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

Lisbon, Portugal
6-7 November 2023

Contribution by Türkiye

to the CSTD 2023-2024 priority theme on "Data for Development"

PRIORITY THEME 1: Data for Development

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

Dear CSTD Member,

The 26th CSTD annual session selected "Data for Development", as one of the priority themes for its 27th session (2023-24 period).

Data, including for scientific and research purposes, are becoming a key strategic resource for sustainable development. If well managed, data can help overcome major global development challenges, such as poverty, food security, climate change, disaster risk management, and pandemics. If badly handled, they can generate unequal development outcomes. General Assembly's resolution 77/150 of 14 December 2022 noted that the Commission on Science and Technology for Development could explore the connection between data and sustainable development, including data governance, while taking into account the multiple dimensions of data. The development implications of data, including data quality, data capabilities, and responsible data handling should also feature prominently in discussions about the Global Digital Compact and in the Summit of the Future, adding to the relevance of the CSTD's perspectives on this issue as the UN focal point for STI for development.

Under this theme, the Commission will consider issues such as major contributions and risks of data in relation to the achievement of the 2030 Agenda for Sustainable Development; how to ensure that developing countries benefit from the data revolution while considering risks; national and international policies and support measures that can help address the challenges of the developing countries in the area of data relevant for sustainable development, while taking into account the multiple dimensions of data.

The CSTD secretariat is in the process of drafting an issues paper on the theme to be presented at the CSTD inter-sessional panel meeting to be held in the second half of October 2023 in Portugal. In this context, we would like to solicit inputs from the 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 or region.

1. What are the major contributions and risks of data in relation to the achievement of the 2030 Agenda for Sustainable Development?

   Major Contributions of Data:

   • Data provides valuable insights that enable evidence-based decision-making. It helps policymakers understand complex development challenges, identify trends, and formulate effective strategies and policies to address them. Data-driven decision making enhances the likelihood of achieving the Sustainable Development Goals by promoting targeted interventions and resource allocation.

   • Data plays a critical role in monitoring progress towards the Sustainable Development Goals. By tracking indicators and collecting relevant data, countries can assess their performance, identify gaps, and measure the impact of policies and interventions. This enables timely adjustments, better accountability, and effective evaluation of development efforts.

   • Data allows for the identification of specific areas and vulnerable groups that require targeted interventions. By analyzing data, policymakers can understand the root causes of issues, such as poverty, food security, or climate change, and design programs that address them in a more tailored and effective manner.

   • Data helps optimize the allocation of resources for sustainable development. By understanding the specific needs and priorities of different sectors and regions, countries can allocate resources more efficiently, ensuring they are directed to areas with the greatest impact and potential for achieving the Sustainable Development Goals. For

example, data analytics and big data management enable more efficient resource usage in sectors such as energy, water, agriculture, and others.

- Data fosters transparency and accountability by enabling the assessment of progress and holding governments, organizations, and other stakeholders accountable for their commitments. It allows for better public scrutiny and participation in development processes.

- Data can be utilized to inform the public about sustainable development issues and increase awareness. Awareness campaigns, educational and vocational programs based on data can help individuals make choices that promote sustainable lifestyles.

Risks and Challenges of Data:

- Ensuring the quality and availability of data is crucial for effective decision-making. Inaccurate, incomplete, or outdated data can lead to flawed policies and ineffective interventions. Data collection methods, standards, and systems must be robust, reliable, and inclusive to mitigate this risk.

- The collection, storage, and sharing of data raise concerns about privacy and security. Safeguarding personal information and ensuring data security is essential to maintain public trust and prevent misuse. Strong data protection measures, legal frameworks, and ethical guidelines are necessary to address these risks.

- Building the necessary capacity and skills to manage and analyze data is a challenge for many countries. Adequate investments in data literacy, data management, and data analysis capabilities are required to fully leverage the potential of data for sustainable development.

- Limited access to data may occur in regions or low-income communities where there is a lack of data collection and analysis infrastructure, which can affect the sustainable development agenda. In addition, disparities in data literacy and analytical capacity can exacerbate existing inequalities. Developing countries and vulnerable communities often face challenges in accessing and effectively utilizing data for sustainable development planning and decision-making. Efforts are needed to bridge the data divide and build capacity at all levels.

- Compatible technological infrastructure is needed for the effective use of data. However, some countries may face challenges in accessing technological infrastructure, which can limit data utilization.

2. How can developing countries benefit from the data revolution while considering risks?

Developing countries can benefit from the data revolution in several ways. The data revolution refers to the widespread availability and accessibility of large volumes of data, along with the technological advancements that enable its collection, storage, and analysis. While harnessing the potential of the data revolution, developing countries need to consider and address certain risks. Here is how developing countries can benefit from the data revolution when considering risks:

Improved decision-making: Access to data can enhance decision-making processes in various sectors, such as healthcare, agriculture, education, and infrastructure development. Developing countries can utilize data-driven insights to make informed policy decisions, allocate resources effectively, and prioritize development initiatives.

Enhanced economic growth: Data can catalyze economic growth by fostering innovation, identifying market trends, and improving productivity. Developing countries can leverage data to support the growth of local industries, attract investments, and create employment opportunities. Additionally, data-driven entrepreneurship and digital start-ups can flourish, contributing to economic development.

Targeted development interventions: Data can help identify and understand the specific needs and challenges of vulnerable populations within developing countries. Governments and organizations can use data to design targeted interventions and programs that address poverty, inequality, healthcare access, and education gaps more effectively.

Improved public services: Data can enable the delivery of better public services. For example, by analyzing data on population demographics and geographical patterns, governments can optimize the allocation of resources, improve public transportation, and enhance healthcare delivery systems. Data-driven governance can lead to more transparent and efficient public services.

Disaster management and resilience: Data can play a crucial role in disaster management and building resilience in developing countries. Real-time data on weather patterns, early warning systems, and historical disaster data can help governments and communities prepare for and respond to natural disasters effectively, potentially saving lives and minimizing damage.

International collaboration: Developing countries can benefit from international collaboration and support in harnessing the potential of the data revolution. This includes partnerships with developed countries, international organizations, and the private sector to access funding, technical expertise, and knowledge sharing. International cooperation can also help develop data governance frameworks that address risks and protect the interests of developing countries.

Developing countries should consider the following:

Data privacy and security: Developing countries should prioritize ethical and responsible data practices to address privacy concerns and potential risks. Establishing data protection regulations, frameworks for informed consent, and mechanisms for accountability can help ensure that data is used avoids to respect individual rights and avoid potential harm. Developing countries should also consider data localization and sovereignty to protect their data assets and ensure that the benefits of the data revolution remain within their own borders. This may involve enacting appropriate policies and regulations to govern data collection, storage, and processing, while safeguarding privacy and security.

Digital literacy and capacity building: Enhancing data literacy and building technical skills among policymakers, researchers, and data practitioners is essential. Developing countries should invest in training programs, workshops, and educational initiatives to empower individuals with the knowledge and skills needed to collect, analyse, and interpret data effectively.

Infrastructure and connectivity: Developing countries need to invest in reliable and affordable internet connectivity and infrastructure to ensure equitable access to data and digital technologies. This involves improving data collection methodologies, establishing data standards and interoperability, and enhancing data management practices.

Data inequalities: Developing countries should strive to address data inequalities by ensuring that data collection efforts are inclusive and representative of all population groups, including vulnerable communities.

Data governance and regulation: Developing countries should establish effective data governance frameworks that balance data openness and accessibility with national regulations to ensure responsible data use. Clear guidelines should be in place for data sharing, data ownership, and the use of data for public interest.

3. What national and international policies and support measures can help address the challenges of the developing countries in the area of data relevant for sustainable development, including scientific and research purposes, data quality, data capabilities, and data governance, while taking into account the multiple dimensions of data?

Developing countries can benefit from capacity building programs and technical assistance to enhance their data-related capabilities. This can include training programs on data collection, analysis, and management techniques, as well as the use of advanced technologies and tools for data processing.

Developing countries can invest in building robust data infrastructure, including data centers and networks, to ensure the reliable storage, management, and transfer of data. This infrastructure can support scientific research, data analysis for sustainable development initiatives.

Encouraging collaboration between countries, research institutions, and organizations can facilitate the exchange of knowledge and expertise. International partnerships and initiatives can be established to promote, research collaborations, and the sharing of best practices.

Establishing robust data privacy and security regulations is crucial to ensure the responsible handling of data. Developing countries can adopt and enforce regulations that protect individuals' privacy rights, encourage ethical data practices, and safeguard data against unauthorized access and misuse.

Engaging diverse stakeholders, including governments, academia, civil society, private sector is crucial for effective data governance and sustainable development. Multi-stakeholder partnerships can promote inclusive decision-making processes, knowledge exchange, and collaborative efforts in utilizing data for sustainable development.

Ensuring data quality is crucial for reliable decision-making. National policies should establish standards and guidelines for data collection, validation, and quality assurance processes. International support can be provided through technical assistance, peer reviews, and partnerships with international organizations to enhance data quality standards and practices.

4. In your country's view, what role could CSTD play in respect of data for development, including in the context of the Global Digital Compact?

CSTD could facilitate and foster knowledge-sharing and capacity building initiatives to help member states enhance their understanding and capabilities in utilizing data for sustainable development. This could involve organizing workshops, training programs, and conferences to promote best practices, share experiences, and build technical and analytical skills.

CSTD could contribute to the development of policy recommendations and guidelines specifically tailored to the needs and challenges of member states. This could involve conducting research, analysing data-related policies and regulations, and providing advice on how to create an enabling environment for data-driven development while considering the country's specific context and priorities.

CSTD could serve as a platform for advocating the importance of data for development. It could help raise awareness among policymakers, stakeholders, and the public about the potential benefits of data, while also highlighting the risks and challenges associated with its use. By promoting a better understanding of data-related issues, CSTD can foster informed decision-making and encourage the adoption of appropriate policies and practices.

CSTD can promote the responsible use of data, including privacy protection, informed consent, and safeguards against bias and discrimination. CSTD can emphasize the importance of inclusive data collection and ensure that vulnerable groups in developing countries are not left behind in the data revolution.

CSTD could facilitate international collaboration and partnerships between Türkiye and other countries, organizations, and stakeholders. This could involve promoting exchanges of expertise, fostering cooperation in data-related research and innovation, and facilitating access to data resources and technologies.

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

Okan Sadi, Industry and Technology Expert
Ministry of Industry and Technology
okan.sadi@sanayi.gov.tr

Please send your responses and any further inputs on the theme to the CSTD secretariat (stdev@unctad.org) by **15 August 2023**. We look forward to receiving your valuable inputs.

Sincere regards,

CSTD secretariat