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|  | | **28 May 2021** | |
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| Chairman of ITU-D Study Group 1 | | | |
| Revised text of Question 1/1 submitted for TDAG's endorsement  and membership approval | | | |
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| **Summary:**  This document proposes updates to the terms of reference for Question 1/1 using inputs from ITU-D Study Group 1 contribution [**SG1/454**](https://www.itu.int/md/D18-SG01-C-0454/).  **Action required:**  TDAG is invited to note this document.  **References:**  [SG1/454](https://www.itu.int/md/D18-SG01-C-0454/) | | | |

**STUDY GROUP 1**

QUESTION 1/1

**Strategies and policies for the deployment of broadband in developing countries.**

1. **Statement of the situation or problem**

Broadband technologies are transforming fundamentally the way we live. Broadband infrastructure, applications and services offer important opportunities for boosting economic growth, enhancing communications, improving energy efficiency, safeguarding the planet and improving people’s lives.

Broadband access has had a significant impact on the world economy.

**[[1]](#footnote-2)**Rapid evolution and new business opportunities are driving rapid but uneven growth in digital technologies. [[2]](#footnote-3)According to ITU data, 2019 marked the first full year when more than half the world begun to participate in the global digital economy by logging onto the Internet. The latest ITU data show that some 49 per cent of the world’s population currently remain unconnected (ITU, 2020 estimates).

The COVID-19 Pandemic has also restated the importance of diverse ICTs in ensuring connectivity as is illustrated by insights shared on the Reg4Covid platform[[3]](#footnote-4).

As noted in [SG1 Chairperson’s report](https://www.itu.int/md/D18-TDAG25.2-C-0012/en) (annex 8) to TDAG virtual meetings from 2 to 5 June 2020, and is recognized in several instances and reports of study Question 1/1 of the ITU-D study period 2018-2021, that the question has to continue for the next study period, and the topics of interest ato be reflected in the next study period;

* Policies, strategies and regulatory aspects of broadband
* Broadband Access technologies
* Financing and investment aspects of broadband
* COVD-19 and other pandemics on broadband networks
* Digital Transformation/Infrastructure
* Co-deployment & sharing broadband infrastructure with other infrastructural networks

**2. Question or issue for study**

* 1. ***Continuing topics from previous study period***

1. Policies and regulations that promote increased high-speed, high-quality broadband network connectivity in developing countries.
2. Effective and efficient ways to fund increased broadband access for the unserved and underserved.
3. Ways to remove practical and regulatory barriers to broadband infrastructure deployment and investment, and best practices for improving cross-border connectivity and SIDS' connectivity challenges.
4. The regulatory and market conditions necessary to promote deployment of broadband networks and services, including, as appropriate, the establishment of asymmetric regulation for operators with significant market power (SMP), such as local loop unbundling, if required, for such SMP operators, and organizational options for national regulatory authorities resulting from convergence.
5. Promoting incentives and an enabling regulatory environment for the investments required to meet the growing demand for access to the Internet generally, and bandwidth and infrastructure requirements in particular, for delivering affordable broadband services to meet development needs, including consideration of public, private and public-private partnerships for investment.
6. Methods to implement affordable and sustainable broadband networks, including the transition from narrowband to high-speed, high-quality networks and interconnection and interoperability features.
7. Demand-side factors and practices to generate and increase the usage of ICT devices and services.
8. Factors influencing the effective deployment of wireline and wireless, including satellite, broadband access technologies, including backhaul considerations.
9. Methodologies for migration planning and implementation of broadband technologies, taking into account existing networks, as appropriate.
10. Trends in the various broadband access technologies and deployment and regulatory considerations.
11. National digital policies, strategies and plans which seek to ensure that broadband is available to as wide a community of users as possible.
12. Flexible, transparent approaches to promoting robust competition in the provision of network access.
13. Co-investment and the co-location and shared use of infrastructure, including through active infrastructure sharing.
14. Licensing approaches and business models for covering remote and rural areas that more effectively integrate the use of terrestrial, satellite, backhaul and submarine telecommunication infrastructure.
15. Holistic universal access and service strategies and financing mechanisms, including universal service funds, for both network expansion and connectivity for public
    1. ***New topics for this study period***
16. Analysis of trends in the data traffic increasing, including investigation into whether the overall increase in data traffic prompted by the prevalent telework, e-education among others, will become new normal in the post-COVID world;
17. Policies and regulations to maintain the QoS (Quality of Service: latency, download speed, upload speed) of the network with increased data traffic;
18. Analysis of the impact of the expected delay in the deployment of advanced telecommunication infrastructures, such as 5G and optical fiber caused by the COVID-19 pandemic, and the consequent economic downturn as well as technological alternatives complementary to the existing network to accommodate increased data traffic;
19. Demand-side measures to increase the affordability of broadband services, including direct subsidies to consumers and supply-side measures to help operators by easing regulations and providing financial incentives, including flexible spectrum management and direct subsidies to operators;
20. National digital policies, strategies, and plans which seek to accelerate the deployment of advanced networks along with the promotion of e-education, e-health, and telework after the COVID-19 pandemic.
21. Co-deployment &sharing broadband infrastructure with other infrastructural networks

**3. Expected outputs**

Revision of the Question 1/1 Final Report for ITU-D study period 2018-2021, as appropriate.

**4. Timing**

Annual progress reports will be presented to Study Group 1 in 2022, 2023 and 2024. Deliverables set in Section 3 could be sent for Study group 1 for approval on readiness without waiting for the end of study period.

**5. Proposers/sponsors**

ITU Telecommunication Development Sector (ITU-D) Study Group 1 proposed the continuation of this Question as modified herein.

**6. Sources of input**

1. Results of related technical progress in relevant ITU-R and ITU-T study groups.
2. Contributions from Member States, Sector Members and Associates and from relevant ITU-R and ITU-T study groups, and other stakeholders.
3. Interviews, existing rports and surveys should also be used to gather data and information for the finalization of a comprehensive set of best-practice guidelines.
4. Material from regional telecommunication organizations, telecommunication research centres, manufacturers and working groups should also be used, in order to avoid duplication of work.
5. ITU publications, reports and Recommendations on broadband access technologies.
6. Relevant output and information from study Questions related to ICT applications.
7. Relevant inputs and information from BDT programmes related to broadband and the different broadband access technologies.

**7. Target audience**

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| **Target audience** | **Developed countries** | **Developing countries** |
| Telecom policy-makers | Yes | Yes |
| Telecom regulators | Yes | Yes |
| Service providers/operators | Yes | Yes |
| Manufacturers | Yes | Yes |
| Consumers/end users | Yes | Yes |
| Standards-development organizations, including consortia | Yes | Yes |

**a) Target audience**

All national telecom policy-makers, regulators, service providers and operators, especially those in developing countries, as well as manufacturers of broadband technologies.

**b) Proposed methods for implementation of the results**

The results of the Question are to be distributed through ITU-D interim and final reports. This will provide a means for the audience to have periodic updates of the work carried out and to provide input and/or seek clarification/more information from ITU-D Study Group 1 should they need it.

**8. Proposed methods of handling the Question or issue**

Close coordination is essential with ITU‑D programmes, and other relevant ITU‑D study Questions, and with ITU‑R and ITU‑T study groups.

**a) How?**

1) Within a study group:

– Question (over a multi-year study period) ☑

2) Within regular BDT activity:

– Programmes ☑

– Projects ☑

– Expert consultants ☑

3) In other ways – describe (e.g. regional, within other   
organizations, jointly with other organizations, etc.) ☑

**b) Why?**

The Question will be addressed within a study group over a four-year study period (with submission of interim results), and will be managed by a rapporteur group. This will enable Member States and Sector Members to contribute their experiences and lessons learned with respect to policy, regulatory and technical aspects of the migration from existing networks to broadband networks.

**9. Coordination and collaboration**

The ITU-D study group dealing with this Question will need to coordinate with: relevant ITU-R and ITU-T study groups; the relevant outputs from other ITU-D Questions; relevant focal points in BDT and ITU regional offices; coordinators of relevant project activities in BDT; experts and experienced organizations in this field.

**10. BDT programme link**

Links to BDT programmes aimed at fostering the development of telecommunication/ICT networks as well as relevant applications and services, including bridging the standardization gap.

11. Other relevant information

As may become apparent within the life of the Question.

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1. ITU Statistics (<http://www.itu.int/ict/statistics>) [↑](#footnote-ref-2)
2. The State of Broadband 2019 Broadband as a Foundation for Sustainable Development, <https://www.itu.int/dms_pub/itu-s/opb/pol/S-POL-BROADBAND.20-2019-PDF-E.pdf> [↑](#footnote-ref-3)
3. <https://reg4covid.itu.int/?page_id=59> [↑](#footnote-ref-4)