# India

# Agenda item - 6

# **Remote Sensing**

## Madam Chairperson and Distinguished delegates,

ISRO has put in place comprehensive earth observation systems and associated ground segments in past few decades. The data provided by the ISRO's Low Earth Orbiting Indian Remote Sensing (IRS) series of satellites and Geostationary INSAT series of satellites are being used for various applications of land, water, ocean and atmosphere. Various instruments on-board IRS satellites provide data in varied spatial, spectral and temporal resolutions which cater to different user segments in the country.

## Madam Chairperson,

At present, 17 remote sensing satellites in low earth orbit and two meteorological satellites in Geostationary orbit are providing data operationally for various applications. Data from Indian Remote Sensing satellites are acquired at the ground stations of Hyderabad and Antarctica and additionally, data downlinks are enabled at seven Ground Stations across the globe.

#### Madam Chairperson,

The National Natural Resources Management System (NNRMS) which was put in place as interface mechanism between Users and ISRO/DOS is now replaced with Space Applications Management Systems (SAMS) with enhanced objectives. Apart from governmental sectors, private sector, non-governmental organizations and academia also utilize this technology in different developmental sectors of the country.

#### Madam Chairperson,

The major application projects include, Space based Information Support for Decentralised Planning, Periodic mapping of Land use/ Land cover and land degradation under Natural Resources Census, Indian Forest Cover Change Alert System, Watershed development planning and monitoring activities, Crop production forecast, Horticulture development, Irrigation infrastructure assessment, Snow and Glaciers dynamics, Inventory and Monitoring of Glacial Lakes/ Water Bodies and Identification of suitable sites for social forestry. India has formulated the National Information System for Climate and Environment Studies (NICES) for supporting climate studies.

# Madam Chairperson,

Space technology applications in governance is supported by ISRO's Geoportal the "Bhuvan", Meteorological and Oceanographic Satellite Data Archival Centre (MOSDAC) and Visualisation of Earth observation Data & Archival System (VEDAS). Bhuvan was extensively used for societal applications by policy makers during COVID-19 pandemic in 2020.

## Madam Chairperson,

As Chair of Committee on Earth Observation Satellites (CEOS) for 2020, ISRO hosted CEOS Plenary in October 2020. India actively participates in the Group on Earth Observations (GEO) initiatives and is also supporting the G20 initiative of GEO, including the initiatives on Agricultural Monitoring, APRSAF initiative on Space Application For Environment (SAFE), Forest Observation, Water strategy and Data sharing.

India has committed to share its remote sensing satellite data with ASEAN countries for resource assessment and disaster management support. India actively supports capacity building in Remote Sensing through hosting United Nations affiliated Centre for Space Science and Technology Education for Asia and the Pacific (CSSTEAP), since 1995.

## Madam Chairperson,

It is envisaged to realise a Geo Imaging Satellite (GISAT) in geostationary orbit, during the current year, to enable near real time imaging.

## Madam Chairperson,

In conclusion, the Indian delegation would like to convey this valued gathering that India has developed the necessary expertise to take the benefits of space technology to the grass root level and is committed to share her experience with all the member nations.

# Thank you Madam Chairperson