

opernicus CopPhil



What is the CopPhil Initiative?

The objective of CopPhil (EU Copernicus Programme in the Philippines) is to strengthen the Philippines' capacity to tackle climate vulnerability and biodiversity conservation while improving hazard management and resilience through the use of free and open Copernicus Earth Observation data. It includes the establishment of a Copernicus Mirror Site and IT infrastructure, the co-development of Earth Observation pilot services in three thematic areas, and knowledge and skills transfer activities related to the use of Copernicus data and information.

CopPhil is managed by the **European Union Delegation to the Philippines**. It is implemented by the **European Space Agency (ESA)** in partnership with the **Philippines Space Agency (PhISA)** and the **Philippine Department of Science and Technology (DOST)**.

What is Copernicus?

Copernicus is the Earth Observation component of the European Union's Space Programme. It provides free and openly accessible information and services which draw from satellite and in situ (non-space) data. The information provided by Copernicus supports public authorities, industrial and small and medium sized enterprise (SME) service providers, and international organisations.

How does CopPhil fit into the EU Global Gateway Strategy?

CopPhil is a unique flagship programme of the European Union's Global Gateway, an EU strategy which aims to strengthen health, education, and research systems around the world through sustainable investments and partnerships. The Global Gateway is aligned with the United Nations' Agenda 2030, the Sustainable Development Goals, and the Paris Agreement.

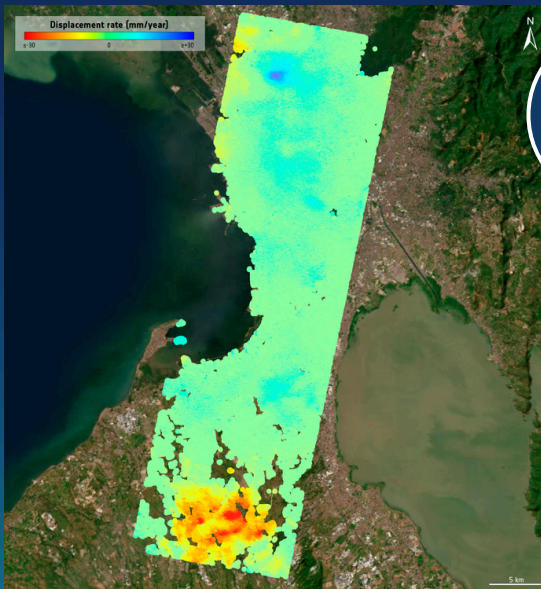
The CopPhil initiative is designed to harness digital resources and space technology for sustainable development while supporting research and business innovations, thereby aligning with the Global Gateway vision.

What are the CopPhil Pilot Services?

The CopPhil Earth Observation-based pilot services harness Copernicus data across three thematic areas. The services are co-developed with local stakeholders, who will continue to operate them after the end of the pilot demonstration phase. The service products result from stakeholder consultations focused on addressing the region's specific needs and priorities, and will be tested and validated through various practical use cases.

Ground Motion Monitoring Service

The CopPhil Ground Motion Monitoring pilot service works to complement the monitoring of ground motion activities already carried out by institutions in the Philippines by increasing the production of information layers on Earth surface deformation. The products are applied in several use cases in the **geo-hazard risk domain**, including landslides, subsidence (ground sinking or settling), seismic, urban subsidence (ground sinking in cities), and mining. This service enables the processing of long time series of Synthetic Aperture Radar acquisitions from the Copernicus Sentinel-1 mission. This supports the precise monitoring of seismic events and provides valuable information to researchers for understanding the underlying mechanisms of ground movements.



Line of Sight (LOS) velocity for an area around Manila. The data were derived from 57 Copernicus Sentinel-1 images (track 32, descending orbit) between 21 January 2020 to 29 December 2022.



 copphil.philsa.gov.ph

 CopPhil Centre

 @CopPhil Centre