



MONITOR II: CSA

Overview

The primary goal of **CSA (Continuous Situation Awareness)** is to improve situation awareness and knowledge about those situations, which are relevant for disaster management. This goal has to be achieved for different stakeholders in different phases of the disaster management cycle. The main operational goal is thus to identify and assess situations, according to pre-defined types of situations and rules.

Information fusion

- Integrate a (large) number of information from different sources
- Evaluate these in different levels of detail
- Identify and assess situations

CSA – problems

Information access

- Isolated information systems
- Too many information sources
- Relevant information is heterogeneous and not linked

Knowledge exchange

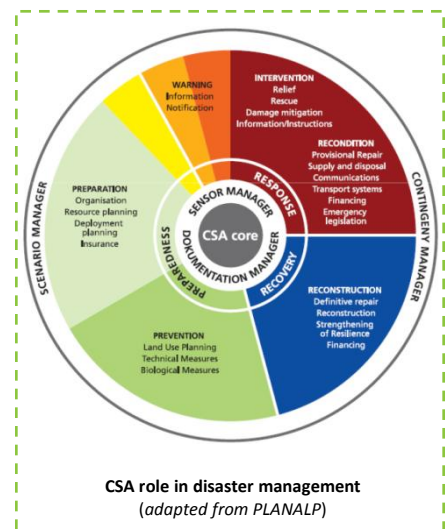
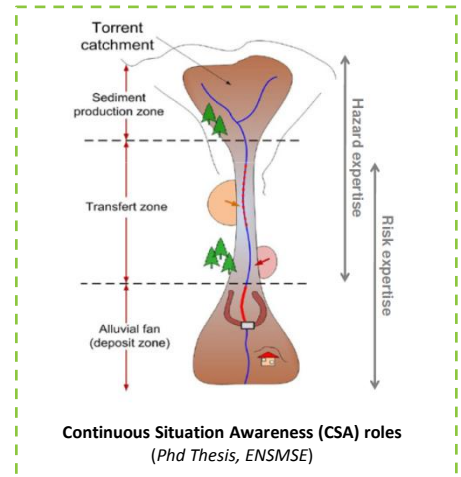
- No common knowledge about scenarios
- Hazard scenarios are not known to contingency planners and risk managers in sufficient detail
- Scenarios are not defined in a formalised / communicable way in hazard maps

Contingency planning

- Guidelines and standards missing
- Update procedures and dynamisation missing
- Tools missing

Integrate information islands – problem:

Sensors are often setup as isolated, not integrated projects for single purpose hazard processes





MONITOR II: Test bed Arlberg

Objectives and Outputs

Relevance of test bed

- Highway S16 (E60)
- Arlbergbahn railway
- Access to important touristic centres
- Energy supply: 380 kV high voltage

Data availability

- Meteorological and hydrological data
- Weather radar data
- Data on land cover, orthophotos etc.
- Geological and hazard maps
- Laser scans



Hazard mapping Klosters (Alfenz) – Municipality Dalaas with station and railroad
(Test-bed Arlberg by N. Wergles & I. Schnetzler)

Main objectives of the test bed analysis

The main goal in MONITOR II is to improve the information provision in all phases of disaster management in the test-bed and consequently in all regions susceptible to natural hazards.

- Identification of information needs and requirements for various stakeholders
- Improve communication between hazard experts, decision makers and civil protection services before and during a disaster
- Develop a platform which is able to integrate and merge data from different sources: monitoring data, geographical data, meteorological data, data from simulations, historical data etc.
- Define technical specifications to develop the platform
- Improve prevention and decision-making in disaster management



Hazard map Tirol (Stanzertal (Rosanna) / section Pettneu to St. Anton am Arlberg)
(Test-bed Arlberg by N. Wergles & I. Schnetzler)



Settlement grid (125 m grid) - Stanzertal (Rosanna) / section Pettneu to St. Anton am Arlberg
(Test-bed Arlberg by N. Wergles & I. Schnetzler)

Planned Activities / Outputs

- Data procurement and definition
- Data and risk-communication
- Data interface and scenario-modeling