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High-level roundtable on "Impact of rapid technological change on the achievement of the Sustainable Development Goals"

Statement submitted by

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Sri Lanka

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21st Annual Session of the Commission on Science and Technology

for Development (CSTD)

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High-level roundtable on "Impact of rapid technological change on the achievement of the Sustainable Development Goals"

by

By Hon. Dr. Sarath Amunugama,

Minister of Science, Technology and Research of Sri Lanka

14 May 2018, Geneva

The Permanent Mission of Sri Lanka to the United Nations

and other International Organizations in Geneva

High-level Roundtable on Monday Afternoon:

I am indeed privileged to make an intervention at the 21st Session of the Commission on Science & Technology for development on behalf of Sri Lanka.

As we all are aware, Science and Technology has a significant role in contributing to national development goals through research & development, innovations and inventions. Recognizing this, my Ministry is specially engaged in promoting demand driven research, innovation focused industry-research tie-ups and creating enabling environment through finically and technically supporting techno entrepreneurships. On the other hand, special focus is given on developing and adapting emerging technologies such as biotechnology, nanotechnology, robotics, artificial intelligence etc. Science popularization is being promoted at all levels through various initiatives such as promotion of Science, Engineering, Technology and Mathematics (STEM education), development of technology based curriculum in collaboration with relevant line Ministries etc. In essence, the Ministry continued to accord the highest priority to create a link between research, industry tie-ups and creating a technology based space for economic growth.

With the rapid changes that are taking place in technological development in the world, it is important that countries develop strategies meeting these emerging and disruptive technologies so as to become competitive regionally and globally. These emerging technologies mainly include nanotechnology, biotechnology, robotics and automation, Artificial Intelligence (AI), solar and space technologies etc. As we are working towards achieving SDGs by 2030, mobilizing these emerging technologies will provide more opportunities and pathways in achieving them compare to traditional methodologies. Almost all SDGs indirect links to these emerging and disruptive technologies whereas some of the SDGs namely, health, education, industry innovation, sustainable consumption and production etc has a direct and strong influence in achieving the targets.

However, application of these new and emerging technologies involve various challenges. Even though new technological development increases the market share as well as competitiveness, if the technology introduced into the marketplace through investor pressure without comprehensive studies on possible hazards and issues that will bring a negative impact on the entire industry both locally and internationally. This is seen in biotechnology.

Nevertheless , better mechanism are required for identifying health hazards from emerging technologies, especially since most developing countries do not have the capacity to make comprehensive risk assessments or monitor imports. Similarly, Robotics and Automation will result in reduced employment opportunities for the growing populations of developing countries. While many developed countries have safety nets like unemployment benefits which developing countries are unable to afford. Unemployment can lead to social tension within communities in developing countries.

Developing countries must have safety nets in place to prevent social tension. Information technology has changed the culture of youth with many being addicted to games, the free availability of pornography and vulnerability to social media blackmail and scams. Less physical activities as result of these addiction again is resulting in series of health issues as well. While better monitoring might help, there is the possibility that these might infringe on personal freedom and be exploited to suppress political dissent

As it is evident, there is regional disparity in introducing and implementing emerging technologies. Therefore, it is important that the regional disparities and inequalities are reduced and minimized so

as to make sure that new and emerging technologies benefit all the society. The experience is that inequalities are exacerbated between developed and developing countries and within countries, between cities and the countryside, between the rich and the poor and between genders and between the older and younger generations. Developed countries control the technologies and the efforts at WSIS to make an impact has been a failure, largely because the WSIS process was largely controlled by industry. The differences within countries can be alleviated by state intervention and has to some extent been reduced by lower costs, initiatives in education and older generations progressively being replaced by a more technology-savvy population. The international community can facilitate international collaboration as mentioned below but developing countries must invest rapidly in science and technology and establish enabling mechanisms, for which the political will is largely absent.

Effective STI policies and strategies may help to prepare societies for rapid technological change while providing adequate rewards for the professional community to facilitate and implement these policies and strategies. Currently, in Sri Lanka although good policies and strategies are in place in support of emerging and disruptive technologies, the implementing of such is very weak mainly as a result of not having adequate funding, industrial infrastructure and brain drain etc.

Providing access to quality science education to all sections of the community, establishing mechanisms to discourage brain drain and facilitate the return of diaspora trained in the sciences and above all increased investment by developing countries in science, technology and research are some possible interventions in this regard.

International collaboration plays a potential role in this regard as well. Improving human resource capacity in emerging technologies through postgraduate study scholarships and organizing workshops, facilitating collaborative research and pathways for products of developing country research to enter the marketplace (technology transfer and IP protection mechanisms) and dissemination of knowledge on best practices in developing countries are some such international collaboration we can think of.

I conclude my intervention and looking forward to work with CSTD in the future