

**INTERSESSIONAL PANEL OF THE UNITED NATIONS COMMISSION
ON SCIENCE AND TECHNOLOGY FOR DEVELOPMENT (CSTD)**

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Contribution by Belize

**to the CSTD 2025-2026 priority theme on “Science, Technology and Innovation in
the age of AI”**

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PRIORITY THEME 2: Science, Technology, and Innovation in the age of AI

United Nations Commission on Science and Technology for Development (CSTD)

Dear CSTD Member,

The [28th CSTD annual session](#) selected “Science, Technology, and Innovation in the age of AI” as one of the priority themes for its 29th session (2025-2026). This theme directly addresses SDG 9 “Build resilient infrastructure, promote inclusive and sustainable industrialization, and foster innovation” at the 2030 Agenda.

The rapid rise of frontier technologies and the surge in data generation are transforming research and development. Artificial intelligence, as a general-purpose technology, will further accelerate this transformation. These changes in research and development practices offer significant opportunities for inclusive industrialisation and innovation, which are the core objectives of SDG 9.

Under this theme, the Commission could discuss how the use of AI and data would impact research and development processes in science and industry and identify the institutional and policy conditions required to harness these technologies for inclusive and sustainable industrialization and innovation. In this context, the Commission can examine the challenges and opportunities specific to countries at different levels of development, identify good practices and policies to support domestic technological development, research and innovation, and explore ways to leverage international cooperation to bridge the uneven technological capabilities and steer technological progress toward sustainable development.

The CSTD secretariat is in the process of drafting an issue paper on the theme to be presented at the CSTD inter-sessional panel meeting to be held in November 2025. In this context, we would like to solicit inputs from CSTD member States on this theme. We would be grateful if you could kindly answer the following questions based on your experience in your country.

1. Can you provide some successful examples of how AI and data are being used to advance science and innovation in your country? *(Please describe how these applications transformed research and development practices and their impacts)*

- **Belize Agriculture Information Management System (BAIMS)**
 - **Application:** Central GIS-based platform mapping farms and farmers.
 - **Transformation:** Enabled accurate tracking of agricultural resources, planning of irrigation/drainage, and rapid response to natural disasters.
 - **Impact:** Improved resource allocation, enhanced market linkages, and greater resilience across the agricultural sector.
- **AgriTech Innovations**
 - **Application:** Use of IoT sensors, drone imagery, and predictive analytics for crop performance and traceability.
 - **Impact:** Boosted yields, supported sustainable practices, and enabled evidence-based agricultural policymaking.
- **AI-Powered National Marine Habitat Mapping (NMHM)**
 - **Application:** AI and satellite imagery classify marine and coastal ecosystems (coral, seagrass, mangrove).
 - **Transformation:** Provided near real-time monitoring and updated marine habitat data.
 - **Impact:** Informed coastal zone management, strengthened conservation planning, and guided sustainable policy decisions.
- **Belizing Innovation Lab**
 - **Application:** AI-powered dashboards and e-learning platforms for SMEs in the tourism sector.

- o **Transformation:** Provided data insights and capacity building to entrepreneurs.
- o **Impact:** Improved competitiveness of SMEs and supported digital adoption in a traditionally low-tech sector.
- **501 Academy – AI Buddies**
 - o **Application:** AI tools embedded on the 501Academy website, including the **501 Historian, 501 Teaching Assistant, and Kriol 501 Teaching Assistant.**
 - o **Transformation:** Supports teachers with automated lesson planning, access to Belizean historical content, and bilingual instruction (English/Kriol).
 - o **Impact:** Reduced teacher workload, promoted inclusivity, and mainstreamed AI into classroom support systems.

2. What specific challenges, bottlenecks, or failures have you encountered in implementing AI and data for science and innovation? What are the lessons learned?

Belize has made progress in integrating AI and data for science and innovation, but several challenges remain. Limited digital infrastructure, particularly in rural areas, restricts access to AI tools, highlighting the importance of initiatives like the GIGA connectivity project (establishing internet infrastructures for schools). Data availability and quality are often fragmented, requiring centralized repositories and validation to support effective AI applications. Human capacity is also a limiting factor, with very few local experts in AI and data science, underscores the need for targeted training and collaboration with regional and international partners. Financial constraints and high development costs necessitate scalable, cost-effective solutions, and public-private partnerships. Cultural and linguistic relevance is critical. By embedding AI tools such as the Access 501 AI Academy Assistants, which support both English and Kriol and include Belizean cultural contents, improves adoption and inclusivity. Policy and regulatory gaps, including AI policy, ethics, and data governance, must be addressed to build trust and ensure ethical responsible deployment. Overall, these experiences highlight that successful AI implementation depends on infrastructure, skilled personnel, reliable data, culturally relevant tools, and supportive policy frameworks.

3. Has your country implemented national strategies or policy instruments to support AI and data for science and innovation? (Please describe how ethical considerations—such as fairness, transparency, privacy, and accountability—are being incorporated and provide relevant details such as links, budget, evaluation, or other information to characterize them)

Belize is advancing AI and data through its **National Science, Technology, and Innovation Strategy**, promoting digital transformation across government, education, agriculture, and the environment sectors. Ethical considerations—**privacy, fairness, transparency, and accountability**—are embedded in initiatives such as the **501Academy AI Assistants** and the **501 Kriol AI Teaching Assistant**, which include local content and languages. Pilot projects incorporate feedback loops to address bias and errors. AI programs are supported through government funding, public-private partnerships, and international partners like UNICEF and Inter Development Bank (IDB).

4. Does your country promote open innovation or open data? If not, why? If yes, can you share specific projects and outcomes? (Please provide relevant details such as links, budget, evaluation, or other information to characterize them)

Belize has made strides in open data, with the **Statistical Institute of Belize (SIB)** aiming to broaden the use of open data platforms and social media to reach a wide range of stakeholders sib.org.bz. Additionally, the **Belize Open Data Inventory (ODIN)** provides an assessment of

the country's open data landscape, highlighting areas for improvement and growth odin.opendatawatch.com.

5. What mechanisms are in place in your country to foster collaboration around AI and data for science and innovation among different stakeholders (e.g., university-industry, or private-public)?

National Digital Agenda (2022–2025): Led by the Ministry of E-Governance, this agenda aims to build trust in government services through reliable, inclusive, and efficient digital solutions. It emphasizes enhancing government operations, fostering collaboration, and improving digital infrastructure [Digital Watch Observatory](#).

OAS Discussion on AI Laws: Belize participated in an OAS discussion on AI laws and opportunities for development. The meeting focused on regulatory necessities for AI development and the technology's use in data collection, highlighting the importance of a supportive environment for AI benefits

National Data Strategy: This strategy establishes a holistic approach to data governance, use, and management within the government, aiming to improve data accessibility and utilization across sectors [Digital Agenda](#).

National Strategy for the Development of Statistics (NSDS2): Launched in August 2025, NSDS2 provides a five-year roadmap to enhance statistical capacity, strengthen data governance, and improve data quality and accessibility [SIB](#).

Trust for the Americas – DIA Lab Belize: In partnership with the U.S. Embassy in Belmopan, the Trust for the Americas launched the Democratizing Innovation in the Americas (DIA) Lab in Belize City. This initiative trains and empowers youth, fostering multi-stakeholder collaboration and supporting long-term innovation processes. The lab operates within The University of the West Indies (UWI) Open Campus, facilitating collaboration among academia, civil society, and local governments [Trust for The Americas](#).

University of Belize (UB): UB has established partnerships with industry to address specific institutional and industry needs. While these efforts are in early stages, they represent a growing commitment to bridging the gap between academia and industry

Inter-American Framework on Data Governance and AI: Belize is involved in the OAS's Inter-American Framework on Data Governance and AI, which provides recommendations and a model policy for member states to develop responsible data and AI governance frameworks [Organization of American States](#).

6. Is your country engaged in any bilateral, regional, or international partnership aimed to foster AI for STI? *(Please describe the benefits and challenges of participating in these partnerships).*

- STI Advisory Committee: included government, private and academic sectors, with support from organizations like UNDP, Inter-American Development Bank (IDB)
- Cabinet gave its approval to sign the Santiago Declaration to establish a regional council on the implementation of recommendations on ethics of AI to promote the design, development, deployment and acquisition of AI systems that respect human rights and dignity, gender equality and fundamental freedoms.
- Currently exploring the adoption of the regional framework for an open and inclusive STI policy for Central America and the Dominican Republic

7. How can international cooperation enhance the use of AI and data for science and innovation to support technological capacity building in your country? In what ways can the UN CSTD contribute to this effort?

The UN CSTD's current priority theme provides a timely entry point for Belize to align its draft National STI Strategy with global discussions on the responsible use of AI and data. A key focus for Belize is the development of human resources in AI and data science; given the limited number of experts, international cooperation through training, professional development, scholarships, fellowships, and technical exchanges can significantly enhance capacity. The Strategy also emphasizes strengthening technological infrastructure, including research facilities, laboratories, and low-carbon energy systems, which require international funding and partnerships. Through policy guidance and knowledge-sharing platforms, the CSTD can help Belize build expertise and infrastructure for the sustainable use of AI and data, supporting broader national development goals.

Please indicate contact person(s) responsible for projects/policies and international collaboration in this context in case we need clarification on the inputs.

Please send your responses and any further inputs on the theme to the CSTD secretariat (cstd@un.org) by **31 August 2025**. We look forward to receiving your valuable inputs.

Sincere regards,
CSTD secretariat