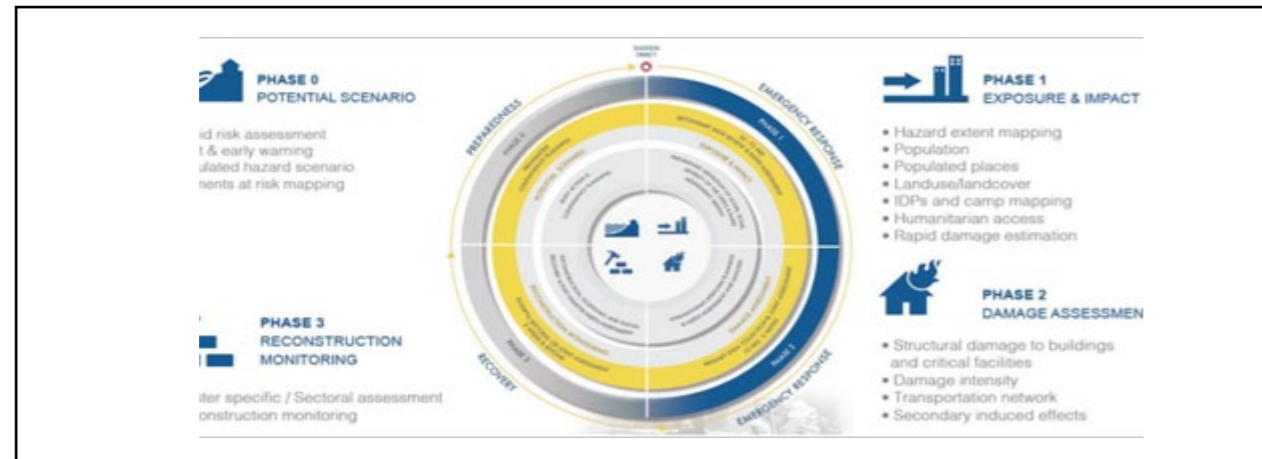


## UNOSAT Operational Satellite Mapping Service

Global targets, Priority for Action 1: Understanding Disaster Risk, Priority for Action 4: Enhancing Disaster Preparedness for Effective Response, and to “Build Back Better” in Recovery, Rehabilitation and Reconstruction



**Application field:** UNOSAT is the Operational Satellite Applications Programme of the United Institute for Training and Research (UNITAR) delivering satellite imagery analysis and related geospatial information technology solutions in support of disaster risk reduction, humanitarian operations, human security, human rights and socio-economic development.

**Methodology and workflow:** UNOSAT provides timely and relevant satellite imagery analysis to support different stages of the disaster risk management cycle:

- Preparedness/Pre-Disaster phase: Multi-Hazard Risk Assessment, Alert & Early Warning, Elements at Risk Mapping, etc.
- Emergency response 24 - 72 hours: Exposure and Impact Analysis (Hazard Extent Mapping, Population & Landuse/Landcover exposure, IDPs & Camp Mapping, Humanitarian Access, Rapid Damage Estimation)
- Emergency response 72 hours - 2 weeks: Damage Assessment (Structural damage to buildings, transportation network, critical facilities).
- Recovery phase: Imagery Analysis Support for Reconstruction Monitoring (Cluster Specific / Sectorial Assessments).

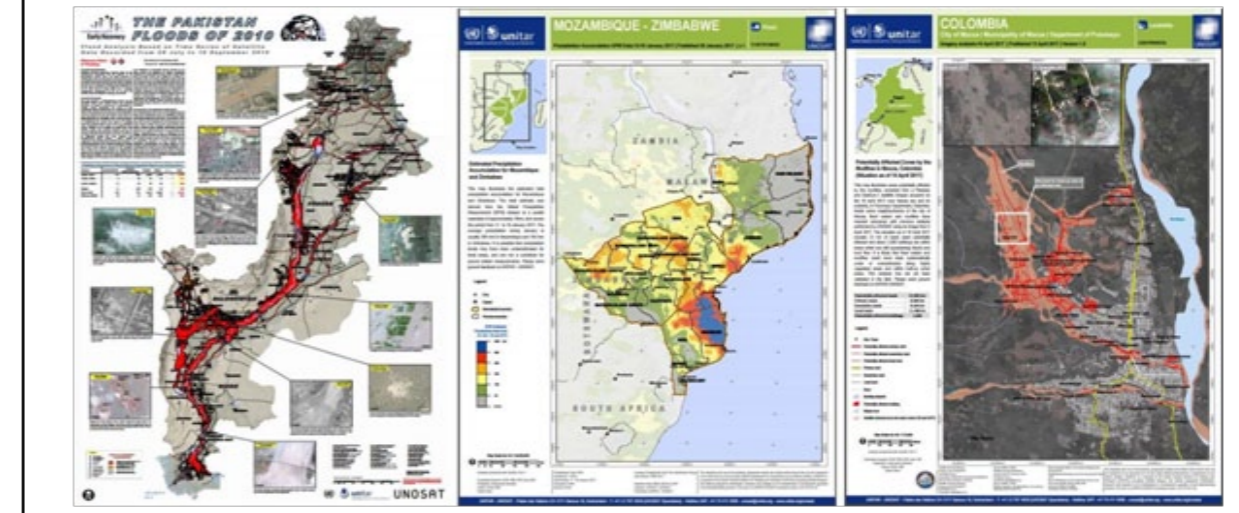
**Key results:** Since 2001, UNOSAT has supported, with satellite imagery analysis, UN Agencies and Member States for the majority of disaster events worldwide that required International Humanitarian Assistance.

**Innovative impact:** Timely satellite imagery analysis is provided to humanitarian and development actors to support operational planning and decision making with reliable and evidence-based information.

## Satellite Imagery Derived Products

Application status: Fully operational service.

Area of application: Local, Regional, National and Global Level



**Background:** Based on optical and radar images of different resolutions, UNOSAT products are also enriched with the available baseline GIS datasets and crowdsourcing data. Satellite derived analysis performed by UNOSAT is delivered in the form of GIS Data, Static Maps, Live Web Maps and Reports, and is then shared with a wide range of end-users such as: UN Agencies, International Organizations and Governments.

**Key publications:**

- Report of the Executive Director of the United Institute for Training and Research to the General Assembly (Official Records, Fifty-ninth Session N. 14 (A/59/14))
- Geo-information for Disaster Management, Peter van Oosterom, Šiyka Zlatanova, Elfriede Fendel – 2006 (ISBN 978-3-540-27468-1)
- Managing Crises and Disasters with Emerging Technologies : Murray E Jennex, Feb. P. (2016) FAO’s AVHRR-based Agricultural Stress Index System (ASIS) for global drought monitoring, International Journal of Remote Sensing, 37:2, 418-439, DOI: 10.1080/01431161.2015.1126378

<https://unitar.org/unosat/>    <http://www.unitar.org/unosat/maps>

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