Item 11: *Space and Climate Change*

[*Check against delivery*]

Mr. Chairperson,

Cognizant of the importance of space for climate change, Brazil has systematically worked to further develop space applications as well as to disseminate satellite data, products and knowledge which can assist in the monitoring and preservation of natural resources, in promoting the better understanding of climate variables and climate change and in the monitoring and mitigation of the effects of natural disasters. Additionally, to ensure that environmental policies are executed in a transversal way, Brazil's Ministry of Environment and Climate Change has created a National Authority for Climate Security and President Lula will command a government council to deal with climate security.

The country has also made new advances in the modelling of the effects of changes in oceans and the atmosphere through the Model for Ocean-aNd-Atmosphere prediction (MONAN), a community model of the Earth System that will provide more accurate information on weather, climate, and air quality. In order to incorporate state-of-the-art techniques and knowledge in this new numerical modeling of the Earth System, the National Institute for Space Research, INPE, will have to integrate not only the frontier aspects of natural sciences (climate physics, ecology, ocean dynamics, atmospheric aerosols, and cloud microphysics, data assimilation from satellites, among others), but also of applied sciences (artificial intelligence, high-performance processing, data handling, and numerical methods).

Brazil has also been a pioneer in South America in monitoring land use changes: deforestation and fire. Currently, there are three operational projects for land use and land cover monitoring based on remote sensing satellite images in the Amazon region: the Brazilian Amazon Rainforest Monitoring Program by Satellite (PRODES), the Real-Time Deforestation Detection System (DETER) and the land use and land cover mapping system (TerraClass). The products provide the state of natural vegetation cover in Brazil and produce daily deforestation alerts for mitigating illegal deforestation and forest degradation.

Brazil is also actively engaged in the preparation this year's UN/Austria Symposium. It will present the country's experience in combining forecast on the urban expansion, changes in land use and hydrodynamic to create a methodology capable of providing geographic information that identifies the locations with the highest risk of flooding in cities, including those caused by extreme rainfall. The pioneering work is based on data from the Metropolitan Region of São Paulo, and Brazil believes it can be used by other municipalities to better inform their public policies.

Just before concluding this statement, I would like to mention that the city of Belém do Pará, located within the Amazon region, will host the 30th Conference of the Parties to the United Nations Framework Convention on Climate Change (COP30), to be held in 2025. It will be a momentous occasion for UN climate talks to take place in a city located in the world's largest rainforest.

Thank you.