Building Earth Observation (EO) Capacity in the Philippines: Lessons from CopPhil

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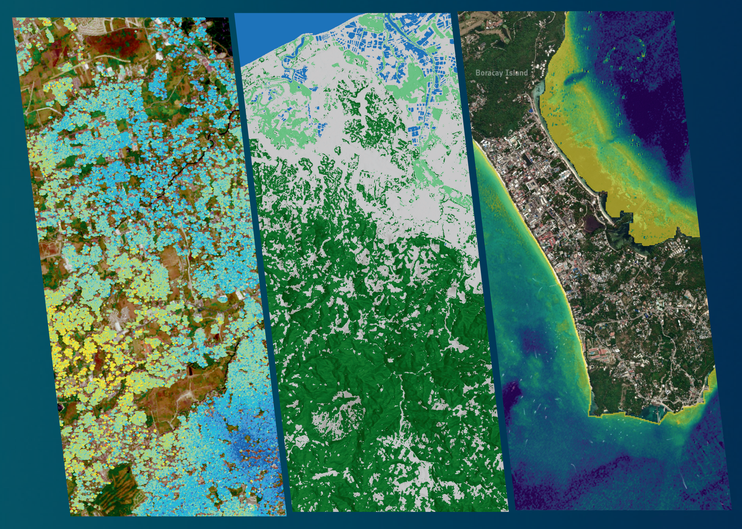
CopPhil Introduction

The **National Copernicus Capacity Support Action Programme for the Philippines** (CopPhil) is a flagship EU–ESA–PhilSA initiative under the Global Gateway Strategy, aimed at enhancing EO-based climate resilience, disaster risk reduction, and environmental management in the Philippines.

Our activities include infrastructure deployment, EO pilot services development, and a knowledge and skills transfer programme.



Ground Motion Monitoring Service | Land Cover, Forest, and Crop Monitoring Service | Benthic Habitat Monitoring Service

Highlights and Lessons Learned

11 courses currently available in the training platform: **CopPhil Digital Campus**

16 sessions held online and on-site in the Philippines (as of June 2025)

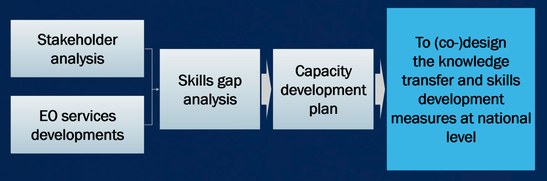
300+ participants from **67+ institutions** in the Philippines

- High overall satisfaction across all trainings!
- Co-creation ensures relevance: Needs-led design anchored in the local context
- Hands-on > lectures: Onsite and interactive sessions rated most effective
- Modularity helps progression = better uptake
- Ongoing support matters: Long-term EO training must be institutionalized (e.g., through PhilSA)

Capacity Development Strategy

CopPhil's knowledge and skills transfer strategy was based on:

- EO/GI Maturity Assessment
- Stakeholder Skill Surveys
- Co-Creation Workshop (Oct 2024)



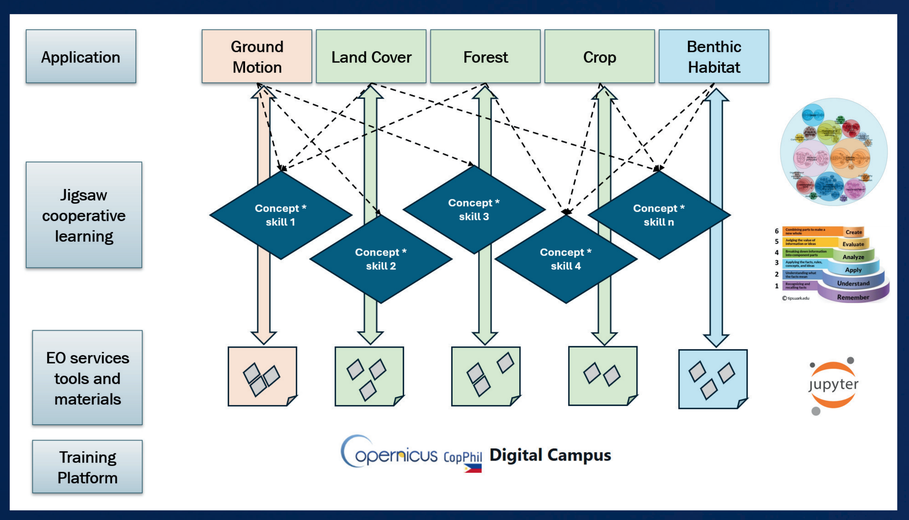
Identified gaps included:

- Limited advanced EO processing (e.g., InSAR, SDB)
- Limited programming/ML use in EO workflows
- Barriers in integrating EO into institutional decision-making
- Need for calibration/validation and big EO data management

These informed the training curriculum design based on **Bloom's Taxonomy** and **EO4GEO Body of Knowledge**.

3-stage training structure:

1. **Fundamentals** – EO principles, intro to pilot services
2. **Practicals** – walkthrough of the EO services workflows
3. **Applications** (Aug 2025) – User-driven case studies



Outlook

CopPhil offers a scalable model:

- Institutional embedding via PhilSA
- Balanced knowledge exchange (Europe ↔ Philippines)
- Clear progression from data to service to skills

Lessons applicable to other Global South countries looking to integrate Copernicus into their environmental monitoring.

References:
(EO services images) https://copphil.philsa.gov.ph/
(Bloom's Taxonomy) Using Bloom's Taxonomy to Write Effective Learning Objectives
(EO4GEO Body of Knowledge) https://bok.eo4geo.eu/GIST
(CopPhil D9): Arellano, C. M., Streifeneder, V., Steinbacher, E.-M., Dabiri, Z., & Hölbling, D. (2024). CopPhil: EO Service Development & Transfer – Capacity Development Plan.
(CopPhil D11): Arellano, C. M., Streifeneder, V., Steinbacher, E.-M., Dabiri, Z., & Hölbling, D. (2024). CopPhil: EO Service Development & Transfer – Knowledge and Capacity Building Report.

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