

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|  | ***CHF (‘000)*** | |
|  | **Annual cost** | **2020-2023 costs** |
| 1 statistician at P3 | 132 | 528 |
| 1 statistical assistant G5 | 101 | 404 |
| 1 data scientist at P4 | 157 | 628 |
| 1 IT specialist at P3 | 132 | 528 |
| **Total** | **522** | **2088** |

4.5.2 These figures were not included in the draft budget for 2020-2021.

**5. Conclusion**

As countries work towards the attainment of the Sustainable Development Goals (SDGs) by 2030, measurement of the Information Society and Digital Economy is of critical importance given the catalytic role ICTs play in the social and economic development of countries. ITU’s work on ICT indicators requires continuous improvement in terms of data collection, analysis, and reporting in order for it to remain valuable to countries as well as the private sector, other international agencies and the research community.

*Information on the implementation of PP-18 resolution 131 is contained in the document submitted to the Telecommunication Development Advisory Group (TDAG) on ICT data and statistics and is available in the Annex. The document is referenced,* [*TDAG-19/19*](https://www.itu.int/md/D18-TDAG24-C-0019/en)*.*

***Annex:*** *1*

Annex

Report from the BDT on ICT Data and Statistics 2018

**Summary:**

This document provides a summary of the work carried out on ICT Data and Statistics in the period following the last TDAG meeting in 2018. The report covers data collection and dissemination, methodology development, data analysis, and capacity building.

**Action required:**

TDAG is invited to note this document and provide guidance as deemed appropriate.

**References:**

WTDC Resolution 8 (Rev. Buenos Aires, 2017); PP Resolution 131 (Rev. Dubai, 2018).

1. **Introduction**

The report is based on ITU’s work related to the development and collection of internationally comparable ICT statistics. This includes data collection and dissemination, methodology development, data analysis, and capacity building.

1. **Data collection and dissemination**

ITU continued to collect internationally comparable ICT statistics through three questionnaires, the World Telecommunication Indicators (WTI) questionnaire, the questionnaire on access and use of ICTs by households and individuals (household questionnaire) and the ICT Price Basket (IPB) questionnaire. These data are disseminated twice per year through the ITU World Telecommunication/ICT Indicators Database which, in 2018, was released in January and July. The July edition was accompanied by the ITU/World Bank joint publication “[The Little Data Book on Information and Communication Technology 2018](https://www.itu.int/en/ITU-D/Statistics/Documents/publications/ldb/LDB_ICT_2018.pdf)”. At the end of 2018, world and regional estimates on key ICT indicators were released, including data on percentage of population using the Internet which surpassed 50% by end of 2018. These data enable users to take informed decisions in the field of ICT, based on internationally comparable statistics.

1. **Methodology development**

In this area, the focus was on ensuring the achievement of improved methodologies and international standards on ICT statistics through the work of the Expert Group on Telecommunication/ICT Indicators (EGTI) and the Expert Group on ICT Household Indicators (EGH). Meetings of EGTI and EGH took place in Geneva, Switzerland, in October 2018. Nearly 130 statistical experts from ICT ministries, national statistical offices telecommunication regulators, and international organizations from 54 countries attended the meetings and discussed how to better track access and use of ICTs by households and individuals, and how data from ICT service providers could be used to inform policy-makers and regulators, and help monitor and drive ICT development.

BDT also successfully organized the [16th World Telecommunication/ICT Indicators Symposium (WTIS-18)](https://www.itu.int/en/ITU-D/Statistics/Pages/events/wtis2018/default.aspx) in Geneva, which attracted more than 320 participants from 85 countries, representing public and private organizations including ministries, regulators, national statistical agencies, universities and research institutions, telecommunication operators, ICT firms, and regional and international organizations. WTIS-18 highlighted the important work that ITU is carrying out in terms of ICT statistics and the role of WTIS in bringing together ICT data producers and users, and the opportunities it provides in terms of discussing ICT measurement issues, sharing experiences, and learning from each other. The Symposium highlighted the continued need for high-quality, timely, and disaggregated ICT data to assess the impact of telecommunications, ICTs and emerging technologies on social and economic development. The Symposium addressed the question on why data analysis is important for assessing the economic and social impact of ICTs, and how this should feed into policy, noting that data should inform, but not drive policy. The reports by the Expert Group on Telecommunication/ICT Indicators (EGTI) and the Expert Group on ICT Household Indicators (EGH) were also presented and endorsed by the Symposium.

1. **Data analysis**

The [Measuring the Information Society Report 2018 Volume 1](https://www.itu.int/en/ITU-D/Statistics/Pages/publications/misr2018.aspx) was launched during WTIS, featuring chapters on ICT trends, ICT skills, revenue and investment, and ICT prices. One of the key findings of the report is that more than half the world’s population is now online. This is driven by sustained growth in almost all of the access and use indicators collected by ITU and presented in the report. The report however noted that a lack of ICT skills may be a limiting factor for further growth. It highlighted that globally, telecommunication revenues make an important contribution to the economy but have been declining recently, because mobile users are moving from the traditional voice and SMS communication to social media communications and use of over-the-top (OTT) applications. ICT prices related to mobile cellular, mobile broadband and fixed broadband were also presented. Overall, ICT prices are declining as subscriptions to ICT services are increasing. However, ICT prices vary between regions and within regions, and prices remain high in some developing countries and LDCs.

1. **Capacity building**

BDT increased the capacity and skill-sets of producers of telecommunication/ICT statistics to carry out data collections at the national level based on international standards and methodologies via regional workshops for the CIS region (Almaty, Kazakhstan, 31 January-1 February), Africa (Lilongwe, Malawi, 20-21 March), Arab States (Manama, Bahrain, 26-27 March) and the Pacific (Nadi, Fiji, 22-23 November). National workshops were conducted in Malawi (22-23 March), Benin (2-3 May), Chad (12-15 November) and Burundi (16-20 December) all aimed at strengthening the capacity of national stakeholders and to discuss in greater detail the methodology to ICTs data and improvement of national coordination. Furthermore, BDT assisted the SADC Secretariat in conducting a Regional Capacity Building Workshop on ICT statistics (Gaborone, Botswana, 10-14 December) in the framework of the implementation of Phase 1 of a SADC ICT Observatory. In 2019, a number of capacity building on ICT data and statistics are planned. These are aimed at strengthening capacities of Member States to collect quality and timely data.

1. **International cooperation**

ITU continues to be an active member of the Partnership on Measuring ICT for Development and together with UN Conference on Trade and Development (UNCTAD) and the UNESCO Institute for Statistics (UIS) is one of the three members of its Steering Committee. Over the years, the Partnership has grown to a total of 14 partner organizations, with the ILO joining in 2014. The Partnership has been very active in tracking the progress of the WSIS and SDG Targets and has also taken a lead role in increasing awareness about the importance of ICT for development and in international ICT monitoring.

BDT also collaborated with the Argentine G20 Presidency and the OECD in producing the "G20 Toolkit for Measuring the Digital Economy". The toolkit brings together different methodological approaches and indicators that may be used to monitor the digital transformation, and highlights critical gaps and challenges that G20 countries and international organisations involved in digitalization measurement could consider for further work.

Cooperation between OECD, Eurostat, and ITU remains strong, with representatives from these organisations attending each other’s meetings.

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1. <https://www.itu.int/en/ITU-D/Statistics/Pages/events/egh2018/default.aspx>; and   
   <https://www.itu.int/en/ITU-D/Statistics/Pages/events/egti2018/default.aspx> [↑](#footnote-ref-1)
2. ITU launched a pilot big data projects in six countries seeking to explore the possibility of getting big data to complement current statistical data sources. For more details:   
   <https://www.itu.int/en/ITU-D/Statistics/Documents/events/wtis2016/BigData_Tiru.pdf> [↑](#footnote-ref-2)