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| **Logo, company name  Description automatically generated** | A close up of a sign  Description automatically generated**World Telecommunication Development Conference (WTDC-22)**  **Kigali, Rwanda, 6-16 June 2022** | |
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| PLENARY MEETING | | **Addendum 26 to Document WTDC-22/24-E** |
|  | | **2 May 2022** |
|  | | **Original: English** |
| Member States of the Inter-American Telecommunication Commission (CITEL) | | |
| Advancing broadband connectivity and adoption: Revisions to ITU-D Question 1/1 on broadband deployment and proposal for a new ITU-D study question | | |
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| **Priority area:** - Thematic Priorities, Action Plan, Regional Initiatives and SG Questions  **Summary:**  By this proposal, CITEL suggests a framework for the ITU-D study groups to advance the conference theme to connect the unconnected through their work in the next four-year cycle. If adopted, we believe this approach will best enable the study groups to contribute to effective outcomes that will reduce the digital divide, complement the thematic work of the BDT, and support sustainable development worldwide.  **Expected results:**  WTDC-22 is invited to examine and approve the proposal in this document.  **References:**  WTDC Study Group 1 Question 1/1 | | |

By this proposal, CITEL suggests a framework for the ITU-D study groups to advance the conference theme to connect the unconnected through their work in the next four-year cycle. If adopted, we believe this approach will best enable the study groups to contribute to effective outcomes that will reduce the digital divide, complement the thematic work of the BDT, and support sustainable development worldwide.

The approach for the ITU-D Study Groups to advance global broadband connectivity goals presented here would address both the supply of adequate broadband network infrastructure as well as factors that influence the demand for broadband services, particularly the need for affordable devices and digital skills. Because both factors are equally critical to effective participation in the global digital society, CITEL recommends that the study groups concentrate on these issues comprehensively, and in distinct and separate questions during the next cycle.

Accordingly, CITEL presents: (i) revisions to ITU-D Question 1/1 intended to build on the excellent work achieved in previous periods to increase the supply of adequate and affordable broadband network infrastructure (Annex 1), and (ii) a new question to examine all aspects of broadband adoption including affordable devices and digital skills (Annex 2). CITEL supports continuing a discrete study of rural connectivity issues in a separate study question believing such a strong focus is crucial to improved connectivity, especially in developing countries. Our revisions to Question 1/1, therefore focus activities, deliverables, and best practices on urban, suburban and other non-rural areas.

Through the proposed revisions to Question 1/1, which incorporate suggestions agreed by ITU-D Study Group 1 and the Telecommunication Development Advisory Group (TDAG), CITEL invites ITU-D membership to examine four key areas: 1) the deployment, expansion, and modernization of terrestrial and non-terrestrial infrastructure and technologies; 2) enabling practical regulatory policies to remove barriers and expand and improve broadband infrastructure deployment; 3) partnerships and collaborations to promote connectivity and 4) investment and funding mechanisms, including the efficient use of universal service funds and other means to expand affordable broadband infrastructure in urban, suburban, and other non-rural areas. We have used as a base the revisions to Question 1/1 agreed by the 29th TDAG meeting (November 8-12, 2021).

Through the new Question on broadband adoption, CITEL aims to catalyze ITU-D membership to collectively develop strategies to increase broadband uptake in urban, rural, and remote areas in both developing and developed countries. The outcomes would propose best practices for affordable devices and services, capacity building and digital skills development, and content in local languages for all, including developing countries, vulnerable populations, women and children, persons with special needs, and indigenous communities.

As reflected in the WTDC-22 conference theme, the ITU Development Sector’s principal objective is to connect the unconnected with a special focus on the needs of developing countries to include Least Developing Countries (LDC), land locked developing countries (LLDCs) and Small Island Developing States (SIDSs). ITU-D study questions optimally will support this objective, be conducive to advancing sustainable development and align with the WSIS action lines for which the ITU has lead responsibility. Currently, nearly half the world’s population remains offline. Of those, 15 percent are offline because they lack network infrastructure and 85 percent are unconnected due to an ‘adoption’ gap: they may have access to a mobile broadband network but are not yet using broadband services or technology. CITEL presents this approach and proposals to focus work that can effectively address these circumstances and complement the collaborative work of all members and the BDT that occurs within ITU-D.

STUDY GROUP 1

**MOD** IAP/24A26/1

QUESTION 1/1

Strategies and policies for to Deploy Broadband   
Networks and Technologies in Developing Countries [[1]](#footnote-2)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.

Rapid evolution and new business opportunities are driving rapid but uneven growth in digital technologies. According to ITU data, 2019 marked the first full year when more than half the world began 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.

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 are to be reflected in the next study period;

- Policies, strategies and regulatory aspects of broadband

- Broadband Access technologies

- Financing and investment aspects of broadband

- COVID-19 and other pandemics on broadband networks

- Digital Transformation/Infrastructure

- Co-deployment & sharing broadband infrastructure with other infrastructural networks

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

# 1 Question or issue for study

## 1.1 Continuing topics from previous study period

a) Policies and regulations that promote broadband network connectivity giving special attention to non-rural, urban or suburban areas in developing countries, including those that will foster high-speed, high-quality broadband networks in these areas

b) National broadband plans and strategies to ensure thatbroadband services and technologies’ availability to as wide a community of users as possible.

c) Licensing approaches and business models to promote broadband network expansion that effectively allow integration of integrate terrestrial, satellite, backhaul, and submarine telecommunication infrastructure as appropriate, while maintaining technology-neutral policies, to best achieve coverage.

d) Methods and strategies to effectively deploy wireline, and wireless, and space-based broadband access technologies, including satellite, giving special attention to unserved and underserved populations in non-rural, urban or suburban areas.

e) Steps to improve cross-border connectivity, particularly for landlocked developing countries (LLDCs) and small island developing states (SIDS).

f) Effective and efficient ways to fund increased broadband access for unserved and underserved populations emphasizingnon-rural, urban or suburban areas, including universal service funds.

g) Promoting incentives and an enabling policy/regulatory environment for the financial investments required to deliver affordable broadband services to meet development needs and meet the growing demand for access to the Internet generally, and bandwidth and infrastructure requirements in particular including public, private and public-private partnerships for investment.

## 1.2 1.2 New topics for this study period

a) National digital policies, strategies, and plans to promote e-education, e-health, and telework after the COVID-19 pandemic through broadband connectivity.

b) Analysis of trends in data traffic, including whether the overall increase in data traffic prompted by telework, e-education among others, will become new normal in the post-COVID world;

c) Strategies to enhance the QoS of the network with networks in response to increased data traffic (in possible collaboration with Q6/1); post-COVID;

d) Analysis of the economic impact of delays in deploying terrestrial and non-terrestrial advanced telecommunication infrastructures caused by the COVID-19 pandemic, and technological alternatives complementary to existing networks to accommodate increased data traffic;

e) Potential co-deployment & sharing broadband infrastructure with other infrastructural networks.

# 2 Expected outputs

[Revisions to the Question 1/1 Final Report for ITU-D study period 2018-2021, as appropriate, including:]

[A final report for the Study Period describing:]

a) Strategies and best practices for improving access to broadband networks emphasizing urban, suburban, and other non-rural areas, including building out broadband networks needed for work, education, and healthcare.

b) Analysis of current trends in broadband technologies.

c) Case studies on adopting flexible telecommunications/ICT policies for decreasing regulatory barriers to broadband deployment.

d) Guidance for encouraging and mobilizing investments and funding for broadband networks, including via public-private partnerships

e) Strategies and national experiences for funding broadband deployment giving special attention to unserved and underserved urban, suburban, and other non-rural areas, including via universal service programs.

f) Strategies for encouraging the expansion of international connectivity between and among member states, including for landlocked developing countries and SIDS.

# 3 Timing

Annual progress reports will be presented to Study Group 1 in 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.

# 4 Proposers/sponsors

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

# 5 Sources of input

1) Results of workshops, seminars, and related round-table discussions conducted in-person and virtually.

2) Results of related technical progress in relevant ITU‑R and ITU‑T study groups.

3) Contributions from Member States, Sector Members and Associates and from relevant ITU‑R and ITU‑T study groups, and other stakeholders.

4) Interviews, existing reports and surveys should also be used to gather data and information for the finalization of a comprehensive set of best-practice guidelines.

5) Material from regional telecommunication organizations, telecommunication research centres, manufacturers and working groups should also be used, in order to avoid duplication of work.

6) ITU publications, reports and Recommendations on broadband access technologies.

7) Relevant output and information from study Questions related to ICT applications.

8) Relevant inputs and information from BDT programmes related to broadband and the different broadband access technologies.

# 6 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.

# 7 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:

– Programme R

– Projects R

– Expert consultant R

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

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.

# 8 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.

# 9 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.

# 10 Other relevant information

As may become apparent within the life of the Question.

**ADD** IAP/24A26/2

Proposed New Question

Strategies to Increase the Adoption and Use of Broadband Technologies and Services and to Improve Digital Skills

# 1 Statement of the situation or problem

Broadband technologies are transforming fundamentally the way we live. Broadband infrastructure, applications and services offer important opportunities to boost economic growth, enhance communications, improve energy efficiency, safeguard the planet and improve people’s lives. Broadband access and adoption have significant impact on the world economy and are important to bridging the digital divide.

According to the latest ITU data, global Internet usage is at 51 percent. In developed countries, 87 percent of the population is online compared to 44 percent in developing countries and 19 percent in least developed countries (LDCs). Significantly, an estimated 3.7 billion people or nearly half of the world’s population is not online. Of those, only 15 percent remain offline due to a lack of network infrastructure, while the other 85 percent remain offline because of an ‘adoption’ gap, i.e., they are covered by a mobile broadband network but are not yet using broadband services or technology.

Since the onset of COVID-19, internet connectivity has played a vital role in allowing individuals to continue to participate in everyday social, political, and economic activities as millions of people turned to remote work, distance learning, e-commerce, and internet-enabled telehealth services. Almost 70 per cent of the workforce in some countries shifted to remote work, and 94 percent of the world’s student population was affected by school closures. Unfortunately, of those affected, at least 31 percent of school age children are still unable to access online educational content.

Disparities are found across countries. With respect to gender, globally, only 48 percent of women use the internet compared to 55 percent of men. In developing countries women are almost 10 percent less likely to use the internet than men, compared to only 2 percent less than men in developed countries. The gender gap further widens in LDCs (15 percent women to 28 percent men) and in LLDCs (21 percent women to 33 percent men). Broadband adoption directly contributes to the likelihood that a community will participate in and benefit from the digital economy.

In Indigenous communities, the digital divide plays an even larger role in widening the economic, educational, and social divides. Due to the sparse population in rural and remote areas where many indigenous people live combined with the challenges of broadband mapping and data collection, available information sources often provide incomplete data for internet access and adoption. Methods to increase adoption in these areas will optimally focus on factors at the household and personal level to include price, availability of computers or other devices, content provided in local languages, and digital skills.

Global stakeholders have become increasingly focused on alleviating disparities in broadband adoption by investing in approaches that address the affordability of devices and services and emphasize the importance of digital skills and digital literacy to effectively participate in the global economy. In a survey conducted by the ITU, less than 40 percent of the population in 40 percent of countries surveyed had basic ICT skills, while similarly, less than 40 percent of the population in over 70 percent of countries had standard ICT skills and in over 95 percent of countries less than 15 percent of the population had advanced ICT skills.

There must be a significant uptake in broadband services and technologies for a community to participate fully in the digital economy. As stakeholders around the world work to deploy broadband networks, it is also important to develop and execute strategies that enable their citizens to adopt and effectively use broadband technologies, services, and devices, supported by adequate digital skills. Increasingly, stakeholders use local languages and iconography to increase computer and overall literacy. Optimally, all strategies for adoption will be studied in the context of the social, economic, and cultural factors faced by individuals in urban, rural, and remote areas in both developed and developing countries.

# 2 Question or issue for study

1. Analysis of broadband adoption opportunities, challenges, and disparities;
2. Trends in broadband adoption globally, including in urban, rural, remote and other areas;
3. Trends in skills development and training programs;
4. Trends in internet traffic and the impact on demand for high-speed broadband, including during pandemics and disasters;
5. Ways to encourage widespread adoption of new and emerging telecommunication/ICT services and technologies to increase fast and reliable connectivity for all, including women and individuals in developing and least developed countries (LDCs), landlocked developing countries (LLDCs), and small island developing states (SIDS);
6. Strategies and policies to improve the affordability of Internet-enabled devices, including handsets and data services to meet the growing demand for affordable Internet services and devices;
7. Methods to promote and encourage digital literacy, training, and skills development across all levels of the global socio-economic landscape to close the digital skills gap;
8. Approaches to strengthen training across sectors, including for e-agriculture to ensure that farmers can participate in the digital environment through Internet applications;
9. Ways to encourage the adoption of broadband services and devices among school-aged children and youth and to teach them basic, standard, and advanced digital skills so that they can participate fully in the digital society;
10. The influence of cultural, social and other factors in producing unique and often creative methods of encouraging the adoption of e-services by residents of developing countries;

# 3 Expected output

[Reports, best-practice guidelines, workshops, case studies and recommendations, as appropriate, that address the issues for study and the following expected outputs:]

1. Policies, strategies, and national experiences to stimulate adoption of broadband technologies, services, and devices;
2. Methods and guidelines for broadband adoption specific to social, cultural, and economic environments;
3. Policies, strategies and national experiences to develop and promote digital skills including training individuals at basic, standard, and advanced levels;
4. Methods, guidelines and case studies for lifelong skills training on new and emerging telecommunications/ICTs services and technologies for people of all ages and socioeconomic backgrounds;
5. Policies, strategies and case studies promoting broadband adoption and skills development in indigenous communities, for women, and for individuals in developing countries, LDCs and SIDs.

# 4 Timing

Annual progress reports will be presented to Study Group X [2] in , 2023 and 2024. Interim deliverables set in Section 3 could be sent for Study Group X [2] for approval on readiness without waiting for the end of study period.

# 5 Proposers/sponsors

The United States proposes the adoption of this new question.

# 6 Sources of input

1. Contributions from Member States, Sector Members and Associates, and from relevant ITU-R and ITU-T study groups, and other stakeholders.
2. Results of related technical progress in relevant ITU-R and ITU-T study groups.
3. Interviews, workshops, existing reports 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/ICT organizations, telecommunication/ICT research centers, manufacturers and working groups should also be used, in order to avoid duplication of work.
5. ITU publications, reports and Recommendations on broadband deployment, digital inclusion and skills.
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

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

a) Target audience

All national telecom/ICT policy-makers, regulators, service providers and operators, especially those in developing countries, as well as broadband providers and non-governmental or civil society organizations supporting broadband adoption and connectivity.

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 2 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.

1. How?

1) Within a study group:

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

2) Within regular BDT activity:

– Programmes R

– Projects R

– Expert consultants R

3) In other ways – describe (e.g. regional, within other R  
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 promoting broadband adoption and affordability, digital inclusion and digital skills.

# 11 Other relevant information

As may become apparent within the life of the Question.

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1. 1 The study of rural connectivity issues should be analyzed in a separate study question. [↑](#footnote-ref-2)