11th Meeting of the ITU Expert Group on Telecommunication/ICT Indicators (EGTI)

& 8th Meeting of the Expert Group on ICT Household Indicators (EGH)

Joint Session "ICT Development Index 2020: A proposal"

14 September 2020 – 13:00-16:00 (virtual format)

DRAFT SUMMARY

1. The 11th Meeting of the ITU Expert Group on Telecommunication/ICT Indicators (EGTI) and 8th Meeting of the ITU Expert Group on ICT Household Indicators (EGH) took place in fully virtual format from 14 to 18 September 2020. A joint session of both expert groups on the ICT Development Index (IDI) was held on 14 September 2020.

2. There were 378 participants [1] attending the meeting, including experts from regulators, telecommunication operators, ministries and national statistical offices from 99 countries, as well as ITU-D Sector Members, other UN agencies and regional organizations. Experts from the three sectors of ITU also attended the meeting, as did from ITU-D Regional Offices.

3. The meeting on the IDI was chaired by Mr. Alexandre Barbosa, Head of the Regional Center for Studies on the Development of the Information Society at the Brazilian Network Information Center.

4. In her opening remarks, Mrs. Doreen Bogdan Martin, Director of BDT reminded the participants that ITU had not been able to release the IDI since 2017 when it was revised from 11 to 14 indicators. She summarized the specific reasons for this: lack of data in general, insufficient data quality for one indicator, and a methodological issue with another indicator.

5. The BDT Director explained that in June 2020, ITU held a Virtual Consultation of Councillors and the Secretariat requested guidance from the Council regarding the ongoing implementation of the Plenipotentiary Resolution 131 with respect to the IDI and referred to Council Document 62 and Information Document Number 17 prepared for that occasion. The consultation encouraged the Secretariat to work with the Expert Group on the development of an index based on a robust, sound, and scientifically proven methodology with a view of publishing an accurate index as soon as possible taking into account Resolution 131 (Rev. Dubai 2018).

6. She explained that the Secretariat had been working throughout the summer to prepare a proposal for the IDI 2020. The proposal builds on the revised IDI and it does address its issues. She explained that the background document containing the proposal had been posted online and shared with the membership via a Circular Letter. A series of regional information sessions

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[1] This is a provisional figure referring to the overall EGTI and EGH meetings.

had been also organized in the week prior to today's session, attracting over 500 participants.

7. She then explained that should there be support for the proposed way forward, the Secretariat could commit to releasing an IDI by December 2020. If that were not the case, she would need to revert back to the next Council to ask for further guidance.

8. She mentioned that the Secretariat would continue to explore ways of measuring the impacts of ICTs on economies and societies and in this context the initial consultations held last spring such as linking digital technologies to the achievement of the Sustainable Development Goals is a promising avenue and that approach was supported by many Member States.

9. The Chair thanked the ITU Secretariat for their work on statistics, saying that it had strived to fulfill the challenge of revising the IDI, based on the principles of independence, impartiality, and fundamental principles of official statistics as defined in the United Nations General Assembly Resolution 68/261. He remarked that this session was an opportunity to agree with this proposal so that the Secretariat would be in a position to publishing the index again.

10. Next, Mr. Geiger, Head of the ITU ICT Data and Analytics Division at ITU, introduced the proposal. He explained that the Secretariat had considered several developments since 2017. First, there is a set of 14 indicators that were adopted by an extraordinary meeting of the EGTI/EGH in 2017. Second, the revised set of 14 indicators did not allow for the computation of a methodologically sound and robust index. Third, most Member States still would like an index to be released. Fourth, based on consultations earlier this year, developing an entirely new framework would take a lot of time and effort. Finally, the Virtual Council of Councillors held last June encouraged the Secretariat and the Expert Group to find a solution.

11. Based on these conclusions, the ITU Secretariat decided to address the issues that prevented the computation of the revised IDI. Mr. Geiger reminded that if there could be an agreement on the proposal, the Secretariat would be in the position of releasing an index in 2020. He explained that the solution is called the IDI 2020, to distinguish it from the original IDI of 2009 and the set of revised indicators adopted in 2017, referred to as the Revised IDI.

12. He explained that the IDI 2020 retains the same objective and the very same structure as the two predecessors. Infrastructure, access, and skills are preconditions for ICT to have a positive impact on economies and societies. These three factors define the framework of the IDI 2020, like in the two previous versions of the IDI.

13. The IDI 2020 addresses the specific issues that prevented the release of the Revised IDI. The key principle that guided the development of the solution was to only fix those specific issues; the Secretariat only made the necessary changes to allow for a robust and sound index to be produced.

14. The IDI 2020 comprises 11 indicators distributed across the three subindices. Five indicators in the Access subindex, three in the Use subindex, and three in the Skills subindex. Eight indicators are from ITU and three are from UNESCO. That was already the case with the previous iterations.

15. Mr. Geiger reminded that the objective of the IDI is not to assess directly the economic and social impacts of ICTs. Measuring such impacts is complex for many reasons. Initial consultations about the possibility of looking at digital technologies and their impact and contribution to the SDGs seemed like a promising avenue that would be supported by many Member States, but that is not the objective of the IDI.

16. Mr. Geiger then introduced the changes between the IDI 2020 and the Revised IDI of 2017. Ten indicators that were included in the set of 14 indicators in 2017 are still there, strictly unchanged. He continued by mentioning the four specific changes that were made to the 14 indicators: one concerns the fixed broadband subscription indicator, whose methodology is adapted; two indicators, mobile phone ownership and the proportion of individuals with ICT skills, are dropped due to insufficient data; and one indicator, fixed-broadband Internet traffic, is dropped due to insufficient quality.

17. Mr. Geiger introduced the methodology for normalizing the indicators and aggregating them, highlighting that there was virtually no change from previous versions. He presented the goal posts that would be used to normalize each of the 11 indicators of the IDI 2020. He then presented the methodology for aggregating the indicators and the sub-indices. He explained that within each subindex, a simple average is used to aggregate the scores and that for the aggregation from the subindex level to the overall level, the same weighting scheme is used as in previous iterations of the IDI: 40% put on the access, 40% put on the use, and 20% put on the skill subindex.

18. He then detailed the specific issues with the revised IDI and how they were addressed. First is the data availability issue. If the revised IDI were computed for 2019, only 42% of data would be available, meaning that almost 60% of the data points would need to be estimated. He explained that this was not acceptable and that it was impossible to produce any estimates that are reliable based on such a low share of existing data.

19. To address this issue, the Secretariat took three steps. The first step was to extend to three years the period of reference for which it considers data to be available. Only if no data point is available for a specific indicator for a country for the past three reference years, then the data is considered as missing. The second step was to exclude indicators with less than 50% data availability. Mobile phone ownership with 36% data availability, and ICT skills with 20% data availability, are dropped, despite their relevance. He insisted that these indicators like all the other ICT indicators not included in the IDI should still be collected. The third step was to only include economies with 50% data availability (four of the eight ITU indicators needed for inclusion). With this approach, approximately 135 economies could be covered in the IDI. Data availability would be 87%. Mr. Geiger then detailed several initiatives by the Secretariat to improve the availability and quality of ICT statistics around the world.

20. The second issue with the revised IDI concerned fixed broadband subscriptions. The revised IDI contains an indicator called "fixed broadband subscriptions by speed tier as a percentage of total fixed broadband subscriptions" that captures the average speed of fixed-broadband subscriptions. That indicator does not consider the number of subscriptions in the country. This leads to some counterintuitive results. Mr. Geiger provided several examples and referred to the background document for additional examples.

21. To address this issue, the indicator is divided by population instead of dividing by total fixed broadband subscriptions. This approach produces much sounder results.

22. He then provided several reasons why fixed-broadband penetration should be included in the IDI: the objective of the index is to measure the ICT availability in the country. Second, fixed broadband is important for highspeed intensive applications. Mobile broadband is not yet a substitute for all applications. Fixed broadband is used by governments services, education, businesses, and most households to distribute Wi-Fi signals. Furthermore, some of the mobile broadband traffic is offloaded to the fixed network to avoid congestion.

23. Mr. Geiger explained that population was a better denominator than households. Dividing subscriptions by households would make the indicator redundant because of the inclusion of "households with Internet access" in the index. Secondly, the fixed broadband indicator includes all subscriptions, not just household connections. Therefore, the numerator and denominator are not comparable. Thirdly, a very practical problem is the lack of available and comparable household data globally.

24. For the last issue, Mr. Geiger explained that the fixed-broadband Internet traffic indicator included in the revised IDI does not have sufficient quality because it is a new indicator for which the final methodology was adopted only in 2019. Despite its relevance, this indicator was dropped from the proposed IDI 2020.

25. Mr. Stephen Bereaux, Deputy Director of BDT, explained that the proposal for the IDI 2020, that builds on the revised IDI was consistent with Council's requests to the Secretariat and the Expert Group. The proposal provided an opportunity for publishing an index in 2020 if the Expert Group agreed. He said that the adjustments made ensured that the proposal was sound and provided a valid and accurate index within the timeframe requested by Council. If the group were unable to agree on the proposal, the Secretariat would potentially need to seek further guidance from Council. He urged members to adopt a pragmatic approach. This approach was intended to be coupled with appropriate initiatives by ITU to aid Member States to collect reliable and accurate data.

26. In the discussions that ensued, many participants welcomed the efforts by the Secretariat to meet their demand for an index to be released this year and expressed support for the proposal. Some participants, who supported the proposal, made suggestions for improvement regarding specific elements of the proposal.

Fixed-broadband subscriptions

27. Several participants expressed reservations regarding the methodology used to compute the indicator fixed-broadband subscriptions. Although they agreed on dividing the indicator by a demographic measure, they argued for the number of households to be used instead of population.

28. The Secretariat explained that from a practical point of view, data on household was too patchy and not comparable across countries. Data on household is not collected every year and for all countries by any UN agency. In response to a comment by some participants, the Secretariat

explained that even though it collects indicators derived from ICT household surveys, it does not collect the total number of households in the country. The Secretariat only receives from NSOs the number of "in-scope" households, that is the number of households that participated in the survey, which does not correspond to the total number of households in the country. The Secretariat cautioned that the lack of data on the number of households would mean that the indicator would be unavailable for many countries, with the risk for those countries to fall below the availability threshold for inclusion in the index.

29. A suggestion was made that to ensure comparability between the numerator and the denominator the total number of residential fixed-broadband subscriptions should be divided by the number of households. The Secretariat explained that disaggregated data on residential and business subscriptions are not available for most countries.

30. Some participants suggested that the way the indicator was constructed meant that the objective was that every person should have a fixed-broadband subscription. The Secretariat clarified that this was not the case, saying that the reference value was set to 40 per 100 inhabitants. This value takes into consideration the access needs not only of households, but also of businesses and government.

31. A few participants were against the inclusion of the indicator, on the ground that deploying mobile broadband was less capital intensive than fixed broadband. One said that it was not worthwhile comparing countries based on fixed-broadband subscriptions as this is not a growing technology as compared to mobile. She called for the Secretariat to emphasize less on fixed networks parameters and relying more on mobile telephony and mobile broadband parameters which reflect emerging technologies and rollout trends across the globe. The Secretariat reminded the reasons given in the presentation: the objective of the index is to measure the ICT availability in the country. Second, fixed broadband is important for highspeed intensive applications. Mobile broadband is not yet a substitute for all applications. Fixed broadband is used by governments services, education, businesses, and most households to distribute Wi-Fi signals. Furthermore, some of the mobile broadband traffic is offloaded to the fixed network to avoid congestion. The Secretariat also mentioned that an index should be relevant for all countries.

32. A participant suggested to refine the indicator by refining the measure by assigning more weight to connections above 100Mbps.

Bandwidth

33. A few participants questioned the inclusion of the indicator International bandwidth, saying that it rewarded large data hubs disproportionately. Some also argued that non-English speaking countries with a lot of local content or with local IP exchanges were penalized. Some members said the definition was problematic. The Secretariat explained that bandwidth was different from Internet traffic. It also explained that the normalization of this indicator dealt with 'outliers' by using a much lower reference value. The Secretariat also reminded that this indicator was part of the revised IDI already and that the key principle that had guided the

development of the proposal had been to make as few changes as possible. This notably implied that the inclusion of new indicators, including domestic broadband, was not considered.

Skills

34. Some members regretted the exclusion of the ICT skills indicator which was part of the revised IDI. Some highlighted that the three remaining skills-related indicators, all sourced from UNESCO, had some issues. The Secretariat explained that data availability for the ICT skills indicator was insufficient with only 20% of countries having data for all nine skills in at least one of the past three years. And only 43% of countries had data for at least one skill. The indicator is derived from ICT household surveys, which are not administered in all countries, thus explaining the low coverage. The Secretariat agreed that the indicator was extremely relevant and should continue to be collected. It acknowledged that UNESCO indicators were imperfect proxies of the general skillset of the population and its capacity to leverage ICTs. In addition, these indicators were included in the original IDI and in the revised IDI.

Households with a computer

35. Regarding the indicator Households with a computer, some participants said that the definition of computer should be broadened to include mobile devices. The Secretariat explained that while smartphones can be a substitute for some basic applications, computers remain the benchmark for many applications. Many tasks in the workplace can only be performed on a computer. Many websites and online services often offer limited features on mobile devices. It also reminded the participants that the definition of "computer" includes tablet devices. It also pointed that the indicator "Household with Internet access" measures the share of households in which at least one member connects to the internet *regardless* of the device used. Expanding the definition for computers would therefore make the two indicators redundant.

Methodological aspects

36. Participants sought methodological clarifications for the computation of some indicators as well as the normalization and aggregation of indicators, including the reference values for normalizing certain indicators, the weights applied to each speed tier for the fixed broadband indicator, and the weight assigned to each mobile network technology. The Secretariat clarified these aspects, referring to the presentation and to the background document which showed the reference values and the weighting scheme. It reminded participants that the methodology for computing, normalizing, and aggregating the indicators was the same as in previous iterations of the IDI. It confirmed that the weight for each sub-index was the same as before, namely 40% weight on Access, 40% on Use and 20% on Skills. A participant proposed a more refined mobile broadband indicator with a weighting scheme that would assign more weight to faster connections, like the fixed-broadband indicator. Another participant called for a differentiated approach that considers the different geographical, size and development features of countries, which pose different challenges.

Scope

37. Some participants suggested some additional concepts to be covered, including affordability. For this specific concept, the Secretariat reminded that the key principle that guided the development of the proposal had been to use the revised IDI as a starting point and to only fix those issues that prevented the publication of the revised IDI. It recognized that affordability obviously matters for ICT, but that in the context of the IDI, affordability is to be considered as an explanatory variable of ICT use.

Governance and process

38. There were a few questions from participants regarding the process and governance. Two participants request not to rush a decision on the IDI. One participant wanted to know until when the IDI 2020 would be published in case it was adopted, when it would be replaced by an SDG index, and called for a clear future direction. He said that the proposed IDI failed to achieve the goal that the Expert Groups tried to attain in 2017 with the revised version, which is to measure the actual progress of ICT development. Another participant proposed that a new Steering Group of Member States be formed on a voluntary basis to navigate the way forward, while another participant questioned the legitimacy of the Expert Group and requested that matters related to the index be reported to and decided by Council.

39. Towards the end of the meeting, the Deputy Director of the BDT reminded that an agreement today would mean that the Secretariat would be in the position to publish an index in 2020. Following his intervention, as time ran out, the Chair closed the session before a conclusion could be reached.

Consequently, on 23 September 2020, a Circular Letter ([BDT/DKH/IDA/060](BDT/DKH/IDA/060)) was sent to invite all the participants to attend a follow-up a meeting on the ICT Development Index on 29 September 2020.