

# Implementation of the Regional Space Plan of Action for Sustainable Development

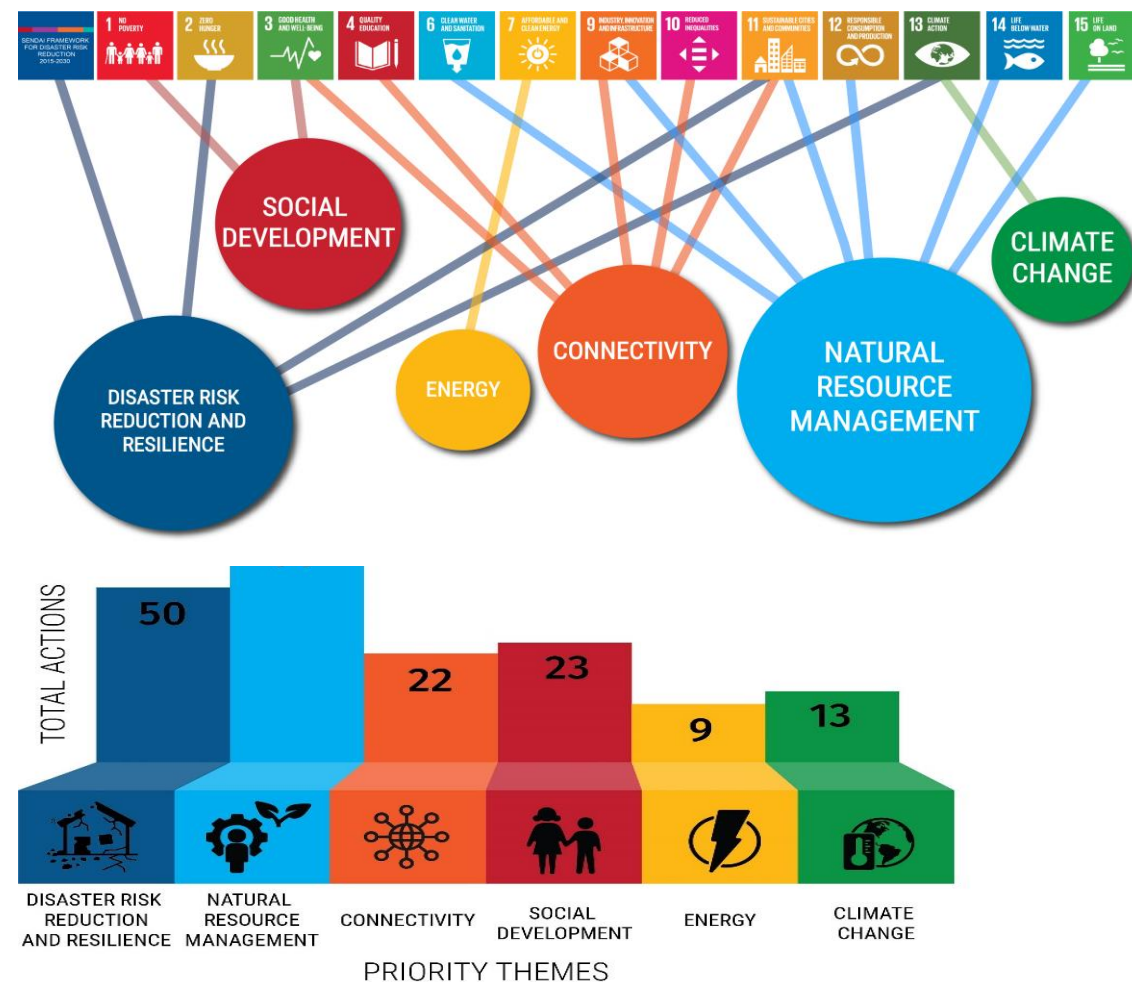
**Mr. Keran Wang**

*Chief, Space Applications Section  
ICT and Disaster Risk Reduction Division of ESCAP*

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# Asia-Pacific Plan of Action on Space Applications for Sustainable Development (2018–2030)

- Members and associate members have taken actions in (a) disaster risk reduction and resilience; (b) management of natural resources; (c) connectivity; (d) social development; (e) energy; and (f) climate change.
- 3,440 activities have been reported by member and associate members. Over 43% of activities are taken in the area of disaster risk reduction, 44% of them are on capacity building and technical support.



# Geospatial Good Practices Database and Dashboard:

Achievements reported by ESCAP Members, Associate Members, and other organizations in the Asia-Pacific region



## Geospatial Good Practices Database and Dashboard

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**ABOUT THE DATABASE AND DASHBOARD**

This showcases the good practices and experiences amongst countries and stakeholders in line with the implementation of the **Asia-Pacific Plan of Action on Space Applications for Sustainable Development (2018-2030)**.

GOOD PRACTICES

# 530

ACTIONS IMPLEMENTED

# 3440

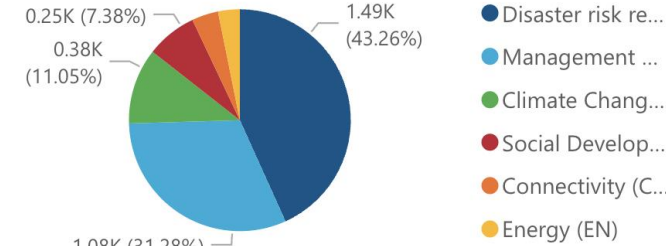
SUB-THEMES IMPLEMENTED

# 34

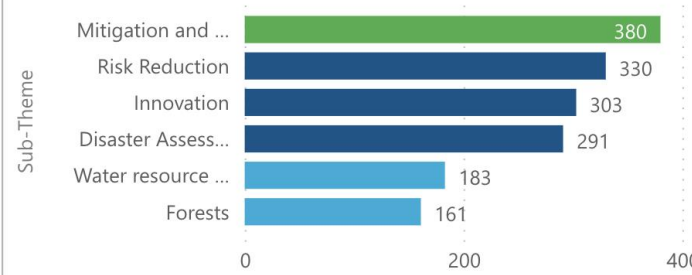
Country/Region

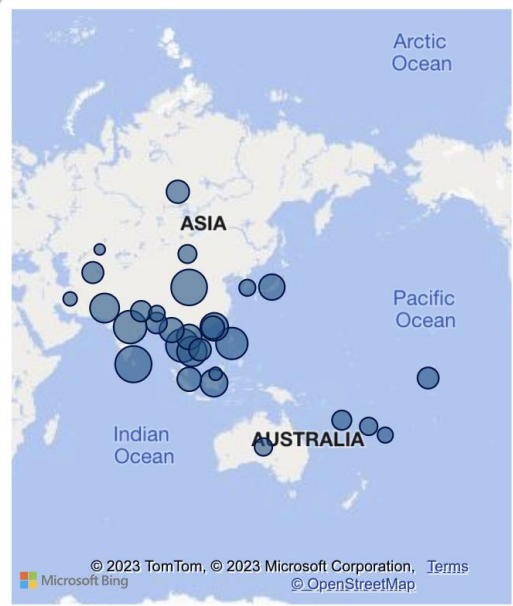
All

**Number of Actions by Thematic Area**

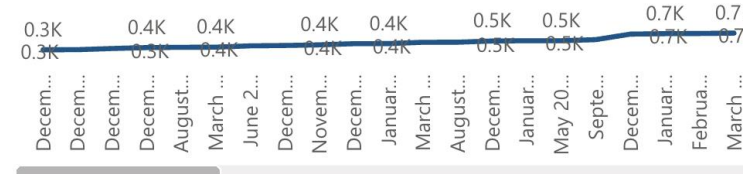


**Top Contributing Sub-Themes**

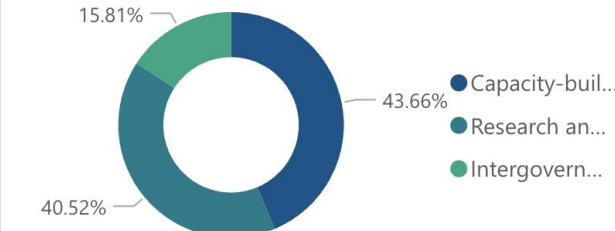




**Timeline of Action Implementation**



**Number of Actions by Action Area**



Geospatial Good Practices Dashboard Version 1.4
02/11/2023 15:53:17
Data Source: ESCAP Geospatial Good Practices Database

# Outcome of the 4<sup>th</sup> Ministerial Conference on Space Applications

## SPACE+ FOR OUR EARTH AND FUTURE



Leveraging innovative digital applications



Engaging end users in multiple sectors



Managing data and information more effectively



Enhancing partnerships



Wednesday, 26 October, 2022

# Building resilient agricultural practices by integrating geospatial information for agricultural monitoring in the Lower Mekong Basin

Objective: To strengthen the capacity of the lower Mekong countries to implement the recommendations contained in the Asia-Pacific Plan of Action on Space Application for Sustainable Development 2018-2030 particularly those related to disaster risk management, natural resource management and climate change.

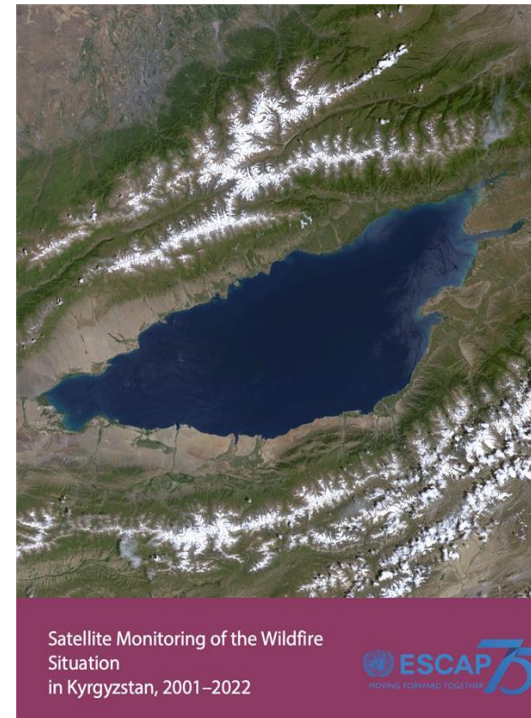
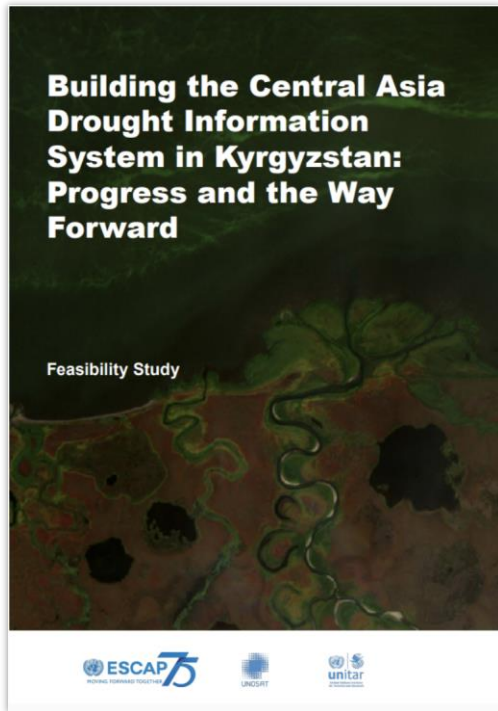
Outcome: Government officials at the national and sub- national levels use the cloud-based crop monitoring system for the effective development of climate resilient agricultural practices in rice crop production.



# Central Asia Drought Information System (CADIS) Pilot Project

Objective: To strengthen the capacity of target Central Asian countries to use satellite data and geospatial information for effective drought monitoring and early warning.

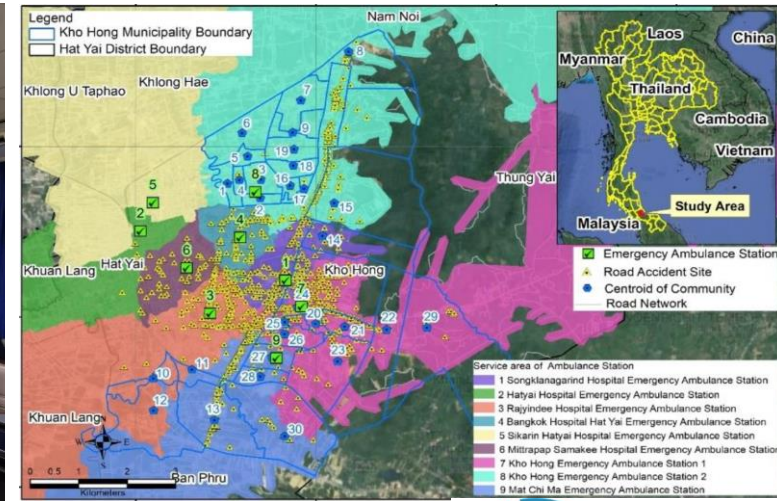
Outcome: Target Central Asian countries use the pilot drought information system for drought monitoring and early warning.



# Building institutional capacity for the use of integrated spatio-temporal data in local SDGs monitoring and decision-making

Objective: To increase the use of integrated spatio-temporal and statistical data for local SDG monitoring and decision-making.

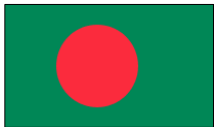
Outcome: Enhanced institutional capacity of national geospatial information applications agencies, and local governments in target countries, to utilize integrated spatio-temporal and statistical data for local SDG monitoring and decision-making



# Building the Pan-Asia Partnership for Geospatial Air Pollution information

Objective: To enhance the capacity of government agencies in target countries to strengthen national level air pollution monitoring and management.

Outcomes: Access to and utilize space applications to monitor and introduce measures to improve air quality; Enhance capacity to utilize remote sensing data for air pollution monitoring; Engage in cooperative dialogue; Support evidence-based decisions for improving national and subregional air quality.



Bangladesh  
SPARRSO



Cambodia  
MoE



Indonesia  
BRIN



Lao PDR  
MONRE



Mongolia  
IRIMHE



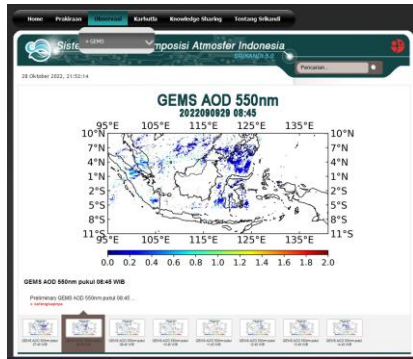
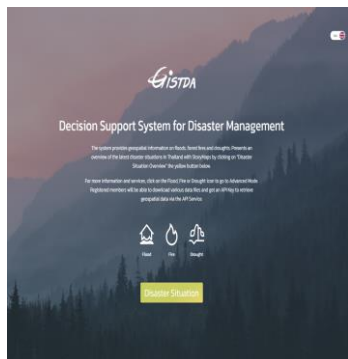
Philippines  
PhilSA



Thailand  
GISTDA



Viet Nam  
MONRE



Subject Area	#	Member States
Space	4	BG, IN, PH, TH
Envir.	4	KH, LA, MN, VT





# Virtual Satellite Constellation for Disaster Risk Management (VSC)

The **VSC** will develop a mechanism for sharing satellite imagery within Asia and the Pacific to build resilience in disaster risk hotspots

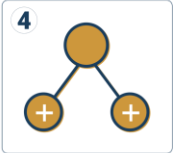


**Develop a satellite imagery sharing mechanism** for enhanced pre-disaster monitoring of risk in high disaster - low risk countries

**Improve the capacity** of local governments and disaster management-related agencies to be prepared and manage disasters over their entire cycle

**Provide inputs** to the spacefaring nations on the design of future satellites and sensors which address national and regional data needs

**1 Set up an informal working group** to work out the operational details and conduct a study to map free and commercial remote sensing data providers and share the catalogue with all member States.



**4 Match support and demand** for satellite data by the secretariat using the VSC Catalog and form a working group to facilitate data transfer.

**7 Contribute to the Asia-Pacific Plan of Action on Space Applications for Sustainable Development (2018–2030) in the areas of:**

**2 Invite spacefaring countries** to set aside a percentage of their satellite operational time or data archive for use by high disaster-risk and low-capacity countries.



**5 Provide technical assistance** to the target countries in hosting, storing, processing and analysing the satellite data.



**Disaster Risk Reduction and Resilience**



**Social Development**



**Management of Natural Resources**

**3 Invite target countries** to identify disaster risk hotspots for satellite imaging.

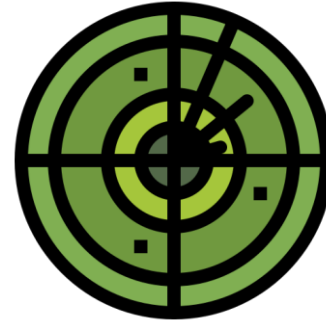


**6 Share the data requests** with all the spacefaring nations to ensure that the regional needs are addressed in future satellite and sensor design.

# Leverage the power of Large Language Models (LLMs) to develop an open-access platform to better monitor and manage disaster risks\_SatGPT



**Label images:** LLMs will be used to label images with relevant information, such as the type of disaster, the extent of the damage, and the number of people affected.



**Classify data:** LLMs will be used to classify remote sensing data, such as distinguishing between different types of disasters or different levels of damage.



**Generate reports:** LLMs will be used to generate reports that summarize the findings of remote sensing data analysis and integrate sectoral data to aid decision-making and policy formulation.

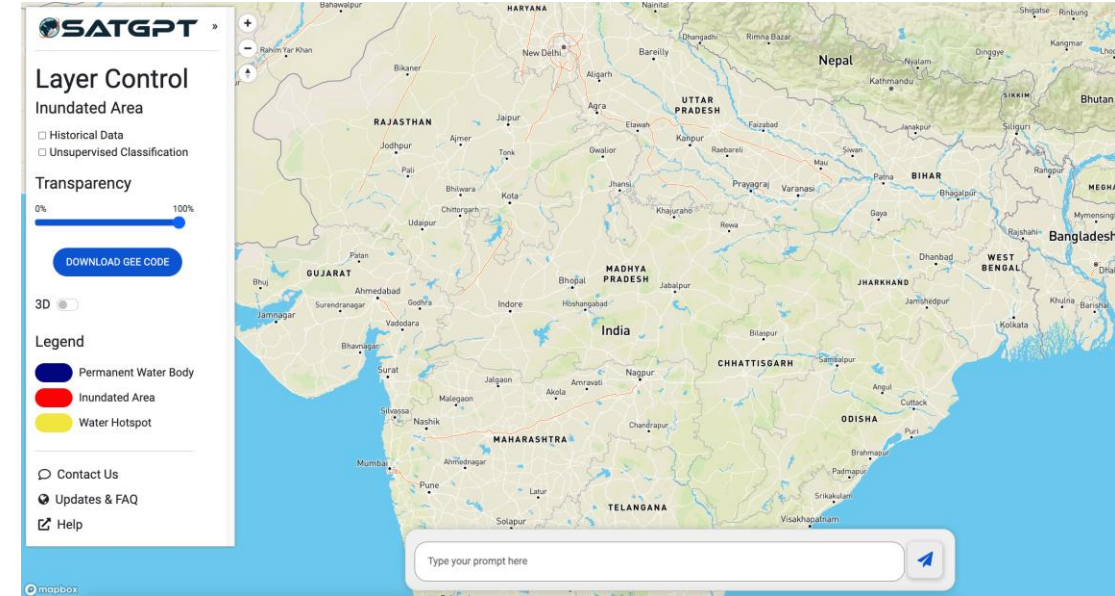


**Extract features:** LLMs will be used to extract features from remote sensing data, such as the location of a disaster, the severity of the damage, and the risk of future disasters.

# These functionalities will help generate the following information in a disaster management cycle.

- Identify and track natural hazards in real-time.
- Assess the risk of disasters.
- Warn people about impending disasters.
- Help people to prepare for and respond to disasters.
- Assess the damage caused by disasters.
- Identify the needs of affected communities.
- Prioritize resources for disaster recovery.
- Monitor the progress of recovery efforts.

# The potential users include:



- Disaster Management Agencies
- Government Departments and Ministries
- Research Institutions and Scientists
- Non-Governmental Organizations (NGOs) and Humanitarian Agencies
- International Organizations and Donor Agencies
- Public and General Users

# Massive Open Online Courses (UN-INWEH Water Learning Center wlc.un.edu)

## New Course Launch:

Introduction to  
Geospatial Data  
Analysis with  
ChatGPT and  
Google Earth Engine  
Course Start:  
18 Dec 2023



## Introduction to Geospatial Data Analysis with ChatGPT and Google Earth Engine

This online course introduces the participants to ChatGPT and Earth Engine Code Editor platform to process and interpret geospatial data.

[View Course](#)



**Course Start**  
Dec 18, 2023



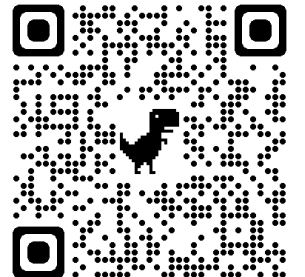
**Course End**  
Dec 31, 2024



**Duration**  
10 hours



**Certificate**  
Yes



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