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United Nations Institute for Training and Research

Unitar Online Catalogue

Training on the Use of Geospatial Information Technology for Children's Climate and Disaster Risk Index (CCDRI)

United Nations Satellite Centre UNOSAT

Deadline: 30 Jan 2026

Type:	Course
Location:	Bangkok, Thailand
Date:	4 Feb 2026 to 5 Feb 2026
Duration:	2 Days
Programme Area:	Satellite Imagery and Analysis
Website:	https://unosat.org/
Price:	\$0.00
Event Focal Point Email:	khaled.mashfiq@unitar.org
Partnership:	UNICEF (520)

BACKGROUND

UNICEF and UNITAR have partnered to develop a subnational Children's Climate and Disaster Risk Index (CCDRI) for Malaysia and Timor-Leste. To support this process, a two-day workshop will convene key government focal points and UNICEF Country Office staff who will be directly involved in developing the CCDRI model. The workshop will introduce participants to the overall process,

methodology and technical elements, while fostering peer-to-peer learning and exchange. It also aims to strengthen government engagement, commitment and capacities, ensuring successful implementation and effective use of the risk model once finalized and launched.

The Children's Climate and Disaster Risk Index (CCDRI) is a tool developed by UNICEF to measure children's vulnerability to the impacts of climate change and natural hazards. The risk model, based on the inter-agency Index for Risk Management (INFORM) methodology, applies a geospatial, data-driven methodology that combines hazard exposure and child-focused vulnerability indicators at sub-national levels. Unlike general risk indices, CCDRI places children at the centre of analysis, recognizing that they are disproportionately affected during disasters due to their higher dependence, developmental needs, and limited capacity to cope with hazards. The model supports in identify geographic hotspots where children face the highest levels of risk, supporting more targeted and equitable disaster-risk planning and investment.

To ensure the Index reflects local realities, UNICEF and UNOSAT will work with national stakeholders ensure that the CCDRI framework reflects the local contexts. This includes adapting datasets, refining indicators, validating hazard layers, and developing interactive dashboards that national stakeholders can use in preparedness, planning, and policy formulation. As countries move toward adapting CCDRI to their country context, it is essential that end users and partners understand both the technical foundation of the index and the practical steps involved in calculating exposure and vulnerability. This two-day training has been designed to build that capacity.

EVENT OBJECTIVES

Through this training, participants will gain the skills needed to interpret CCDRI outputs, understand the logic behind the risk scores, and apply the model for planning, reporting, and decision-making at national and sub-national levels.

LEARNING OBJECTIVES

At the end of the course, participants should be able to:

- Define key concepts and terminology related to GIS, spatial data types, and coordinate systems.

- Describe the CCDRI framework, including exposure to hazards and child vulnerability.
- Calculate exposure indicators using provided hazard and demographic datasets.
- Calculate vulnerability indicators using social, health, education and other social sector datasets.
- Demonstrate how CCDRI outputs can support disaster risk reduction and climate adaptation planning and decision-making.

CONTENT AND STRUCTURE

The course introduces participants to the fundamentals of Geographic Information Systems (GIS) and the CCDRI, with a focus on supporting national disaster risk analysis and planning. The training begins with foundational modules on GIS concepts, spatial data types, and hands-on navigation of QGIS for basic mapping and geoprocessing tasks. Participants will learn how to load, visualise, and manipulate key datasets commonly used in risk assessments.

METHODOLOGY

This is a full-time, in-person training that combines short lectures, live demonstrations, and hands-on lab exercises using real satellite data and open-source tools. The course follows a modular structure and emphasizes applied learning, with approximately 80% of time dedicated to practical exercises and 20% to conceptual discussions. Participants will work on open-source software and engage in interactive sessions, including guided walkthroughs, small group work, and collaborative problem-solving. The course is designed to build skills incrementally, balancing theoretical foundations with real-world applications.

TARGETED AUDIENCE

The course is intended for participants nominated by government ministries and UNICEF country offices, especially those directly involved in the developing of the CCDRI model. Depending on the availability of spaces, additional participants from other countries involved in subnational risk analysis may be invited to join the training.

ADDITIONAL INFORMATION

Lab exercises will be based on QGIS software.