

**UNITED NATIONS COMMISSION ON SCIENCE AND TECHNOLOGY
FOR DEVELOPMENT (CSTD), twenty-fifth session
Geneva, 28 March - 1 April 2022**

**Science, technology and innovation for sustainable urban development in a
post-pandemic world**

Statement submitted by

H. E. Mr. Douglas Letsholathebe
Minister of Tertiary Education, Research, Science and Technology
Botswana

DISCLAIMER: The views presented here are the contributors' and do not necessarily reflect the views and position of the United Nations or the United Nations Conference on Trade and Development.



Republic of Botswana

**25th SESSION OF THE COMMISSION ON SCIENCE AND
TECHNOLOGY FOR DEVELOPMENT VIRTUAL MEETING**

**HIGH LEVEL ROUNDTABLE ON
SCIENCE, TECHNOLOGY AND INNOVATION FOR SUSTAINABLE
URBAN DEVELOPMENT IN A POST- COVID-19 WORLD**

STATEMENT

BY

HON DR DOUGLAS LETSHOLATHEBE

**MINISTER OF TERTIARY EDUCATION, RESEARCH, SCIENCE AND
TECHNOLOGY**

REPUBLIC OF BOTSWANA

30th March 2022; 1400hrs

Secretary-General of UNCTAD, Ms. Rebecca Grynszpan,
CSTD Chair, Mr Al-Qurashi
Excellencies,
Ladies and gentlemen,
Good afternoon,

Mr Chair, let me begin by thanking you for yet another opportunity to speak at this forum. I find the theme under discussion today logically following on last year's one on 'a sustainable and resilient recovery from the COVID-19 pandemic'. Science, Technology and Innovation, (STI), is crucial for sustainable development in a post (COVID-19), and more so for the urban development.

Mr Chair, there is industrialisation, modern health facilities, electricity, engineered water supply, sanitary upgrades, good roads and other infrastructure, better education in urban areas. These attractive developments in cities come at a heavy cost though. There is exodus from rural that results in city overcrowding, deforestation that exacerbate climate change and biodiversity loss, increased erosion as well as habitat change and loss. We also experience loss of cultural values and social change compounded by increased crime. Cities already place a huge stress on the planet's resources by emitting more than 75% of the world's greenhouse gases that are the main drivers of climate change.

Sadly, urban areas do not deliver on the dream to provide improved livelihoods as a result of new jobs, general modernisation with an upgraded built environment. A large proportion of the world's population with unmet needs live in urban areas, also forming peri-urban rings with deplorable social, economic and environmental conditions. Cities that form the main component of urban areas find themselves at the epicenter of rising poverty, hunger, resource consumption, bio-diversity loss just to mention but a few. Urban areas have experienced an unprecedented rate of growth from about 35% of the world's population seven decades ago, to about 55% today. This trend is expected to progress to 70% by 2050.

Mr Chair, COVID-19 pandemic has only made things worse. Global economies and Public Health Systems have been badly exposed as 90% of all reported cases globally have been in urban areas. Thus, any fruitful discussion of sustainable development should focus on urban areas and how to capitalize on their positive energy and innate diversity in forging new pathways toward urban sustainability. I am a strong proponent for applying smart solutions derived from STIs to address the inherent problems of urban areas.

It is the concern of us all at the Commission of Science and Technology for Development, that the marked technological and digital divide exists within and between countries as a hindrance to development. In Botswana, despite the efforts the Government is making to close the

digital gap, especially between urban and rural areas, there are still disparities. With the global divide, this means that it is true in developing countries where the availability and use of technologies is far from optimal. Training in STEM and the application of STI that foster development leave much to be desired mostly. Exposure to crucial competences that engender the drive for innovation is thus not adequate and quality education and know-how are still a challenge.

Mr Chair, ladies and gentlemen, our challenges go well beyond securing access to technologies and developing the physical and ICT infrastructure. In Botswana, challenges include skills shortage for quickly modernising the education and training system, building R&D capacity and coordinating R&D efforts to focus on priority areas. There also exists the problem of building absorptive capacity in SMEs and promoting diffusion of technologies and developing a stronger private sector to spearhead change. Creation of new and improved goods and services for domestic use and export through research and innovation is seriously challenged. Establishing higher value-addition activities and manufacturing are still at a rudimentary stage.

Our National Vision 2036 aspires for prosperity for all Botswana citizens. The current reforms are actively agitating the land scape in order to create economic diversification, new and decent jobs that benefit youth, women and marginalised groups, and ultimately achieve

structural transformation of the economy in a sustainable manner. Beyond the pandemic, my Country is aiming to build back a robust economy by pursuing national transformation initiatives. In order to address the effects of the COVID-19 pandemic Botswana instituted implementation of an Economic Recovery and Transformation Plan and the Reset Agenda. Some of the key tenets of the Reset Agenda are Mind-set Change, Saving Batswana from COVID-19, and Value Chain Development.

Mr Chair, the national institutional and policy framework is steadily developing. The current national strategic masterplan, Vision 2036, which looks at creating a knowledge-based society, is our good guiding tool here. We have also developed policies and other instruments, some of which are directly geared towards using STIs for sustainable development. Specifically, Botswana National Research, Science and Technology Plan of 2005; Assessment of National System of Innovation of 2010; Science, Technology and Innovation Policy of 2012; National Report on the Implementation of the New Urban Agenda of 2021; National Intellectual Property Policy still in draft stage; the Indigenous Knowledge Systems Strategy for Research and Innovation still in draft all attest the Botswana's intention for inclusivity.

Botswana indeed strives to become a knowledge-based economy, and R&D in STI is taken very seriously. Key bodies such as the Special Economic Zones Authority, Botswana Institute for Technology,

Research and Innovation, Botswana Digital and Innovation Hub, Botswana Vaccine Institute, National Agricultural Research Development and Innovation, as well as Universities are increasingly working together for synergy. My Country has collaborated with UNCTAD on the review of Botswana's Research, Science, Technology and Innovation Policy of 2012 so that the local synergies are strengthened further.

Mr Chair, the COVID-19 pandemic has pushed nations and organisations alike to create smart STI solutions for sustainable and smart cities. Governments of developing nations need to prioritize smart STI solutions that are focused on improving urban sustainable development, ensuring value for money to help urban centres to cope with the many urban challenges due to urbanization. Emerging problems in developing countries such as traffic jams, long queues for Governments' services, increasing crime rates, digital divide, and access to healthcare services can be solved by faster provision of smart STI solutions.

The Secretary General's recommendations for countries are welcome and will be tailored for the Botswana's context. They call for adjusting pre-pandemic priorities and resource allocation strategies, cultivate and empower local ecosystems for urban innovation, build local capacity to deal with the complexity of urban digital transformation, introduce new and more equitable financing mechanisms, rethink

urban areas as data infrastructures, take an integrated approach to policy setting for sustainable urban development, and build capacity in digital mind-sets, skills and technology acceptance.

Mr Chair, the Secretary General's report gives salient suggestions for the international community, and I find them worth noting. Indeed, international organisations should help nations, especially the developing economies, to recover from the pandemic effects. Cross-country innovative R&D should be enhanced. Policies should be developed across Governments and developing countries should be assisted.

There should be cross-border enhancement of capacity-building support to increase response to emergency situations. These should promote technology transfer in a tailored manner and should strengthen scientific cooperation in digitally enhanced teaching and learning to ensure that digital literacy and digital technologies become a central component of existing and future school curricula, at all levels, from pre-primary schools to universities.

Mr Chair, international collaboration and partnerships are very important. What comes to mind immediately is the unprecedented global collaboration in the development and use of COVID-19 vaccines. It must be signalled here that the least developed and developing countries face the greatest challenges with STI, making it an arduous

challenge to deal with sustainable urban development. Collaboration with more advanced countries, dwelling on STI R&D geared towards bringing actual sustainable solutions to urban problems will go a long way to changing the landscape.

Goal 17 of the SDGs explicitly calls for working together by all, both locally and across borders, and there is need for increased international cooperation in solving the standing and emerging problems of the urban areas. These problems are generally multi-faceted and quite complex and the more advanced countries with robust economies should collaborate strongly with other developed countries. Technology and innovation transfer should be encouraged, so that the wheel is not being continuously reinvented, but taken to other environments and adapted. To improve the collaboration, another important thing is to promote Foreign Direct Investment.

Fostering more sustainable urban futures requires Government and other stakeholders, together with international organisations, to reorganize the functioning of urban socio-eco-technical systems. Assessing the spectrum of new practices implemented in specific metropolitan regions provides insight into how other urban areas might adapt and apply them.

Mr Chair, I continue to commend UNCTAD for its ongoing support to developing countries on STI policy. I thank you all for your kind

attention and look forward to a fruitful discussion and exchange of experiences and perspectives during this CSTD session.