ESCAP_Agenda Item 8: "Space and sustainable development" (rev.)

Since its initiation in 1994, ESCAP's Regional Space Applications Programme for Sustainable Development (RESAP) has engaged 34 members and associate members across Asia and the Pacific. It promotes the exchange of knowledge, skills, and good practices, and supports field projects to meet countries' geospatial information and capacity development needs.

Through the Asia-Pacific Plan of Action on Space Applications for Sustainable Development (2018–2030) and the 2022 Jakarta Ministerial Declaration, and with continued financial and technical support from China, India, Indonesia, Japan, the Republic of Korea, the Russian Federation, and Thailand, countries are empowered to access, apply, and develop applications in space science and digital innovations to advance the 2030 Agenda for Sustainable Development and contribute to the Space2030 Agenda led by UNOOSA.

The ESCAP secretariat actively implements initiatives aligned with the Plan of Action. It maintains the Geospatial Good Practices Database and Dashboard, a regional platform showcasing how space applications and digital innovations support sustainable development. Over 4,000 actions have been recorded, demonstrating the critical role of geospatial tools in achieving the Sustainable Development Goals (SDGs) efficiently and equitably. Growing public and private investments are expanding access to affordable, actionable geospatial data, supporting disaster risk reduction and development.

One initiative is the development of impact-based forecasting tools that integrate seasonal climate forecasts with geospatial vulnerability data. These tools help tailor disaster early warning systems to the needs of vulnerable populations and critical sectors like agriculture and energy. Training has been delivered in Cambodia, Nepal, and Tajikistan.

Field projects further demonstrate innovative applications. In collaboration with China, Indonesia, the Philippines, and Thailand, ESCAP is deploying SATGPT, an AI-powered tool for rapid flood mapping in high-risk, low-capacity countries. Another initiative with China, Indonesia, Malaysia, and the Philippines promotes crop biodiversity through space applications.

With support from China, India, the Russian Federation, and Thailand, ESCAP is helping Kyrgyzstan, Tajikistan, and Uzbekistan use geospatial data to monitor agricultural drought and soil salinity. Institutional capacities have been built in Cambodia, Lao PDR, and Thailand to use a cloud-based crop monitoring system.

A project with Indonesia and Thailand demonstrated satellite data use for designing poverty reduction and traffic safety programs. ESCAP also completed an initiative with Cambodia, Lao PDR, Mongolia, the Philippines, and Thailand to enhance air pollution monitoring using data from Pandora and Korea's Geostationary Environment Monitoring Spectrometer instruments.

Since 2018, ESCAP has offered annual fellowships for 5–6 young professionals from developing countries to study GIS and remote sensing at CSSTEAP in India. To date, 33 professionals have graduated, over half of whom are women. ESCAP also offers free online courses on big Earth data, cloud computing, and AI, with women making up at least 34% of participants in its capacity-building activities.