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Contribution by Egypt

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UNCTAD CSTD Questions on Data for Development

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

Data is a key resource for achieving the 2030 Agenda for Sustainable Development. The 2030 Agenda, adopted by the United Nations in September 2015, consists of 17 Sustainable Development Goals (SDGs) and 169 targets aimed at addressing various social, economic, and environmental challenges to create a more sustainable world by the year 2030. **Data is both a powerful enabler and a potential risk in the pursuit of these goals. Here are the major contributions and risks of data in relation to the achievement of the 2030 Agenda:**

Major Contributions of Data could be summed as follow:

- **Informed Decision-Making:** Data is the foundation of evidence-based decision-making. It provides valuable insights into the current state of affairs, tracks progress, and identifies trends and patterns. Governments, organizations, and stakeholders can use this data to formulate effective policies and interventions aligned with the SDGs. Providing evidence for policymaking and planning, monitoring and evaluation, and accountability and transparency.
- **Monitoring and Evaluation:** Data is crucial for monitoring the progress made towards each SDG. Regular data collection and analysis help identify areas of success and areas that require more attention. It enables countries to assess their performance and adjust strategies accordingly to stay on track to achieve the targets.
- **Targeting Resources:** Limited resources need to be allocated efficiently to maximize their impact. Data helps identify regions or communities that are most in need, ensuring that resources are targeted to address disparities and inequalities effectively.
- **Transparency and Accountability:** Availability of data fosters transparency and accountability in governance. Governments and organizations can be held accountable for their commitments and actions towards achieving the SDGs by citizens, civil society, and international bodies.
- **Public Awareness and Participation:** Data-driven information campaigns can raise public awareness about the importance of sustainable development and encourage active participation in initiatives to achieve the SDGs.

Risks of Data:

- **Data Privacy and Security:** As data becomes increasingly vital, the risk of data breaches and unauthorized access grows. Sensitive information, particularly personal data, needs to be protected to maintain public trust and avoid misuse or harm.

- **Data Quality and Availability:** Inaccurate or insufficient data can lead to misguided policies and ineffective strategies. Ensuring data quality and its availability on a regular basis are critical for informed decision-making and accurate progress tracking.
- **Data misuse and abuse:** Which may undermine the trust and legitimacy of data and its producers and users, especially in the context of political manipulation, misinformation, and disinformation.
- **Data Fragmentation and Integration:** Data from different sources may be fragmented, making it challenging to integrate and analyze comprehensively. Harmonizing data standards and improving interoperability are essential for a comprehensive understanding of progress across SDGs.
- **Biases in Data Collection:** Biases in data collection methodologies can result in an incomplete or skewed representation of certain populations, leading to policy gaps and potentially exacerbating inequalities.
- **Data Access and Capacity:** Ensuring access to data and building the capacity to analyze and interpret it at the local level are crucial challenges, especially in developing regions. Lack of access or data literacy can hinder progress in some areas.

The International Community should be working hand in hand to face these risks and leverage the contributions of data to support the successful implementation of the 2030 Agenda for Sustainable Development. Therefore, it is important to adopt a balanced and holistic approach to data that considers both its opportunities and challenges, as well as its ethical and legal implications. This requires strengthening the data ecosystem with adequate policies, standards, capacities, partnerships, and resources to ensure that data is used responsibly and effectively for the 2030 Agenda.

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

Developing countries can harness the benefits of the data revolution while managing associated risks, through:

1. Strengthen Data Infrastructure: Developing countries should focus on building robust data infrastructure that includes data collection, storage, and management systems. Investing in modern technologies and tools will enable them to effectively capture, process, and utilize data for various developmental purposes.

IN EGYPT: ICT 2030 strategy contributes to achieving the objectives of Egypt's Vision 2030, through building Digital Egypt. These objectives entail developing the ICT infrastructure; fostering digital inclusion; achieving the transition to a knowledge-based economy; building capacities and encouraging innovation; fighting corruption; ensuring cybersecurity; and promoting Egypt's position at the regional and international levels.

As part of MCIT efforts to provide high quality telecommunication services through a secured digital infrastructure, several projects were carried out to develop the national and international digital infrastructure.

- Implementing a three-phase comprehensive plan through Telecom Egypt at 100 billion EGP to **raise the efficiency of telecom networks** and upgrade the telecom infrastructure nationwide using cutting-edge technology, namely fiber optics. Efforts to boost Internet speed helped improve Egypt's ranking in fixed internet speed to become the highest in Africa, up from 40th in early 2019, according to Ookla.
- **Rolling out 4G and virtual landline licenses**, offered to mobile network operators (MNOs) in Egypt. In 2016, the four MNOs signed an agreement to obtain the licenses and radio frequencies. As a result, the state treasury received about $1.1 billion and EGP 10 billion in exchange for the licenses.
- **Carrying out a project to connect all 31,500 government buildings nationwide** through a fiber optic network to ensure service stability and continuity even during internet outages. More than 18,000 government buildings have been connected, and the rest of the buildings are in progress.
- **Supplying 2,563 secondary education schools in different governorates with telecom infrastructure** to enable high-speed internet access through fiber optics. Telecom networks were developed and 4,500 km of fiber optics cables were extended from telephone exchanges to the schools.
- **Establishing the National Center for ICT Service Quality Control and Monitoring** at 50 million EGP to measure the quality of mobile voice and data services provided by MNOs in Egypt following recognized global standards in measuring the quality of telecom services.
- Offering and assigning new frequency bands for MNOs in Egypt. 130 MHz in the 2600 MHz frequency band was offered, with nearly $2 billion in revenues. The aim was to enhance network readiness to provide next-generation ICT services while following global quality standards, meet the growing demand for telecom services in the Egyptian market, and support digital transformation and efforts of building Digital Egypt.
- **Developing a regulatory framework for licenses to establish and lease wireless communication towers** as part of a plan to expand network coverage and improve the quality of services. More towers were erected to accommodate the growing number of users in the Egyptian market.
- The President of the Republic inaugurated three submarine cable landing stations in Ras Ghareb, Zaafarana, and Sidi Krir, bringing the total number to 10 landing stations. The aim was to enhance the global infrastructure and ensure the continuity and stability of the service provided to beneficiary countries of international connectivity services.
- The President also opened the 2.8 billion EGP Regional Data Hub (RDH) of Telecom Egypt, with a 24-megawatt total capacity.
- Completing the Internet Corridor of Egypt (ICE) in Morshedeen Road, a 20-year-long-cherished dream of the ICT sector. ICE is a fiber optic crossing route connecting landing stations on the Red Sea to others on the Mediterranean. The project was implemented in one year.

- Developing a regulatory framework for providing IoT services in Egypt. With IoT being one of the top technologies of Industry 4.0, the framework enables the operation of smart city systems and digital services, including smart homes, smart meters, and smart mobility.

2. Promote Data Literacy and Capacity Building: To fully utilize the potential of data, it is essential to enhance data literacy and build the capacity of individuals and institutions. Training programs and workshops can empower government officials, researchers, and civil society to handle data responsibly and make informed decisions.

IN EGYPT: Multiplying the number of trainees and budget for technology training, with a target set to **train 250,000 young people** at 1.3 billion EGP in FY 2022/2023. The training strategy of MCIT is implemented in cooperation with global tech companies following a pyramid approach. It starts with providing basic training to enhance youth employability, followed by specialized training, then programs for qualifying young people for tech jobs.

- Successfully concluding training for two cohorts of the Digital Egypt Builders Initiative. DEBI is scholarship aimed at granting a professional master's degree in one of the following areas of specialization: data science and AI, cybersecurity, robotics and automation, digital arts, and FinTech. The initiative is carried out in collaboration with major international universities and local and global ICT companies to help learners gain hands-on experience. MCIT also cooperates with renowned firms and institutions to develop students' leadership, personal, and language skills. The first cohort was composed of 109 students and the second of 257. The students majored in data science and AI, digital arts, FinTech, robotics and automation, and cybersecurity. The training was delivered in cooperation with the University of Ottawa and Queen's University in Canada, University College Cork in Ireland, and Universiti Sains Malaysia (USM).

- Launching the Digital Egypt Cubs Initiative (DECI), a scholarship tailored to upskill younger students, from the first year of preparatory school to the second year of secondary school, nationwide. Areas of specialization include software development and digital arts, networks and cybersecurity, AI and data science, and robotics and embedded systems. DECI also involves activities for developing personal and leadership skills. The initiative is joined by nearly 8,400 students, and it includes a basic program that is attended by 3,937 students.

- Founding EUI in Knowledge City in the New Administrative Capital. EUI is the first specialized ICT university in Africa. It works to shape a generation of experts in informatics and future technologies. The University boasts four faculties: Faculty of Computing and Information Sciences, Faculty of Engineering, Faculty of Business Informatics, and Faculty of Digital Arts and Design. EUI partners with the world's top universities to grant students dual degrees.

- Launching Mahara-Tech, an online learning platform by ITI. The platform has attracted 435,000 learners.

- Building seven WE Applied Technology Schools, in collaboration with the Ministry of Education, in Cairo, Giza, Alexandria, Dakahlia, Suez, Minya, and New Valley. WE ATS is the first smart ICT-specialized school producing competent technicians.

- Establishing the Egyptian African Telecom Regulatory Training Center (EG-ATRC) of the National Telecom Regulatory Authority (NTRA) in Smart Village. EG-ATRC is the first telecom regulation-focused training center in Africa.

3. Foster Data Collaboration and Sharing: Encouraging collaboration and data sharing among different stakeholders, such as government agencies, NGOs, and private sector entities, can lead to a more comprehensive understanding of development challenges and foster data-driven solutions.

5. Prioritize Data Privacy and Security and Implement Data Governance Frameworks: As data flows increase, so does the risk of data breaches and misuse. Developing countries should prioritize data privacy regulations and security measures to protect sensitive information and build trust among citizens, businesses, and international partners. Creating comprehensive data governance frameworks is crucial for managing data effectively. These frameworks should encompass policies, guidelines, and ethical principles that govern data collection, storage, sharing, and usage.

IN EGYPT: In Egypt we aim at securing the welfare of citizens by empowering them to make informed decisions in the digital environment and by strengthening digital security as a foundation for digital transformation, economic growth and social prosperity. Therefore, we were really keen on developing policy approaches that enhance trust, security and resilience, but also on harmonizing these data security regulations with cross-border transfer of data to facilitate the free flow/movement of data.

The protection of personal data was guaranteed/regulated in Egypt by different sectoral laws, imposing confidentiality of data obligations, founded mainly on general principles of laws- including but not limited to- the Egyptian Constitution and Civil Law, the Cybercrimes Law, Labor Law. Capitalizing on Article (57) of the Egyptian Constitution, The Personal Data Protection Law no. 151 was enacted in 2020 - greatly drawn upon the GDPR -. The law is granting fundamental rights to the Data Subject through regulating the processing and storage of personal data by service providers and avoiding disclosure and processing of such data without consent of the respective individual.

Since, we are quite aware that the collection, storage and processing of data is at the heart of the digital economy, and much of this information is about people, and the key to making the digital economy work, relies on regulating the collection and use of data held about them. Allowing data subjects to be informed about the use and processing of their data and where applicable obtaining consent therefrom. Hence, the need for an easy Consent-based data sharing system, using for instance, smart contracts, that dynamically reflect the individual's consent over their personal data and allow them to provide or withdraw their consent over time. Such model would guarantee that individual consent is respected and that all participants in the data sharing platform are accountable.

Overall, embracing the data revolution offers tremendous potential for developing countries to leapfrog in their development journey.

3. **What national and international polices 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 considering the multiple dimension of data?**

We recognize that addressing the challenges faced by developing countries in the area of data for sustainable development requires a comprehensive approach that encompasses national and international policies, as well as support measures. Here are some key policies and support measures that can help tackle these challenges while considering the multiple dimensions of data:

1. National Data Governance Framework: Developing countries should establish a robust national data governance framework that outlines clear policies, regulations, and ethical guidelines for data collection, storage, sharing, and usage. This framework should also emphasize the importance of data quality, security, and privacy.

3**. Data Infrastructure Development**: Investing in data infrastructure is crucial for developing countries to strengthen their data capabilities. This includes improving internet connectivity, data storage facilities, and adopting modern data management technologies.

4. **Capacity Building and Data Literacy:** Support measures should focus on capacity building and data literacy programs for government officials, researchers, and the private sector. These initiatives enhance data-related skills and knowledge, enabling stakeholders to make informed decisions based on data-driven insights.

5. **International Technical Assistance and Funding:** International organizations and developed countries can provide technical assistance and financial support to help developing countries build and strengthen their data capabilities. This can include training programs, workshops, and grants to support data initiatives.

6. Data Collaboration and Partnerships: Encouraging data collaboration and partnerships between government, private sector, academia, and civil society can lead to better data quality and more comprehensive research. Public-private partnerships can leverage diverse expertise and resources to address sustainable development challenges effectively.

7. Data Ethics and Privacy Standards: International policies should promote data ethics and privacy standards that are applicable globally. Ensuring that data is collected, stored, and used responsibly is essential to protect individuals' rights and maintain public trust.

9. Data Integration and Interoperability: Developing countries can benefit from international support to improve data integration and interoperability. Harmonizing data standards and

adopting interoperable systems allow for a more comprehensive understanding of complex development issues.

10. Data Localization Policies: Developing countries should review data localization policies that ensure critical data relevant to sustainable development is stored and managed within their borders. This helps maintain data sovereignty and reduces dependency on external data infrastructures.

By adopting these policies and support measures, developing countries can overcome challenges in data governance, data quality, data capabilities, and scientific research. Emphasizing the multiple dimensions of data ensures a holistic approach that contributes to the achievement of sustainable development goals while respecting ethical principles and privacy concerns.

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

The Commission on Science and Technology for Development (CSTD) can play a significant role in promoting and advancing Data for development in Egypt and across the globe, especially in the context of the Global Digital Compact. Here are some key aspects of the CSTD's potential role:

1. Advocacy and Policy Guidance: The CSTD can advocate for the importance of data as a critical resource for sustainable development. By providing policy guidance and recommendations, the CSTD can help shape national data strategies and policies, aligning them with the principles of the Global Digital Compact and the broader sustainable development agenda.

2. Capacity Building and Technical Assistance: The CSTD can offer capacity building programs and technical assistance to developing countries, to enhance their data capabilities. This includes training in data collection, management, analysis, and utilization, empowering countries to leverage data effectively for development initiatives.

3. Facilitating International Cooperation: The CSTD can act as a platform for facilitating international cooperation and partnerships in the realm of data for development. By promoting knowledge exchange, sharing best practices, and fostering collaboration between countries, the CSTD can help accelerate progress towards achieving the Sustainable Development Goals (SDGs).

4. Data Ethics and Governance Standards: In the era of the data revolution, data ethics and governance are paramount. The CSTD can advocate for the establishment of international data ethics standards and best practices to ensure responsible data use and protect individuals' privacy rights.

6. Support for Data Localization Initiatives: The Global Digital Compact recognizes the importance of data localization for certain sectors, such as digital finance and e-commerce, to promote data sovereignty and local economic development. The CSTD can offer support and guidance to countries, on implementing data localization policies in a manner that balances data access and security.

7. Fostering Innovation and Research: The CSTD can encourage research and innovation in data-related fields, supporting efforts to develop cutting-edge technologies, data analytics, and data-driven solutions for sustainable development challenges.

8. Data for Disaster Management and Humanitarian Aid: In times of crisis and emergencies, data becomes crucial for effective disaster management and humanitarian aid. The CSTD can promote the use of data in emergency response, enabling quicker and more targeted assistance to affected populations.

In conclusion, the CSTD's role in the context of Data for development, including the Global Digital Compact, is multi-faceted and essential. By advocating for data-driven policies, facilitating cooperation, and providing technical support, the CSTD can contribute significantly to harnessing the potential of data for sustainable development.