## Agenda item 9: Space and Sustainable Development

Mr. Chairman and Distinguished delegates,

The Indian delegation is pleased to deliberate on the agenda item 'Space and Sustainable Development'.

With one sixth of total world population, importance of sustainable development for India is enormous. The country has adopted comprehensive and holistic development paradigm encompassing the social, economic and environmental dimensions of development and working towards the sustainable future of the earth.

India being a tropical country, frequently experiences natural disasters such as cyclone, floods and droughts. Moreover, very high population exerting enormous pressures on available natural resources. Therefore, it is imperative to sustain the ability of natural systems to provide environmental and ecosystem services on which the economy and society depend. In this context, space technology plays an important role in assessing the natural resources, environmental protection and thereby achieving economic and social development.

Mr. Chairman,

India has designed, developed and launched Earth Observation satellites which are providing valuable data in the domains of land, water, weather and ocean.

Satellite data with synoptic and repetitive coverage at different spectral bands and resolutions helps in detecting temporal changes as well as status of natural resources. Thus, large amount of information derived from earth observation satellites are used in addressing food and water security, biodiversity conservation, disasters mitigation and responding to climate change impacts. With improved data from current sensors and analysis methodology, a number of projects have been taken up which clearly demonstrated the usefulness of sustainable planning at local scales, bringing participation of stakeholders and evaluating the impacts of various projects.

Mr. Chairman,

India is regularly carrying out biennial forest mapping using satellite data. India's total forest cover has increased by more than three percent during 2011 to 2021. This is mainly attributed to increase in very dense forest, which grew by 20 percent during the period.

Towards increasing the use of renewable energy, selection of hydroelectric site using satellite data and GIS have been found to be effective especially in the remote mountainous areas. India increasingly emphasize on e-mobility to reduce dependency on fossil fuels. Thus, India is continuously making efforts to enhance $CO_2$ removal through increasing forest and tree cover and to improve energy efficiency measures without compromising on the developmental priorities of the country.

Mr. Chairman,

Wetlands are considered as an important ecosystem interconnecting the processes between land, hydrology, flora and fauna. On account of faster economic development and growing population, some of the wetland areas are being changed continuously. In this regard, National Wetland Inventory project have been carried out with the objective to update wetland inventory and perform decadal change analysis using satellite data. It has helped better management and protection of wetland resources.

Using satellite data, India has carried out desertification and land degradation status mapping and change analysis using satellite data following the United Nations Convention on Combating Desertification (UNCCD) guidelines. Three mapping cycles have been completed in last two decades. The information has been used in generating the action plans for combating the desertification and checking the process of land degradations.

Coral reefs provide critical coastal and marine habitats and have enormous ecological and economic resource value. Worldwide decline in coral species abundance, mass coral bleaching events and overall loss and degradation of coral reef habitats are serious environmental issues today. Space based remote sensing has proved its potential in mapping, monitoring, modeling and management of this remote keystone ecosystem.

Mr. Chairman,

In conclusion, while underlining the usefulness of space technology in sustainable development, India is ready to share technological experience in this important area.