

**Agenda item 8: Space and Sustainable Development****Mr. Chair and Distinguished delegates,**

The Indian delegation is please to brief on the agenda item ‘Space and Sustainable Development’.

India is increasingly following the path of development to facilitate the society to meet their own needs, at the same time decreasing the human impacts, reducing environmental risks and ecological scarcity. The country has adopted comprehensive and holistic development paradigm and working towards the sustainable future of the earth. In this context, Space technology plays an important role in mitigating the unsustainable exploitation and degradation of land including host of other natural resources. Currently, number of Earth Observation satellites in the orbit are providing valuable data in the domains of weather, ocean, land and water resources.

**Mr. Chair,**

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.

Earth Observation systems provide user community with inputs to conserve biodiversity, water resources management, promote sustainable agriculture, coastal area management, forest area management, managing and improving energy resources, mitigate natural and anthropogenic disasters, respond to climate change and its impacts, improve weather forecasts and manage ecosystems. With improved data from current sensors and analysis methodology, a number of projects have been taken up which clearly demonstrated the usefulness in planning at local scales, bringing participation of stakeholders and evaluating the impacts of various projects.

**Mr. Chair,**

A national programme has been initiated for community level biodiversity mapping in the country. Coral reef is also an important link in the biodiversity chain, and a programme for mapping and monitoring the coral reefs resources and its health, using space inputs is being carried out.

India is regularly carrying out biennial forest mapping using satellite data. The recent studies show that 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.

Identification of forest disturbances is a crucial step in effective forest and environment management. An automated algorithm has been employed for identification of forest cover loss locations using temporal information from satellite data.

India has been monitoring the Himalayan glacial lakes during June to October every year, since 2011, using satellite data. Assessment of the retreat/advance of glaciers spread over different parts of the Himalayan region is also being studied using both optical and microwave data. Snow cover products are being generated of Himalayan region and made available to users through ISRO's Geoportal.

**Mr. Chair,**

Using satellite data, India has completed 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.

Wetland are diverse and productive ecosystem. To know the nature and distribution of wetlands, 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.

**Mr. Chair,**

Space 2030 agenda aims at enhancing the use of space science and technology towards implementation of 2030 agenda for sustainable development. Satellite technologies can help monitor the effects of climate change, improve natural resource management, and help in preventing threats to biodiversity. Space based information is being widely used in India for developing sustainable food production systems and implementing resilient agricultural practices that increase productivity, maintain ecosystems, strengthen capacity for adaptation to climate change, extreme weather, drought, flooding and other disasters and that progressively improve land and soil quality. Focus has also been laid out to promote the implementation of sustainable management of forests, halt deforestation, restore degraded forests and increase afforestation.

**Mr. Chair,**

Indian delegation, in conclusion, would like to convey that India is exploiting the potential of space technology in various other domains, to make the benefits reach grass root. India has the necessary expertise to realize this and has demonstrated the same through various application projects towards achieving sustainable development.

**Thank you Mr. Chair and distinguished delegates.**