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| Contribution by Bahamas (Commonwealth of the) |
| Comments on second draft of the Report by the Secretary-General |
| **Purpose**This contribution provides The Bahamas’ comments on the second draft of the report by the Secretary General. At this stage, in addition to general comments, The Bahamas also provides input to the sections on the following three (3) sub-themes and the corresponding draft Opinions based on the questions included in the current version of the report: Bridging digital divides (particularly on gender and age, as well as skills and connectivity); Green digital transformation: climate change and environmental sustainability; Strengthening ICT-centric innovation and entrepreneurship.**Action required**The Informal Expert Group on WTPF-26 is invited to **consider** this document and **take appropriate action** regarding the incorporation of recommendations in the next version of the Report by the ITU Secretary-General for the Seventh World Telecommunication / Information and Communication Technology Policy Forum 2026.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_***References***[*2nd Draft of the Report by the Secretary General*](https://www.itu.int/md/S24-WTPF26PREP-R)*; Contributions by* [*China*](https://www.itu.int/md/meetingdoc.asp?lang=en&parent=S24-WTPF26IEG1-C&source=China)*,* [*India*](https://www.itu.int/md/meetingdoc.asp?lang=en&parent=S24-WTPF26IEG1-C-0002)*,* [*Rwanda*](https://www.itu.int/md/S24-WTPF26IEG1-C-0007/en)*,* [*United States*](https://www.itu.int/md/meetingdoc.asp?lang=en&parent=S24-WTPF26IEG1-C-0005)*, and* [*Zambia*](https://www.itu.int/md/meetingdoc.asp?lang=en&parent=S24-WTPF26IEG1-C-0003)*;* [*ITU Facts and Figures*](https://www.itu.int/en/ITU-D/Statistics/pages/facts/default.aspx)*;* [*ICT Development Index, Bahamas*](https://datahub.itu.int/dashboards/idi/?e=BHS&y=2024); [*UNDP Report: Small Island Digital States*](https://www.undp.org/sites/g/files/zskgke326/files/2024-04/undp-small-island-digital-states-how-digital-can-catalyse-sids-development-v2.pdf)*;* [*IGF 2024 Policy Network on Meaningful Access Plenary Report*](https://intgovforum.org/en/filedepot_download/256/28586)*;* [*IGF 2024 Session Reports*](https://intgovforum.org/en/igf-2024-reports)*;* [*The Global Digital Compact*](https://www.un.org/global-digital-compact/sites/default/files/2024-09/Global%20Digital%20Compact%20-%20English_0.pdf)*;* [*Facilitating 5G Deployment in The Caribbean: Strategy for creating a regulatory environment that enables access to advanced connectivity*](https://urcabahamas.bs/wp-content/uploads/2025/01/RFD_ECS_Paper-for-OOCUR-2024-Conferencce-18Sep2024-Final.pdf)*; ITU BDT: Smart Seas Toolkit for Disaster Resilience Project Brief;* [*Green Digital Transformation: How to Sustainably Close the Digital Divide and Harness Digital Tools for Climate Action (2024)*](https://openknowledge.worldbank.org/handle/10986/40653)*;* [*Inventory of International Best Practice for Managing Environmental Impacts in the Telecommunications Sector*](https://documents1.worldbank.org/curated/ar/228031468244182170/pdf/E1930v2WB0Cost0l0Draft0ESMF0Annexes.pdf)*;* [*Investigating the impact of anthropogenic radiofrequency electromagnetic fields on animals and plants in the environment: analysis from a systematic map*](https://doi.org/10.1080/00207233.2024.2375861)*;* [*World Economic Forum:* T*he enormous opportunity of e-waste recycling*](https://urcabahamas-my.sharepoint.com/personal/mbereaux_urcabahamas_bs/Documents/Documents/URCA/ITU%20Council/IEG-WTPF%20-%20SG%20Report/at%20https%3A/www.weforum.org/stories/2023/03/the-enormous-opportunity-of-e-waste-recycling/)*;* [*European Commission: Circular economy: new recommendations for national authorities to increase the return of used and waste mobile phones, tablets and laptops*](https://environment.ec.europa.eu/news/circular-economy-new-recommendations-national-authorities-increase-return-used-and-waste-mobile-2023-10-06_en)*.*  |

General Comments

The second draft of the Secretary General’s Report (‘this Draft Report’) provides an excellent basis for expert deliberations on the opportunities, challenges and policies in addressing the five sub-themes for WTPF-26: ***Accelerating an inclusive, sustainable, resilient, and innovative digital future.***

– bridging digital divides, particularly on gender, age, skills, and connectivity.

– green digital transformation: climate change and environmental sustainability.

– resilience of telecommunication/ICTs.

– space connectivity.

– strengthening ICT-centric innovation ecosystems and entrepreneurship.

However, the importance of the WTPF-26 and the themes should be anchored within the broader framework of the 2030 Sustainable Development Goals (SDG) Agenda, the WSIS+20 review process, and the Global Digital Compact (GDC). For example, the GDC recognizes the significance of the universal and meaningful connectivity (UMC) concept and contains commitments related to all the WTPF-26 sub-themes: resilient digital infrastructure, promoting sustainability across the lifecycle of digital technologies, addressing specific digital divides (age, skills, gender, connectivity), use of satellite technology to address connectivity gaps and fostering innovation and entrepreneurship.

Future versions of the Secretary General’s Report should highlight the relationship between WTPF policy recommendations and specific SDGs and/or targets and GDC commitments[[1]](#footnote-2). In this regard, and if practical, the IEG should consider [Zambia’s](https://www.itu.int/md/meetingdoc.asp?lang=en&parent=S24-WTPF26IEG1-C-0003) recommendation that future draft reports include an analysis of the potential impact of implementing WTPF-26 policy recommendations.

This Draft Report is also well-organized, with the inclusion of contextual arguments, data insights, and case studies under each sub-theme. However:

i) The thematic sections could be re-ordered to allow for a smoother transition based on the relationship between sub-themes. For example:

– bridging digital divides, particularly on gender and age, as well as skills and connectivity.

– resilience of telecommunication/ICTs.

– space connectivity.

– strengthening ICT-centric innovation ecosystems and entrepreneurship.

– green digital transformation: climate change and environmental sustainability.

ii) Inputs from previous (e.g. United States, Rwanda) and future contributions could be included to provide further contextual basis in each sub-section. Where applicable, each thematic section should highlight any unique issues/challenges faced by different jurisdictions/ stakeholder groups. This would add value to further deliberations and the final policy recommendations by ensuring relevance for a global audience.

iii) Recent/ongoing country/region specific case studies that advance the SG Report’s policy recommendations should be included as best practice examples. The IGF’s Policy Network on Meaningful Access’ Repository of Good Practices[[2]](#footnote-3) could be one source of information in this regard.

iv) Where there is cross-collaboration, or a need for cross-collaboration, between the ITU and other UN/multilateral organisations on the themes and policy recommendations presented in the WTPF report, future drafts of the report should highlight these, as well as references to any corresponding policy recommendations emanating from other covenants, resolutions or mandates in the UN or multilateral system.

Bridging digital divides, particularly on gender and age as well as skills and connectivity

Contextual inputs

In addition to the background provided in this Draft Report and the valuable contributions made by China, India, Rwanda and the United States, recent ITU Facts and Figures publications (focusing on LDCs, LLDCs and SIDS) emphasize the importance of understanding the unique developmental needs and underlying challenges faced by (and among) different country groupings in advising on policies and approaches that would be impactful for achieving universal and meaningful connectivity (UMC).

In SIDS, UMC contributes to sustainable tourism, efficient resource management, environmental conservation, human capital development, climate change adaptation, safety and security, and disaster resilience and response. For example:

­ In sectors like fisheries, enhanced ICT access promotes disaster resilience, operational efficiency, and economic stability for vulnerable small-scale fishers.

­ Tourism industries can be transformed by, inter alia, deploying emerging network technologies such as 5G to provide better connectivity for travellers and the services they use, while supporting immersive experiences such as augmented reality (AR) and virtual reality (VR)[[3]](#footnote-4).

­ 5G networks could also support improved fixed wireless access connectivity in remote communities more affordably.

­ Achieving UMC would also enable SIDS and other developing countries to modernize industries and strengthen digital economies, by paving the way for adoption of AI, IoT, and other emerging technologies[[4]](#footnote-5).

But there are several unique challenges and barriers impacting progress with achieving UMC in some SIDS like those in the Caribbean, including:

­ Legacy digital systems impede the integration of modern technologies, requiring significant time and financial resources to upgrade.

­ Geographic isolation/remoteness and small economies of scale lead to expensive infrastructure development, particularly for new and emerging technologies.

­ High susceptibility to natural disasters further exacerbates the situation since major weather events can cause devastation to physical (including digital) infrastructure and divert resources from long-term ICT investments.

­ Unreliable power supplies and limited backhaul capacity in remote communities.

­ Recent research by UNCTAD has revealed that 3.3 billion persons live in countries that spend more on the servicing of public debt than on the provision of public health or educational services. Further, for emerging and developing countries, interest payments outpace climate-related investments, thus retarding climate change adaptation and mitigation efforts. This leaves limited capacity for public funding of critical ICT initiatives[[5]](#footnote-6).

­ Small economy market dynamics and inconsistent regulatory frameworks across jurisdictions where global providers operate also limit incentives for private sector investment in emerging technologies such as 5G.

­ International bandwidth per Internet user is significantly below the global average, affecting service quality and reliability, while issues such as limited competition, high operational costs (e.g. energy, foreign expertise) and dependence on imports contribute to higher costs, making essential ICT services unaffordable for some citizens. The telecommunication markets are further impacted by demand-side constraints, such as lower disposable incomes.

­ Varying trust levels and digital skills among citizens and consumers in digital technologies that limit widespread adoption[[6]](#footnote-7), [[7]](#footnote-8).

In addition to the above, most efforts to achieve universal and meaningful connectivity have largely focused on land-based use cases, leaving gaps in providing affordable and accessible ICTs to certain vulnerable groups such as small-scale fishers. These fishers face digital and socioeconomic exclusion but are also vulnerable at sea, with no international regulations mandating communication solutions for their safety—only voluntary recommendations exist. It is up to individual countries to incorporate these recommendations into national policies[[8]](#footnote-9). Further, developing countries such as SIDS often face challenges with implementing digital solutions to protect these vulnerable groups due to intellectual property restrictions and the licensing of digital solutions[[9]](#footnote-10).

In terms of skills development, there is a growing number of digital skills programs in developing countries. However, few SIDs have conducted extensive assessments of their digital skills landscape, particularly for higher-end skills, which are often in short supply. Developing countries, in general, are also particularly prone to the “brain-drain”, as many skilled individuals migrate to larger economies, further depleting local expertise[[10]](#footnote-11).

Addressing the above challenges in SIDS requires clear institutional mandates, strong policy and regulatory frameworks, modern governance practices, and effective cross-sectoral collaboration.

Proposed responses to questions posed in this Draft Report

*4.6.1 How can strategies and policies create a favourable policy environment for universal and meaningful connectivity, and prioritize public and private investments in development of accessible and affordable telecommunications, Infrastructure and platforms in local language, to bridge the digital divide based on age, gender, socio-economic levels and urban – rural disparity?*

i) Use data-driven approaches to identify and address connectivity gaps (including those that exist for vulnerable groups). Conduct national ICT surveys to understand the nature and underlying causes for the digital divide, and to inform relevant policies and strategies. Ensure that data is appropriately disaggregated to identify gaps based on age, gender, socio-economic group, rural vs urban, etc. Establish benchmarks and indicators to measure progress toward universal and meaningful connectivity.

ii) Adopt a multistakeholder approach in developing and implementing policy/regulatory roadmaps for bridging the digital divide to ensure (i) that the needs and concerns of all stakeholders and beneficiaries are accounted for; and (ii) that there are use-cases across economic sectors that stimulate demand /incentive for infrastructural investment.

iii) To ensure timely and effective responses to the needs of stakeholders and consumers in remote/underserved communities, regulators should increase their local presence and adopt tailored community-based compliance and enforcement strategies that focus on proactive monitoring/investigation, empirical data collection and stakeholder engagement.

iv) Establish fiscal and other incentives to encourage investment in emerging technology network deployment in underserved areas (e.g. universal service funds, licence fee discounts, tax incentives, affordable spectrum pricing, feasible network deployment obligations, infrastructure sharing arrangements, regional/national internet exchange points, etc.). For example, the Utilities Regulation and Competition Authority (URCA) and the Government of the Bahamas has established a Communications Licence Fee Reduction procedure for electronic communication providers that make a minimum $100 000 investment annually in infrastructural upgrades.[[11]](#footnote-12)

v) Support the development of community-based networks in remote areas to bridge connectivity gaps where large-scale infrastructure is not viable. Leverage existing community-based buildings (e.g. post offices[[12]](#footnote-13), libraries, etc.) for this purpose, and as one-stop shops for communities to access e-government services or other digital services (e-banking, etc.).

vi) Encourage the creation of localized applications tailored to specific needs, such as agricultural tools for rural farmers, maritime communication tools for small scale fishers, or health apps for underserved communities. Establish the necessary enabling policy and regulatory frameworks at a country/regional level.

vii) To ensure spectrum availability for the licensing of new technologies (5G, satellite), keep national spectrum plans up to date with global technological developments and international spectrum coordination efforts led by the ITU’s World Radiocommunication Conferences (ITU WRC).

viii) Facilitate access, inclusion and opportunities to increase and ensure affordability of digital devices, services and connectivity for underserved communities. Promote the development of assistive technologies, inclusive digital platforms and social inclusion from a human rights-based lens. Reinforce digital policies that are accessible to individuals with disabilities in tandem with WIPO to reduce intellectual property and licensing barriers related to the widespread usage of the same. Implement subsidies for devices, connectivity and practical skills for women and girls while strengthening digital or leadership programs that promote their knowledge, social development and use of equitable digital tools to change their communities.

ix) To promote trust by citizens and consumers to adopt and use digital technologies; prioritise the establishment of resilient, safe, inclusive and interoperable digital public infrastructure, supported by the necessary policy and legal frameworks and public education/awareness campaigns.

x) Partner with business communities and civil society organisations to engage end-users in the design of e-government systems, so that applications account for their specific needs, especially those related to data security and human rights concerns[[13]](#footnote-14).

*4.6.2 How can policymakers develop and implement effective strategies and policies to promote digital literacy, training, and skills development addressing digital divides such as those based on gender, age, persons with disabilities, socio-economic levels and urban vs rural disparities?*[[14]](#footnote-15)

i) Policymakers should prioritize mapping digital skills gaps to identify existing capabilities and deficiencies within their countries. To build on this, governments should develop formal digital skills strategies that adopt a whole-of-society approach. Strategies should establish clear benchmarks and indicators to measure the progress of digital literacy initiatives and use participatory approaches to assess effectiveness for informing iterative improvements.

ii) Policymakers should establish transparent digital career pathways to attract and retain young digital talent, particularly in the public sector, including the offering of **digital internships**, **entry-level digital roles**, and **structured learning opportunities** to engage young professionals at the start of their careers. Develop clear progression frameworks and mentorship programs to support their growth and ensure long-term engagement in the public sector’s digital transformation efforts.

iii) Encourage the participation of women in STEM fields and digital careers through targeted scholarships, mentorship programs, and visibility of female role models.

iv) Alongside e-government application development, develop inclusive and context-specific digital literacy programs that cater to the unique needs of marginalized groups, including women, youth, the elderly, persons with disabilities, and rural populations. Customize content to reflect cultural contexts and address specific barriers women and girls face.

v) Embed digital literacy and advanced digital skills into school and university curricula and collaborate with higher and vocational education sectors to create advanced digital training programs aligned with local needs.

vi) Engage the private sector and academia in co-developing and scaling digital skills initiatives to identify and address labour market demands and to ensure that skill development prepares the workforce for future challenges, including the impact of AI and other emerging technologies. Focus on building entrepreneurial capacities and readiness for digital work and provide targeted support for small and medium enterprises (SMEs) to adopt digital tools and train their workforce in digital competencies.

vii) Promote participation in micro-credential programs and accessible professional certifications offered by the private sector.

viii) Use hybrid and blended learning approaches, combining online, offline, and community-driven methods to accommodate diverse learning environments and preferences.

ix) Establish community-based programs offering ongoing digital skills training to various age groups.

x) Mobilize community leaders and civil society organizations to champion digital literacy and conduct campaigns to address social stereotypes and norms that discourage certain groups from embracing digital tools.

*4.6.3 How international level organizations and community continue their efforts and take new initiatives on infrastructure development to connect the unconnected, make digital access more affordable, take global initiatives on digital literacy and skills and other initiatives with aim to bridge the digital divide based on gender, age, socio economic levels, as well as urban -- rural disparities?*

i) International organizations could support countries with advancing UMC initiatives by providing/ coordinating technical assistance and funding support to countries where implementation gaps/ challenges exist through programs like ITU’s Partner2Connect initiative.

Green Digital Transformation: Climate Change and Environmental Sustainability

Contextual inputs

In addition to the background provided in this Draft Report and the valuable contributions made by China and Rwanda on this topic, the following points should be noted.

Economies in transition may have challenges meeting Paris Agreement targets nationally due to political priorities over time and inadequate systems to effect national energy policies (e.g., implementation agencies, stakeholder collaboration mechanisms, data gathering, and management systems). Additionally, many developing countries are limited in their ability to attract the necessary levels of investment to implement Paris Agreement targets and facilitate the green digital transition and must prioritize the use of scant resources.

In an increasingly global world where physical boundaries are becoming less significant in limiting business opportunities, the call for digital transformation represents more than a simple technological shift. It represents an opportunity to modernize entire economic sectors and industries and eliminate prior developmental constraints to make businesses more competitive. For developing countries whose economies are primarily dependent on tourism, the impact of full implementation and embracing of the circular economy cannot be overemphasized. “Circularity represents an opportunity for tourism businesses to increase innovativeness for sustainability, and consequently their competitiveness, thus contributing to the long-term health and resilience of tourism activities and of the sector.”[[15]](#footnote-16)

However, although the three (3) green digital transformation strategies[[16]](#footnote-17) mentioned in this Draft Report collectively supports a more sustainable and resilient global ICT sector; the reality is that current industry practices limit opportunities and incentives for consumers to reuse, repair, and recycle ICT products. There is a dichotomy between revenue-generating strategies of manufacturers and service providers, consumers' needs, and sustainable environmental policies. This dichotomy exacerbates the e-waste problem, particularly in developing countries, where there are limited/non-existent facilities to accommodate and effectively dispose of e-waste, with the possibility for leachate to infiltrate groundwater systems.

Notably, one of the calls for action at the 2024 IGF is for “policymakers and regulators to encourage or mandate the adoption of the ITU Extended Producer Responsibility Principle to hold manufacturers and producers accountable for the entire lifecycle of their products”. The same IGF session also called for “designers, developers, and companies to prioritize ease of repair, future recyclability, and use of refurbished devices in their product development processes”.[[17]](#footnote-18)

In addition to the three (3) green digital transformation strategies[[18]](#footnote-19) outlined in this Draft Report, consideration should also be given to promoting infrastructure sharing, where technically and economically feasible, to reduce the need for redundant infrastructure, minimize resource consumption, and lower energy usage[[19]](#footnote-20). Responsible communications tower site selection and deployment should be promoted to help minimize disruption or destruction of sensitive ecosystems and wildlife habitats[[20]](#footnote-21). Additionally, while radio frequency emission standards are primarily aimed at human health, it is important to acknowledge the ongoing research on the potential impacts of electromagnetic fields on wildlife. Ongoing and further research in this area should be encouraged to better understand these effects[[21]](#footnote-22).

Proposed responses to questions posed in this Draft Report

*5.5.1 What actions can ITU take to build international partnerships that promote use of green digital transformation for sustainable development and climate action?*

i) Facilitate collaboration with regional environmental entities to obtain insight, share knowledge, and provide guidance on best practices tailored for the specific needs of different member states/ country groupings. This can be done by supporting and hosting workshops and seminars (virtual and in-person).

*5.5.2 How can telecommunications/ICTs help developing countries achieve green digital transformation?*

i) Smart energy management systems (e.g., smart electrical grids) enable real-time energy monitoring and demand side management to enable load shifting and improved access to energy by remote communities by optimally incorporating renewable energy systems.

ii) Climate monitoring systems assist with identifying regions and populations most at risk from climate related hazards like remote communities in geographically expansive countries. They also provide real-time data and forecasts that allow for timely evacuations and resource allocation ahead of disaster events. Detailed analysis of this data provides insight into how climate change affects ecosystems, infrastructure, livelihoods, etc., informing targeted climate adaptation strategies and decision-making by policymakers and industry stakeholders.

iii) Early warning systems help communities prepare for and mitigate the impact of climate events, saving lives and minimizing economic damages.

iv) Smart waste management systems enhance sorting, recycling, and responsible disposal of waste.

v) The creation and enhancement of digital marketplaces and e-commerce platforms support the exchange of second-hand goods and refurbished products to reduce waste generation and promote sustainability. The creation of such marketplaces also allows for the introduction of increased innovation, job growth, and potential export opportunities for local businesses. Platforms such as Facebook Marketplace have already begun to provide solutions for the resale of electronic devices in many small markets but lack various security protocols or required payment solutions.

*5.5.3 What are the good practices of telecommunications/ICTs in reducing the negative impact of industries on the environment?*

i) Promote the establishment of green data centres which adopt advancements in energy-efficient cooling and renewable-powered data centres.

ii) Adopt and deploy newer telecommunications infrastructure technology (such as 5G) and protocols, which are more energy efficient than older ones.

iii) Encourage the use of sustainable and robust hardware that minimizes the need for repairs and extends the time for replacements.

iv) Establish the necessary policies, regulations, facilities, and mechanisms to encourage the recycling of ICT equipment and the environmentally sensitive disposal of e-waste.

v) Uphold responsible communications tower site selection and deployment to minimize disruption or destruction of sensitive ecosystems and wildlife habitats.

vi) Engage in infrastructure sharing, where technically and economically feasible, to reduce redundant infrastructure, minimize resource consumption, and lower energy usage.

vii) Support ongoing and further research into the potential impacts of electromagnetic fields on flora and fauna to better understand these effects.

*5.5.4 How can international standards assist governments and the ICT sector in reducing the environmental impact of telecommunications/ICTs, while also enabling them to leverage ICT solutions to drive positive environmental impacts within the ICT sector and beyond?*

i) Measurement, data collection, and other standards (such as templates for enabling regulatory frameworks, green digital transformation strategies, capacity building, and technical assistance) can support governments in setting up the necessary institutional capacity to begin the process of green digital transformation and enable their achievement of related goals.

ii) International standards will encourage stakeholders to adhere to the same rules, enabling a level playing field, increased transparency, and fostering harmonization. International standards will assist manufacturers in producing compliant equipment, eliminating multiple product streams and, eventually, waste.

*5.5.5 How can policymakers help to reduce the environmental impact of telecommunications/ICTs, including energy consumption, and support sustainability?*

i) Establish legislation that promotes and prioritizes environmentally friendly practices in industry and government with respect to ICT products and services.

ii) Aid in the design of fiscal incentives and programs specifically for the sorting, recycling, and disposal of e-waste. In many developed countries, border or sales taxes on electronic goods have proven effective in providing financial incentives via refunds for persons who recycle such goods. Such mechanisms have also proved effective in shifting the cost burden of the disposal of such goods to a “user pay” model while simultaneously creating new business opportunities for those engaged in the collection, sorting or disposal of such items[[22]](#footnote-23). Implementing such models in the developing world may aid in the expansion of the fiscal viability of this sector while providing economic opportunities.

iii) Require telecommunications/ICT network and services providers to maximize the use of renewable energy in their operations.

iv) Establish national standards for maximum allowable e-waste from telecommunications/ICTs.

v) Encourage inter-agency cooperations to share ideas, establish best practices, and develop regional/national centres of excellence.

vi) Establish ICT procurement guidelines that require government agencies to prioritize energy-efficient and environmentally friendly ICT equipment.

vii) Enable the reduction of waste and physical travel by citizens by promoting the use of e-government platforms and paperless transactions.

viii) Incorporate the use of ICT data analytics into aspects of natural resource and asset management to eliminate waste and minimize travel.

Strengthening ICT-centric Innovation Ecosystems and Entrepreneurship

Proposed responses to questions posed in this Draft Report

*8.5.1 What are the barriers for MSMEs to innovation and to contribute to ICT innovation ecosystem and to make use of the digital transformation?*

i) The barriers to MSMEs participation to ICT innovation in The Bahamian context, which may also be applicable to other developing countries, are multifaceted and may include, (among other things):

– Limited local intellectual property protection with respect to the design and configuration of integrated systems.

– Limited ability to commercialize technological innovation and investment in the domestic market due to the conservative local business climate and lack of willingness of businesses to adopt new technologies.

– Limited support from the government for entrepreneurs in the sector (e.g., limited funding, creation of incubators, etc., compared to other markets with similar ICT penetration.)

– Weak but improving enabling environment to provide feeders into the ICT/innovative sector. Despite ITU’s estimated universal connectivity indicator scores of 99.4 for internet users and 93.2 for households with internet[[23]](#footnote-24) in The Bahamas, many local small businesses do not accept digital payments, have no web presence, and operate in a paper-based environment.

*8.5.2 How can policymakers help MSMEs to adapt to digital transformation, making their digital transformation of the entire value chain "affordable, useful, scalable and profitable" and to integrate digital tools and technologies into ICT innovation ecosystems and support them in collaboration with large enterprises?*

i) Provide financial incentives via tax credits or other means of financing to make the transition more financially feasible. In the case of The Bahamas, small business funding via the Small Business Development Company has traditionally required the implementation of point of sale (POS) systems into businesses which aids in better business management. The government has also used tax waivers on the import of green technology as a means of making the energy transition more feasible.

ii) Policymakers also have a role in creating the enabling environment for MSMEs who buy into the digital transformation to thrive. In the case of The Bahamas, in addition to lowering tariffs on the import of green technology, as part of an $80 million loan from the Inter-American Development Bank[[24]](#footnote-25), the local technical institute (Bahamas Technical Vocational Institute) has launched a program to train the local labour force in the installation and repair of Photovoltaic (PV) technologies to encourage wide adoption & use, making green technologies more affordable and encouraging MSME growth.

*8.5.3 How can policymakers help MSMEs innovate, grow, and integrate into the ICT innovation ecosystem more efficiently?*

i) See response to 8.5.2.

*8.5.4 How can ITU assist policymakers to work with relevant stakeholders to invest in ICT research and development for new innovative products and services for MSMEs?*

i) The ITU is correctly placed to provide the research, thought leadership, and know-how to local policymakers to better collaborate with relevant stakeholders to encourage investment in innovation products and services. ITU initiatives such as WSIS, AI for Governance, and the various thought leadership do add tremendous value to encouraging entrepreneurs in the path of innovation. However, these projects should be expanded and implemented at the regional level in partnership with local and regional governments. Such initiatives are not only useful if generating local/regional buy-in, but they also aid in attracting private sector and Multilateral Development Bank financing to MSMEs to further develop and expand on their innovative products and may also provide market opportunities[[25]](#footnote-26).

ii) Through ITU-D, the ITU is very well suited to direct development funding towards regional projects to which local and regional MSMEs may participate. Such projects should be targeted and directed toward areas where local long-term capacity may be developed.

*8.5.5 How can ITU assist policy makers to bring intellectual property developed by MSMEs to market and to the ICT innovation ecosystem?*

i) The ITU could collaborate with the World Intellectual Property Organization (WIPO) to aid in the creation and development of the enabling environment for the protection of IP generated by MSMEs in the ICT space. Such a model may include the engagement of agencies such as the International Trade Centre (ITC), which aids in conceptualizing and scaling up projects in developing countries. Similar programs have already been created, such as the She Trades[[26]](#footnote-27) program, which seeks to aid female entrepreneurs in becoming market ready. Such projects could be adapted specifically for the ICT sector.

*8.5.6 How can policy makers, universities, research institutes, innovation hubs and enterprises in the ICT innovation sector promote, invest, support and develop entrepreneurship and enhance the supply of digital talents for enterprises?*

i) A coordinated and intentional approach to supplying digital talent must be developed, usually within the context of a country’s national development planning process or within the context of a national labour skills gap exercise. In both instances, the current and future labour needs of the private sector with respect to ICT need to be mapped into the government’s long-term plan for education (at both the junior, secondary, and university levels). In addition, the government and private sector have a joint role in ensuring and creating an innovative environment by creating innovation hubs and incubators for MSMEs in the early stages of developing creative ICT products. Such initiatives have been successful in China, Kenya, The Bahamas, and other developing countries.

*8.5.7 How can policy makers promote competition and improve access to open markets to foster entrepreneurship?*

i) At the policy level, governments have an important role in ensuring the best use of scarce resources and ensuring the benefit of all in society. In this regard, competition has always been the preferred economic model to ensure that the best entities are the ones that succeed. To achieve this goal, both the government and the private sector around the world have implemented competitive pitch processes as one method of ensuring that the most viable MSMEs receive funding, which provides an incentive for MSMEs and innovators to sharpen their skills.

ii) Several countries have also associated their best MSMEs with relevant export promotion strategies (such as in trade shows and other promotional activities) to provide market access and export assistance to these MSMEs in a subsidized manner.

*8.5.8 How can the ITU and international cooperation support MSMEs and assist policy makers by providing platforms for building cooperation networks for knowledge and capability sharing, for evaluation and training, for bringing ICT innovations into standardization, for regulatory toolkits and sandboxes?*

i) See response to 8.5.4 above.

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1. In the same way that the GDC links commitments to specific SDGs. [↑](#footnote-ref-2)
2. <https://intgovforum.org/en/content/pnma-repository>. [↑](#footnote-ref-3)
3. Deleveaux, R. 2024. Facilitating 5G Deployment in The Caribbean: Strategy for creating a regulatory environment that enables access to advanced connectivity. Paper prepared for Organization of Caribbean Utility Regulators (OOCUR) Annual Conference. October 2024. [↑](#footnote-ref-4)
4. UNDP, Small Island Digital States: How digital can catalyse SIDS development (New York: UNDP Global SIDS Team, 2024). [↑](#footnote-ref-5)
5. UNCTAD. “A world of debt report 2024: A growing burden to global prosperity". Found at <https://unctad.org/publication/world-of-debt>. [↑](#footnote-ref-6)
6. UNDP, Small Island Digital States: How digital can catalyse SIDS development (New York: UNDP Global SIDS Team, 2024). [↑](#footnote-ref-7)
7. Despite digital advancements such as a digital central bank currency, e-government platform and introduction of a digital payments platform in Government, two surveys conducted by the Central Bank of The Bahamas in 2020 revealed that although online banking, digital payment systems and mobile wallet usage is becoming more popular, concerns over identity fraud is one of the reasons why more consumers and businesses are not entirely comfortable with digital transactions. [↑](#footnote-ref-8)
8. International Telecommunication Union Telecommunication Development Bureau (ITU BDT). *Smart Seas Toolkit for Disaster Resilience Project Brief*. 2025. The Smart Seas Project is a joint project among the International Telecommunication Union (ITU), Caribbean Telecommunications Union (CTU) and Telecommunications Authority of Trinidad and Tobago (TATT). It sets out to facilitate the preservation of the lives of vulnerable small-scale fishers (SSF) in the Caribbean by increasing their resilience through information and communications technologies (ICTs), with emphasis on the associated enabling environment. The first phase of the project was undertaken in Trinidad and Tobago, Grenada, Barbados and St. Vincent and the Grenadines. [↑](#footnote-ref-9)
9. “Digital pathways for SIDS 2.0: Defining the pathway for Small Island DIGITAL States in the Caribbean”. Position paper. Retrieved from <https://www.undp.org/sites/g/files/zskgke326/files/2024-09/sids_2.0_-_position_paper_19_april_2024.pdf>. [↑](#footnote-ref-10)
10. *Ibid*. 6. [↑](#footnote-ref-11)
11. https://www.urcabahamas.bs/wp-content/uploads/2023/08/Comms-Fee-Reduction-Guidance-Note-Final-6-02-23\_DD\_20022023-JM.pdf. [↑](#footnote-ref-12)
12. Session Report: [IGF 2024 Open Forum #20 CONNECT.POST: Connect communities through the postal network](https://intgovforum.org/en/content/igf-2024-open-forum-20-connectpost-connect-communities-through-the-postal-network). [↑](#footnote-ref-13)
13. Session Report: [IGF 2024 WS #86 The Role of Citizens: Informing and Maintaining e-Government](https://intgovforum.org/en/content/igf-2024-ws-86-the-role-of-citizens-informing-and-maintaining-e-government). [↑](#footnote-ref-14)
14. *Ibid.* 4. [↑](#footnote-ref-15)
15. Destination: A circular tourism economy' (Manniche *et al.*, 2017). [↑](#footnote-ref-16)
16. Prioritizing material efficiency, promoting the reuse of equipment, and implementing circular economy principles. [↑](#footnote-ref-17)
17. Session Report: [IGF 2024 Lightning Talk #22 Effective e-waste solutions for a sustainable digital future](https://intgovforum.org/en/content/igf-2024-lightning-talk-22-effective-e-waste-solutions-for-a-sustainable-digital-future). [↑](#footnote-ref-18)
18. Prioritizing material efficiency, promoting the reuse of equipment, and implementing circular economy principles. [↑](#footnote-ref-19)
19. [Green Digital Transformation](https://elibrary.acbfpact.org/acbf/collect/acbf/index/assoc/HASH488a/cc91a49f/46ef4667/85.dir/digital%20Advance%20Edition.pdf): How to Sustainably Close the Digital Divide and Harness Digital Tools for Climate Action (2024) by the World Bank. [↑](#footnote-ref-20)
20. Inventory of International Best Practice for Managing Environmental Impacts in the Telecommunications Sector by the World Bank. [↑](#footnote-ref-21)
21. Brzozek, C., Mate, R., Bhatt, C. R., Loughran, S., Wood, A. W., & Karipidis, K. (2024). Investigating the impact of anthropogenic radiofrequency electromagnetic fields on animals and plants in the environment: analysis from a systematic map. *International Journal of Environmental Studies*, *81*(5), 2343–2358. <https://doi.org/10.1080/00207233.2024.2375861>. [↑](#footnote-ref-22)
22. See notes from the discussion at the World Economic Forum at <https://www.weforum.org/stories/2023/03/the-enormous-opportunity-of-e-waste-recycling/> as well as European Commission recommendations provided at <https://environment.ec.europa.eu/news/circular-economy-new-recommendations-national-authorities-increase-return-used-and-waste-mobile-2023-10-06_en>. [↑](#footnote-ref-23)
23. ICT Development Index, Bahamas. Retrieved from <https://datahub.itu.int/dashboards/idi/?e=BHS&y=2024>. [↑](#footnote-ref-24)
24. <https://www.iadb.org/en/project/BH-L1048>. [↑](#footnote-ref-25)
25. See an example of the 2019 Grand Bahama Tech Summit which attracted major companies such as Google to the country and spurred significant innovation in the sector <https://www.tourismtoday.com/events/grand-bahama-tech-summit>. [↑](#footnote-ref-26)
26. <https://www.shetrades.com/>. [↑](#footnote-ref-27)