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Technology and innovation for cleaner and more productive and competitive production

Statement by

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Technology and Innovation for Cleaner and More Productive and Competitive Production

Your excellencies from the governments, our colleagues from the UN, observers, ladies and gentlemen, it's a really great pleasure to join you in this 26th annual session of the United Nations Commission on Science and Technology for Development (CSTD), and thank you for inviting UNFCCC Secretariat.

Colleagues, the latest IPCC report recognizes that having the right policies, infrastructure and technology in place to enable changes to our lifestyles and behavior can result in a 40-70% reduction in greenhouse gas emissions by 2050.

The report makes it very clear to us that innovation in climate mitigation and adaptation technologies has seen enormous activity and significant progress in recent years. It also highlighted that technological innovation can leverage action to mitigate climate change by reinforcing other interventions.

The currently widespread implementation of solar photovoltaic (solar PV) and light-emitting diodes (LEDs) in developing countries, could not have happened without technological innovation. Circular economy (CE) is another effective approach to mitigate industrial GHG emissions and has been widely promoted worldwide since the fourth IPCC assessment report (AR4). From an industrial point of view, CE focuses on closing the loop for materials and energy flows by incorporating policies and strategies for more efficient energy, materials, and water consumption, while emitting minimal waste to the environment.

Another area where sustainable development, climate change mitigation and technological innovation globally interact is digitalization. Digital technologies, when properly used, can contribute to, and promote large increases in energy efficiency through coordination and economic shifts. Digitalization, referred as Industry 4.0, facilitates further improvements in process control and optimization through technology development involving sensors, communications, analytics, digital twins, machine learning, virtual reality, and other simulation and computing technologies.

This session happens at a very critical time in our efforts to combat climate change. While there are catastrophic natural disasters, such as earthquakes, wildfires and floods, happening around the world, new record temperatures were measured in many parts of the world - as the IPCC published its report.

And the messages in the report are loud and clear. Without a doubt climate change is progressing even faster than anticipated, leaving humanity lesser time to get on track in its effort to fight its worst outcomes.

Recently, the UNFCCC secretariat has published the synthesis of 193 Parties' Nationally Determined Contributions submitted by end of 2022. The report recognized development of many effective policies and strategies to promote technology innovation, including by promoting use of renewable energy, and accelerating adoption and transfer of low-emission and climate-resilient technologies, such as zero-emission mobility.

The synthesis report of Long-Term Low Emission Development Strategies has shown that almost all Parties considered innovative technologies are fundamental in addressing climate change and the economic growth due to their strong ability to create jobs, increase competitiveness, and enhance living standards. Most of countries reported in their LT-LEDS mentioned the circular economy as an objective or guiding principle for their long-term low-emission development, particularly in the context of mitigation.

Under UNFCCC, more than 100 developing countries have conducted their Technology Needs Assessments in which they prioritized key mitigation and adaptation sectors and technologies, including innovative technologies, identified barriers and enablers to climate technology transfer, and expressed their need to

be supported with numerous concrete technology action plans and project ideas they commissioned. For example, Bhutan is making rigorous conservation efforts and remains the only carbon-negative country in the world. However, Bhutan's GHG emission has been increasing and has almost doubled in 2015 compared to 1994 figures. Identified in their TNA and subsequent request by NDE, CTCN supported Bhutan in developing waste management payment and sustainable operation strategies towards establishing a circular economy.

The UNFCCC Technology Mechanism plays a crucial role in facilitating development and transfer of climate innovative technologies. The Technology Executive Committee, as the policy arm of the Technology Mechanism is working on sustainable transformation on the following sectors: water-energy-food nexus, buildings and infrastructures, transformative industry, and nature and ecosystems. The Climate Technology Centre and Network, as the implementation arm of the mechanism, supports the Latin America and the Caribbean Circular Economy Coalition to develop a region shared-vision on circular economy, and developed circular economy roadmaps for abating GHG emission reduction in waste sectors in South Africa, Zambia, Zimbabwe, Malawi and Kenya.

More ambitious climate action and remains the top priority for all of us around the world. And as stated prominently in the Paris Agreement: climate technology, innovation, and research and development are a crucial part of this endeavor.

We all hope that the outcome of this session will also contribute to building the momentum towards success at COP 28 in Dubai. And of course, beyond that. We are all gearing up for COP 28, it has to be a success for the process, but more importantly for everybody around the world.

The best time to raise climate ambition was yesterday. The next best time is today. And how can nations and stakeholders raise ambition? By investing in innovation, research and development and climate technologies.

Colleagues, I wish you a productive session today. Thank you very much.