

# Managing Hazards and Vulnerability to Mitigate the Risks of Extreme Events using GIS and EO

# Bridging the gap with EO

- The lack of capacity related to water - human, usable water supply - financial, institutional, technological, and service provisioning – is a major hurdle towards achieving water security. (Water Security & the Global Water Agenda, UN University, 2013)
- Many benefits may be gained by promoting and facilitating use of the best available technologies and management systems in water provision, productivity and efficiency, and by improving water allocation mechanisms. (The United Nations World Water Development Report 2015)

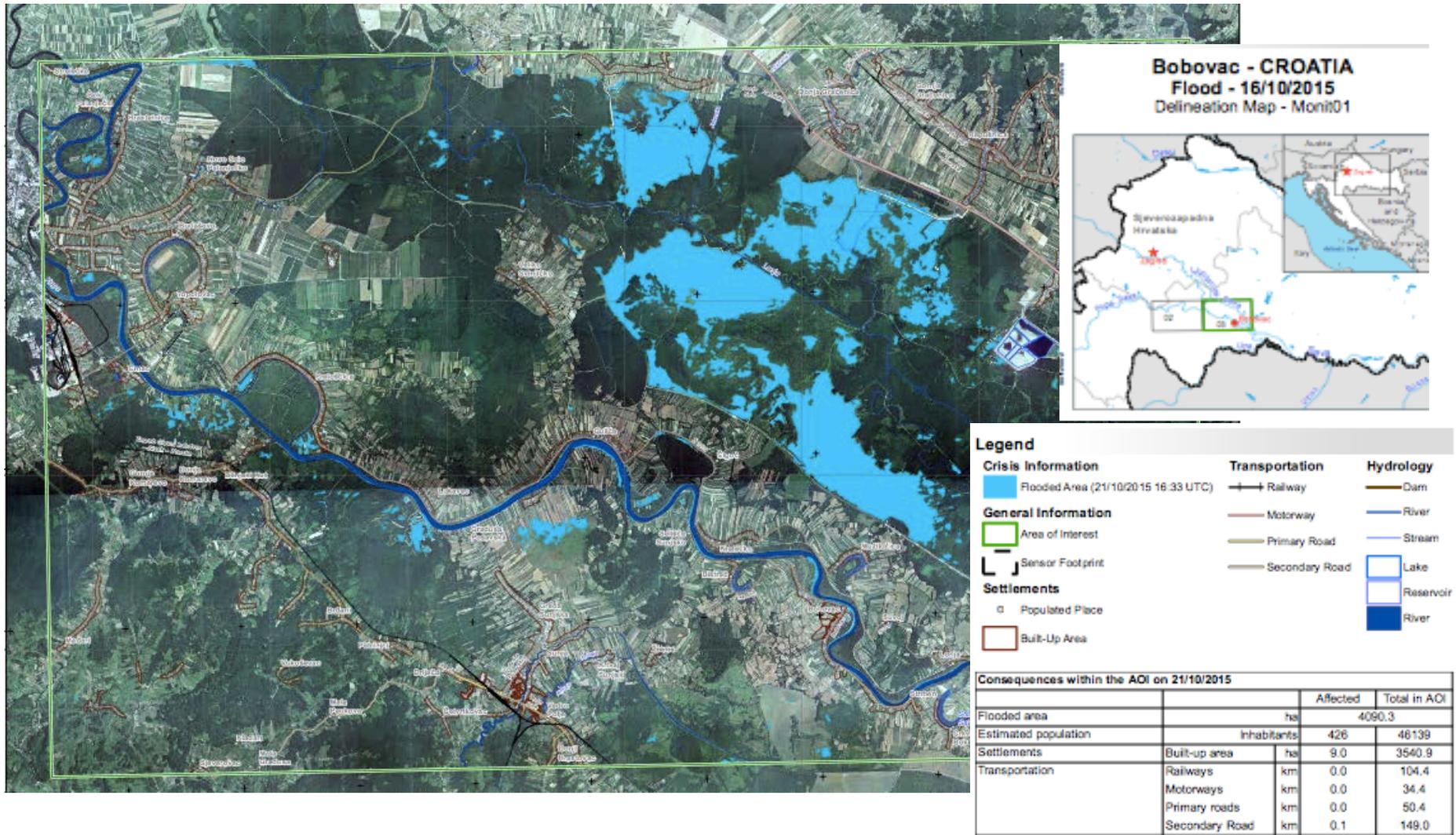
## EU partnership

- Frameworks for water security partnership and research in the areas of both earth observation and water security.
- Over a decade the EU supports water security through a series of global, regional and sectoral initiatives and instruments and motivate partners to focus on water and sanitation as priority areas.
- Within the Europe, the European Flood Awareness System (EFAS) is developed as a part of the Copernicus emergency management service to produce European overviews on ongoing and forecasted floods up to 10 days in advance.
- By promoting the principle of data sharing the Group on Earth Observations (GEO, GEOSS) could also foster the partnership and promote of using EO in water-related disasters.

## Some examples of application of EO and GIS: floods

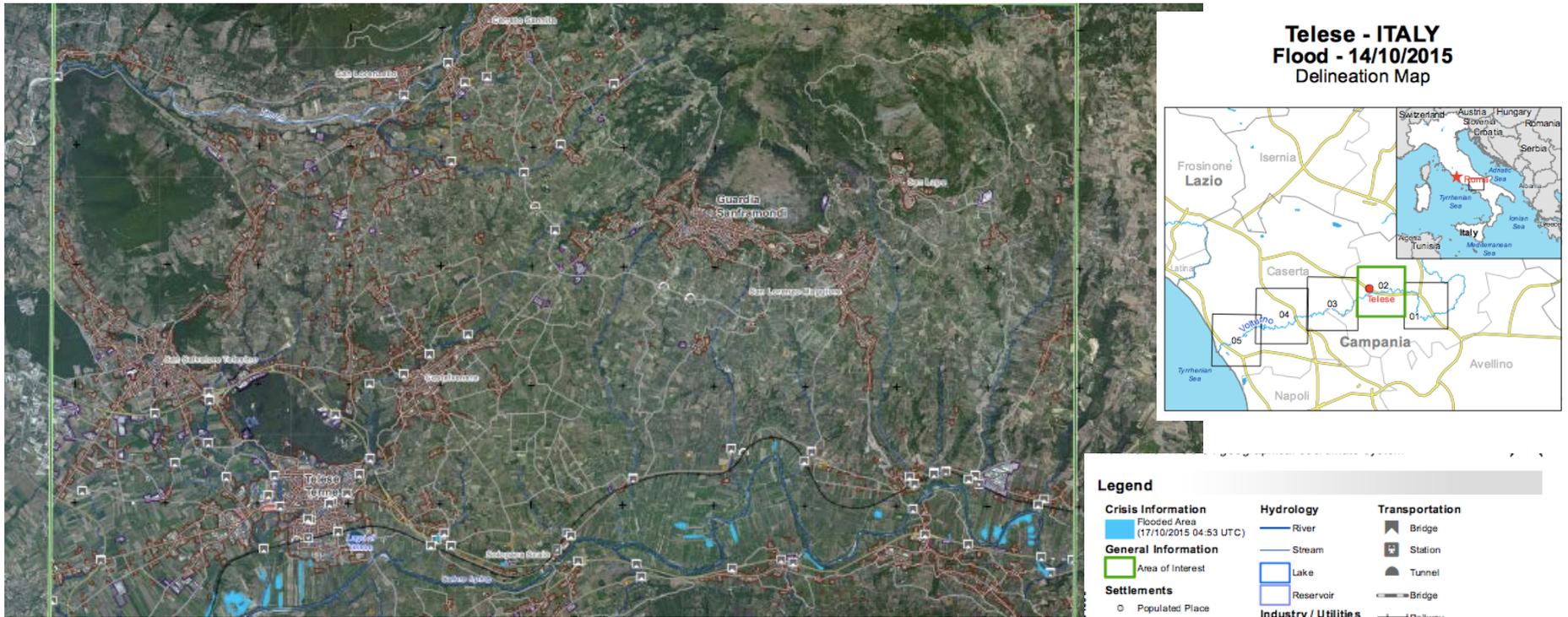
- Near real-time monitoring,
- Early warning systems,
- Risk assessment,
- Hazard and vulnerability assessment,
- Prediction,
- Damage assessment,
- Providing data for decision making.

Example, Croatia – using EO to monitor flood in near-real time, flood extent  
Source: Copernicus Emergency Management System, EMS – Mapping, EU



# Example, Italy – using EO to monitor flood in near-real time, flood extent

Source: Copernicus Emergency Management System, EMS – Mapping, EU



预览已结束，完整报告链接和二维码如下：

[https://www.yunbaogao.cn/report/index/report?reportId=5\\_3810](https://www.yunbaogao.cn/report/index/report?reportId=5_3810)

