

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

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Contribution by Tanzania

to the CSTD 2023-2024 priority theme on “Global cooperation in science,  
technology and innovation for development”

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**PRIORITY THEME 2:** Global cooperation in science, technology and innovation for development

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

Dear CSTD Member,

The [26<sup>th</sup> CSTD annual session](#) selected “Global cooperation in science, technology and innovation for development” as one of the priority themes for its 27<sup>th</sup> session (2023-24 period). This theme addresses SDG 17 “Strengthen the means of implementation and revitalize the Global Partnership for Sustainable Development” at the 2030 Agenda.

Although the contribution of science, technology and innovation (STI) to the achievement of other sustainable development goals (SDGs) is discussed in every session of the CSTD, SDG 17 itself has not been specifically addressed for several years in the Commission. Interaction among CSTD members has resulted in several pilot programmes for international collaboration in STI. However, there is a need to consider from a broad strategic perspective the question of international collaboration in STI, including its digital dimensions. Under this priority theme the Commission could discuss the status of global STI cooperation (including coordination and funding) in knowledge creation and dissemination, the diffusion and sharing of technology and alternative modes of technology creation and distribution such as open-source approaches.

Under this theme, the Commission will examine how STI organizations at the global and regional levels collaborate better to scale up their impact on key development challenges; how to ensure that the international STI agenda is aligned with the development priorities of the Global South and includes adequate mechanisms for cooperation and sharing; and finally what could be the role of the CSTD in coordinating and imparting directionality to international STI collaboration and technology sharing.

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 STI cooperative mechanism(s) at global or regional levels has your country joined in?**

Tanzania is a member of various regional collaborations such as African Union (AU), East Africa Commission (EAC), Southern African Development Commission (SADC), Indian Ocean Rim Association (IORA), Non-Aligned Movement (NAM) and various United Nations Organs and actions. All these collaborations have contributed to the country's development in STI.

Developed programmes to promote STEM and strengthening of NIS. Collaborative programmes which have promoted STI advancement include: UNESCO Tanzania; Human Innovation Development Fund (HIDF) which has phased out, and was funded by Department for International Development (DFID) UK, but currently Funguo Innovation Programme (also simply referred to as FUNGUO) which is a UNDP Initiative funded by the European Union as part of the "Business Environment, Growth and Innovation" (BEGIN) Programme. Other funders include UNDP itself and the UK Government through the Africa Technology and Innovation Partnerships (ATIP); the Information Society and ICT Sector Development Project in Tanzania (TANZICT) and Tanzania Innovation Support Programme (TANZIS).

**2. To what extent the existing cooperation programmes are aligned with the development priorities of participating developing countries?**

All existing collaboration programs have contributed to the country's development in STI as they are fully aligned with national development priorities drawn from the National Development Vision 2025 and the National Five year periodic Development Plans.

**3. What are the main outcomes of such mechanism(s)? And what are the impacts of the resultant cooperation on your country? Pls. include the gender dimension.**

- a) Collaboration through exchange of information, expertise and experience has facilitated the establishment of new STI institutions including HEIs such: as Muhimbili University of Health and Allied Sciences (MUHAS); University of Dodoma (UDOM); Ardhi University (ARU); Nelson Mandela African Institute of Science and Technology (NM-AIST) Arusha; Mbeya University of Science and Technology (MUST); Dar es Salaam Institute of Technology (DIT); and regulatory bodies such as Tanzania Commission for Universities (TCU); the National Council for Technical and Vocational Education and Training (NACTVET); increase of the number of R&D Institutions and Innovation Spaces.
- b) Allocation of human and financial resources for facilitating the operationalization of STI related institutions;
- c) Facilitating training to young Tanzanians in the fields of Science, Technology, Engineering and Mathematics (STEM) as well as Entrepreneurship and Management;
- d) Strengthening of the country's National Innovation System (NIS) in terms of the number of players and elements for examples R&D institutions, higher learning institutions, STI related regulatory bodies which form a sound basis for revamped and revitalized NIS; and
- e) Existence and growth of private sector especially innovation and technology start-ups, Small and Medium Income Enterprises (SMEs) coupled with several policies such as SMEs policy of 2003; Sustainable Industrial Development Policy (SIDP) of 1996 as well as TDV 2025, LTPP 2025.
- f) The budgetary allocation on STI has been increasing over the years. Until 2020/2021 fiscal year, a total of 51.99 billion has already been disbursed

through National Fund for Advancement of Science and Technology (NFAST), managed through COSTECH, to support research and innovation activities in Tanzania.

**what are the impacts of the resultant cooperation on your country? Pls. include the gender dimension.**

- a) Increase in number of R&D personnel from 6,502 in 2013/14 to 10,966 in 2020/2021. Increase in number of researchers per millions of populations increased 40 in 2006/7 to 69 in 2013/2014.
- b) Improved National Innovation System (NIS) evidenced by refined role of LGAs in economic and development activities; increased participation of private sector; increased society participation in a technology driven economy activities; and increased regional and international collaboration and of Foreign Direct Investment (FDI), Multinational Enterprises (MNEs) and joint ventures in research.
- c) Increase in number of female students joining degrees in engineering science, natural sciences and ICT from 17328 in 2017 to 18244 in 2019. Also increase in number of females graduating with degrees in engineering science, natural sciences and ICT from 3337 in 2018 to 4408 in 2020.

**4. What are the main difficulties member countries have encountered or are facing when implementing the cooperation mechanisms?**

Low level of investment (funding) which leads to less or delayed implementation of STI programs and hence low impacts than targeted. Inadequate involvement of stakeholders especially industries towards investing in technology transfer agreements and in mass production of local technologies and innovations to expand the market internally and externally. Low investment in implementing programs and projects in STI development is due to the fact that investment in STI does not give immediate results and profit and thus less attraction to investors

**5. In respect of achieving the objectives and goals, what are the factors contributing to the success or failure of the cooperation mechanism(s) that your country has joined in?**

Funding (financial resources), capacity and adequacy of human resources, capacity and capability (appropriate skills and infrastructure), approaches on data governance (legal and regulatory frameworks). In addition, protocols implementation based on present legislative approval within Member States which sometimes are time consuming and the multiplicity of cooperation mechanisms contributed by historical, political, strategic and economic imperatives. Moreover, the extent of involvement of key stakeholders in implementing programs and projects for STI.

**6. In your country's view, what role could CSTD play in coordinating and imparting directionality to international STI collaboration and technology sharing?**

CSTD can facilitate programmes which will increase and create conducive environment for countries to collaborate. Organizing regional or global discussion forums on ensuring of availability of common/unified and conducive legal and regulatory frameworks, and data governance in order to facilitate smooth cross border data sharing. Moreover, the collaborations could embrace foresight methods and tools allowing to develop a comprehensive understanding of STI opportunities and to systematically consider innovation scenarios and alternative technology pathways. Collaborative foresight should engage stakeholders and experts contributing to diverse knowledge, including local knowledge, and ethical perspectives on new emerging technologies.

Contact person(s) responsible for projects / policies and international collaboration in this context in case clarification is needed on the inputs are: Dr Alexander Mtawa ([alexander.mtawa@moe.go.tz](mailto:alexander.mtawa@moe.go.tz)) and Tabitha Etutu ([tabitha.etutu@moe.go.tz](mailto:tabitha.etutu@moe.go.tz))

Sincere regards,

CSTD secretariat