

## Geospatial information for damage and loss assessment

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## Damage and Loss Assessment (DaLA)



Disaster assessment  
begins with a spatial  
definition of the affected  
area (and temporal for  
creeping disasters)



## Damage and Loss Assessment (DaLA)

- The DaLA methodology measures in monetary terms the impact of disasters on the society, economy and environment of the affected country or region
- The assessment should cover the entire area affected by the disaster and broken down by geo-political divisions

## Damage and Loss Assessment (DaLA)

All socio-economic sectors that may have sustained disaster effects are covered

Sectors	Sub-sectors
Infrastructure	Transport
	Energy
	Water Supply and Sanitation
	Telecommunications
Productive	Agriculture, Livestock and Fishery
	Industry
	Trade
	Tourism
Social	Housing
	Health
	Education
	Cultural heritage
Cross-Cutting	Environment
	Disaster Risk Reduction and Climate Change Adaptation
	Gender
Macro-Economy	Macro-Economic Assessment

## Damage and Loss Assessment (DaLA)

### Definition of Disaster Effects

#### Immediate Effects

##### DAMAGE

- Destruction of physical assets
- Occur at time of natural event
- Measured in physical units and at replacement value

#### Medium Term Effects

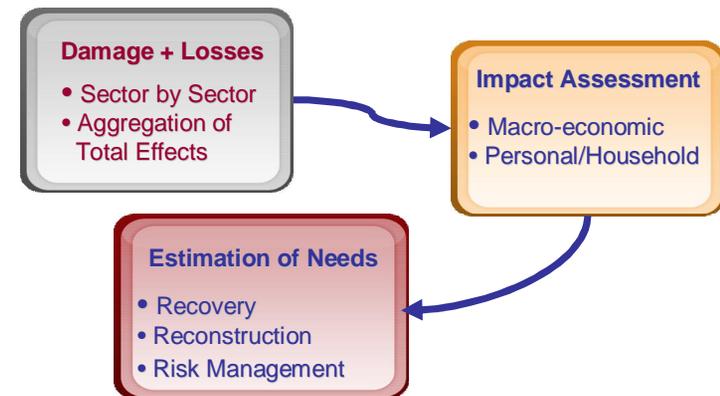
##### LOSSES

- Changes in economic flows
- Occur for a relative long time period
- Expressed in current values

**Total Effects: Damage + Losses**

## Damage and Loss Assessment (DaLA)

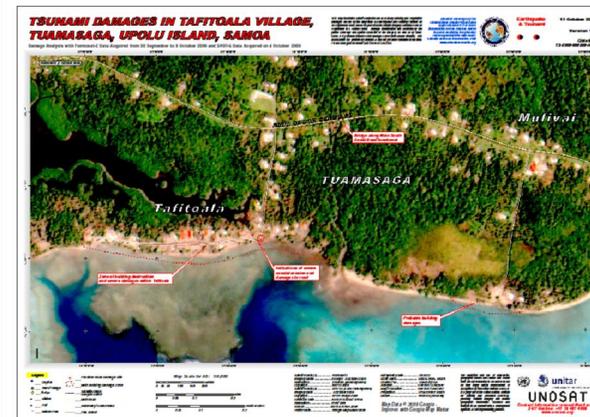
### Assessment Process



## Sources of information

- Initial desk assessment based on a variety of information sources, communication with officials, press articles, etc.
- Maps are essential and must be obtained at the onset of the assessment
- Reconnaissance field surveys
- Reports of rapid needs assessment/appraisal surveys
- Publications, documents and reports containing baseline information
- Remote sensing data as important sources for pre-disaster baseline and post-disaster information
- GIS to overlay, integrate and analyze information gathered by different sectors

## Remote sensing for preliminary damage assessment



UNOSAT released an atlas of damages caused by the earthquake and tsunami of 29 Sept 2009 in Samoa, highlighting likely damage sites identified from satellite imagery collected from 30 Sept to 4 Oct 2009

