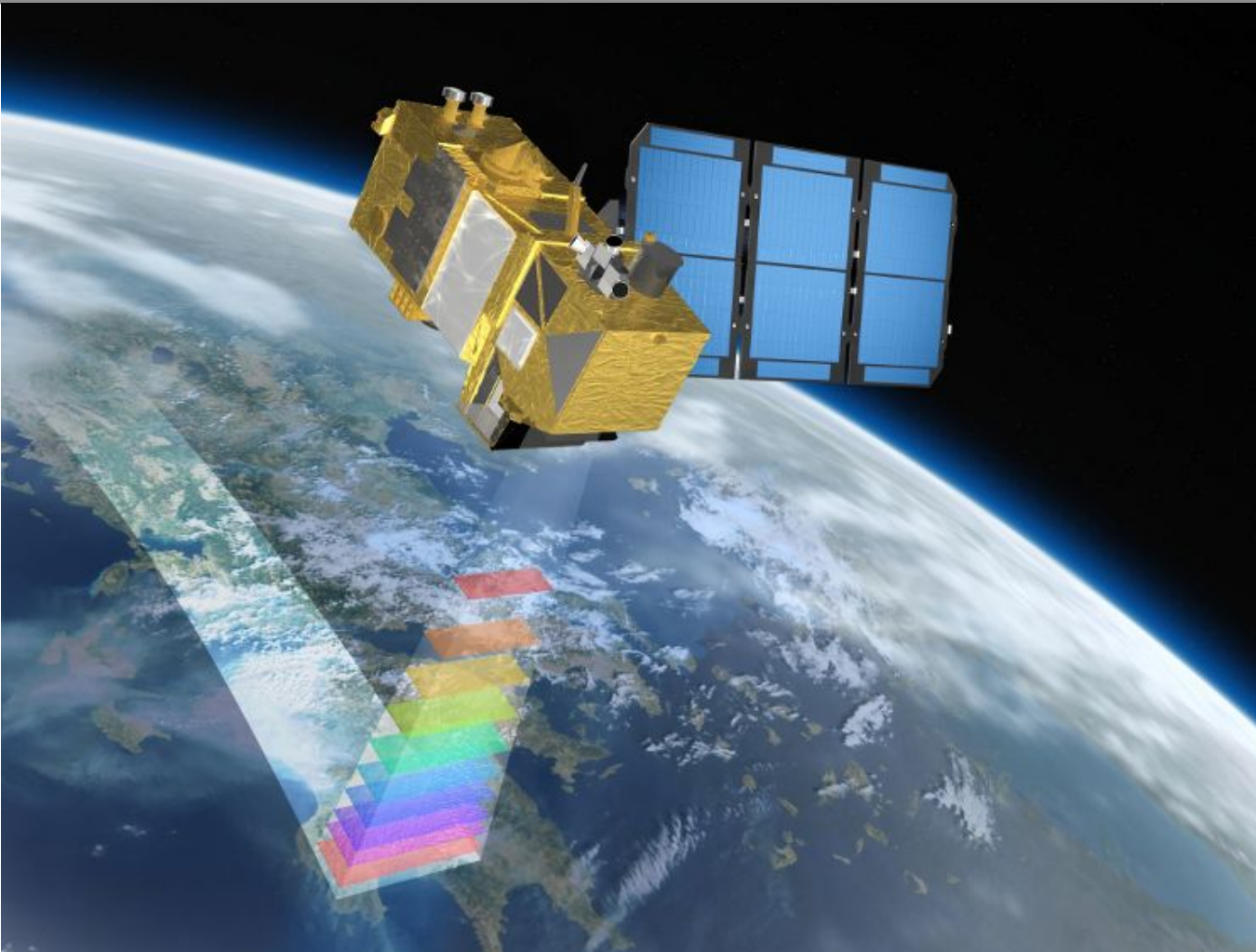


Earth Observation Support to WAVES Philippines Program



Torsten Bondo,
torsten.bondo@esa.int
Industry section
European Space Agency

ESA is an intergovernmental organisation with 20 Member States

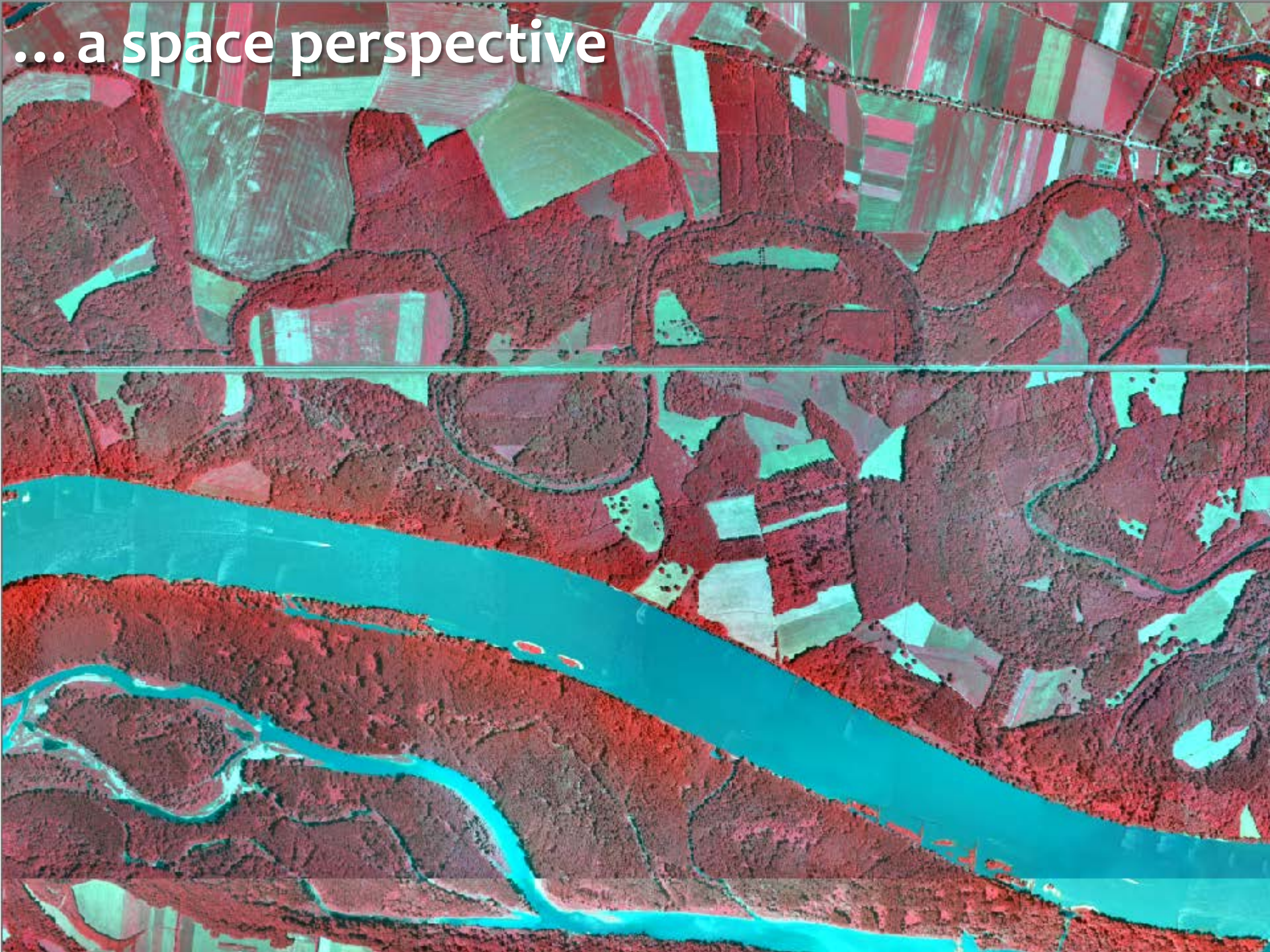
ESA purpose: “...provide for and to promote,
for exclusively peaceful purposes,
cooperation among European States in
*space research and technology and their
space applications*”

Article II of the ESA convention

ESA achieves this through:

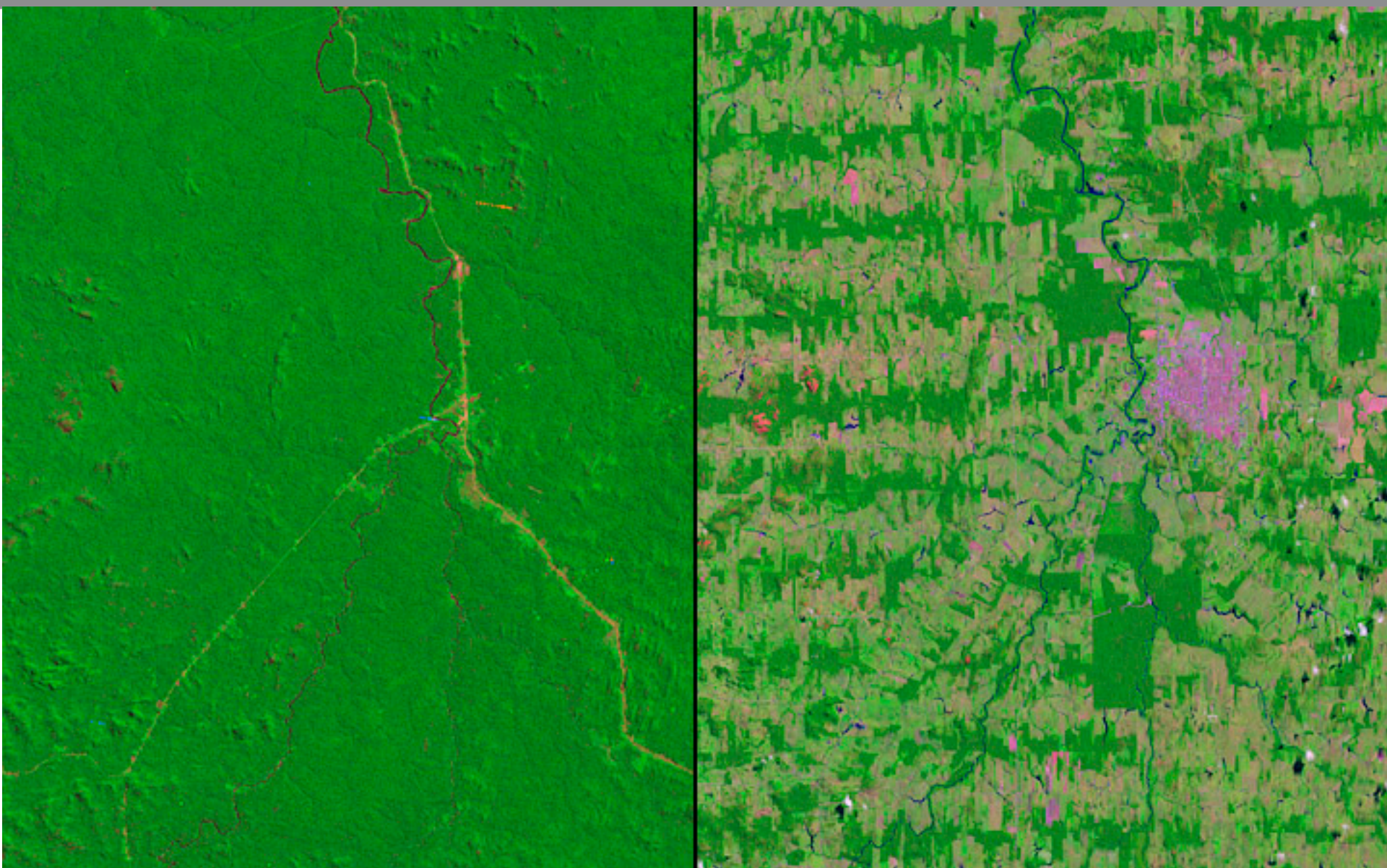
- Space activities and programmes
- Implementing a long term space policy
- A specific industrial policy



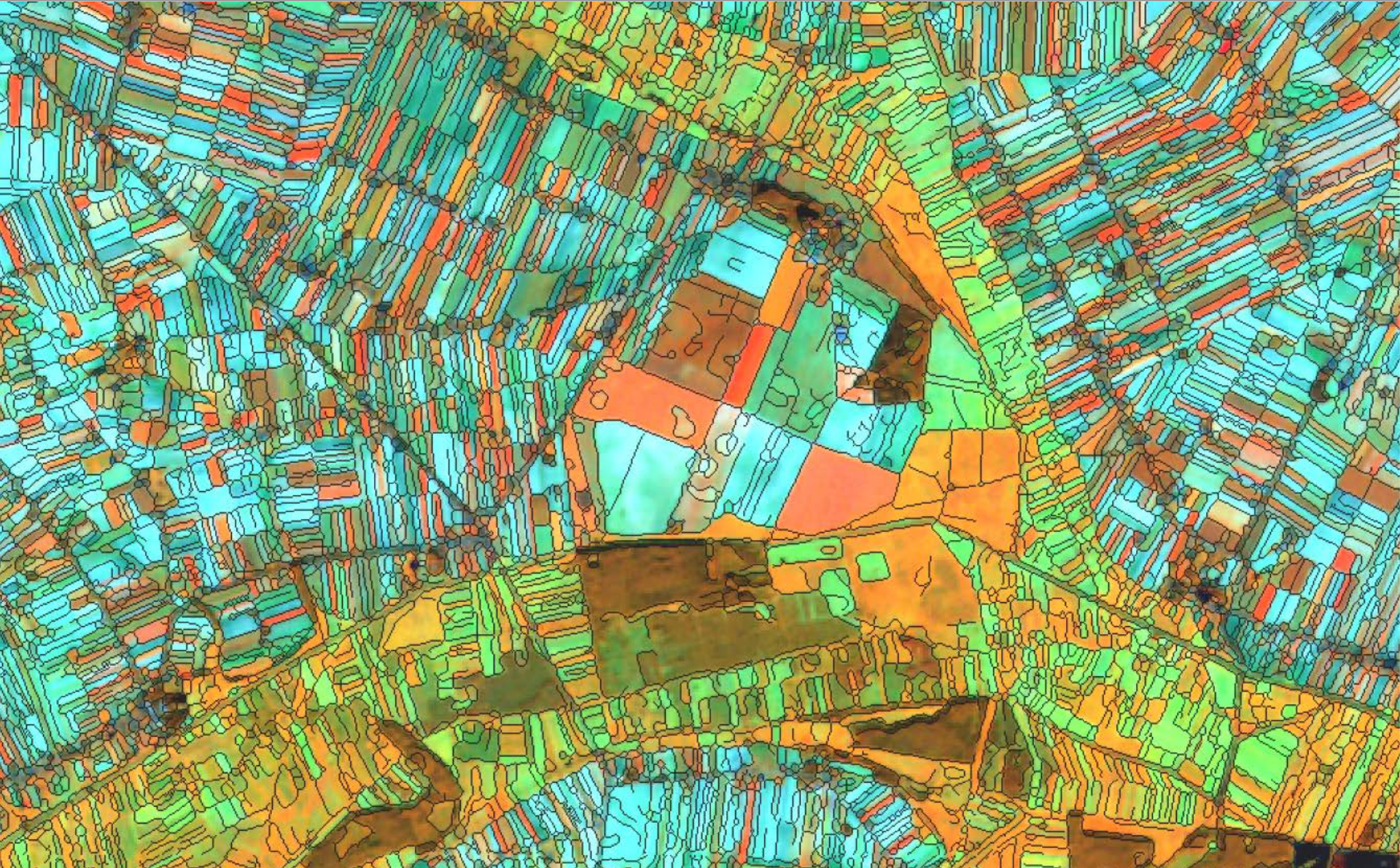


... a space perspective

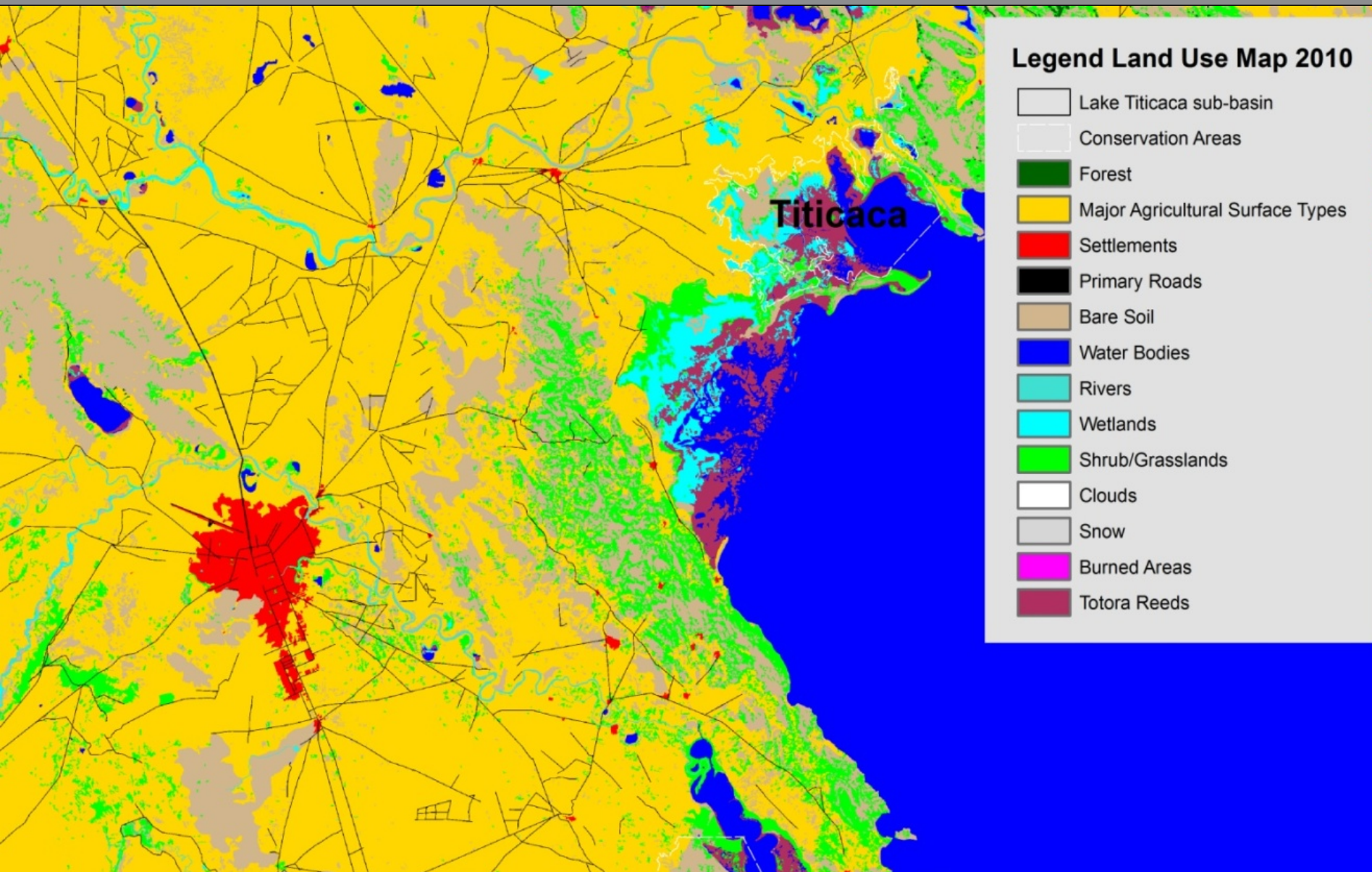
To which problems is EO relevant ?



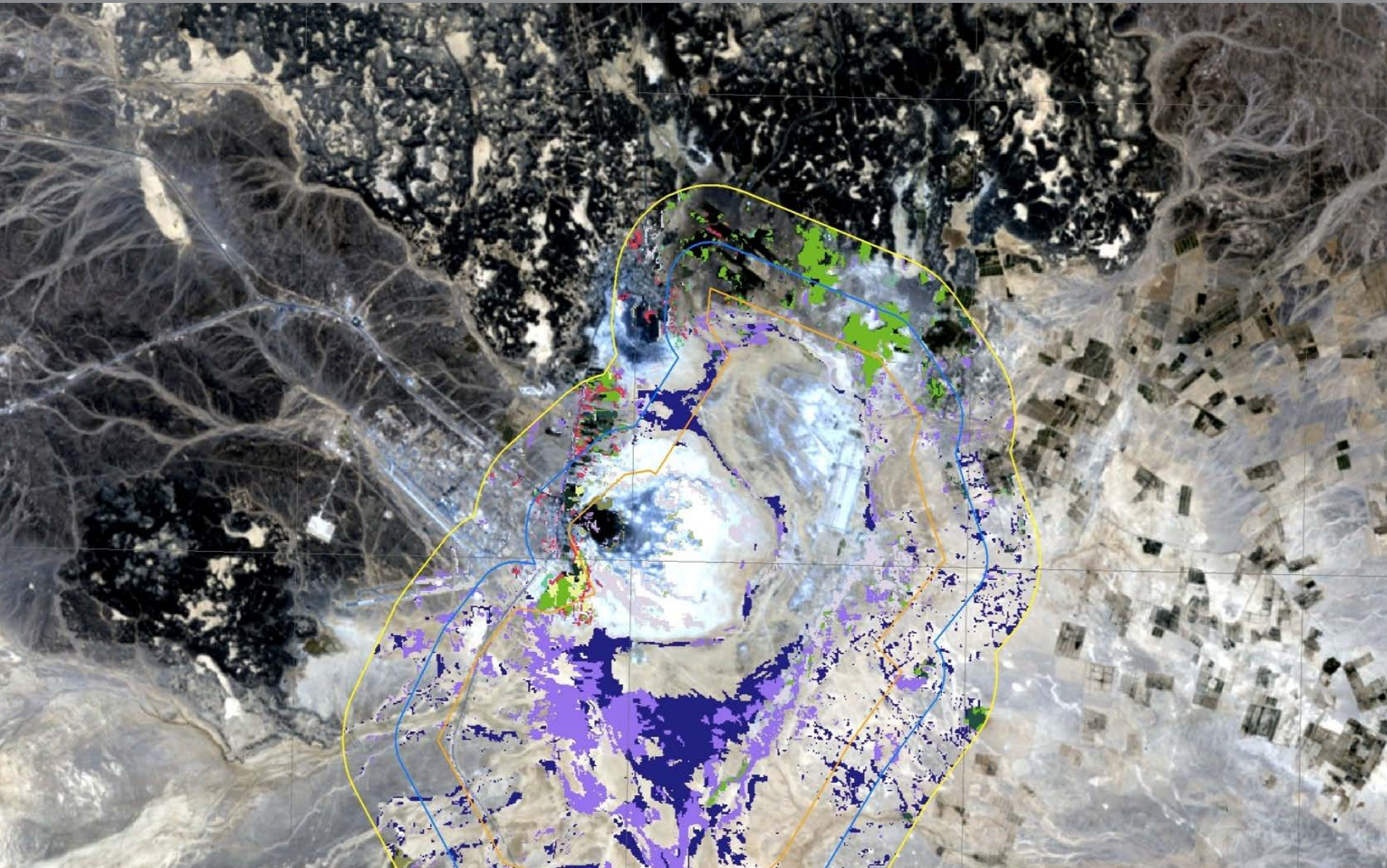
To which problems is EO relevant ?



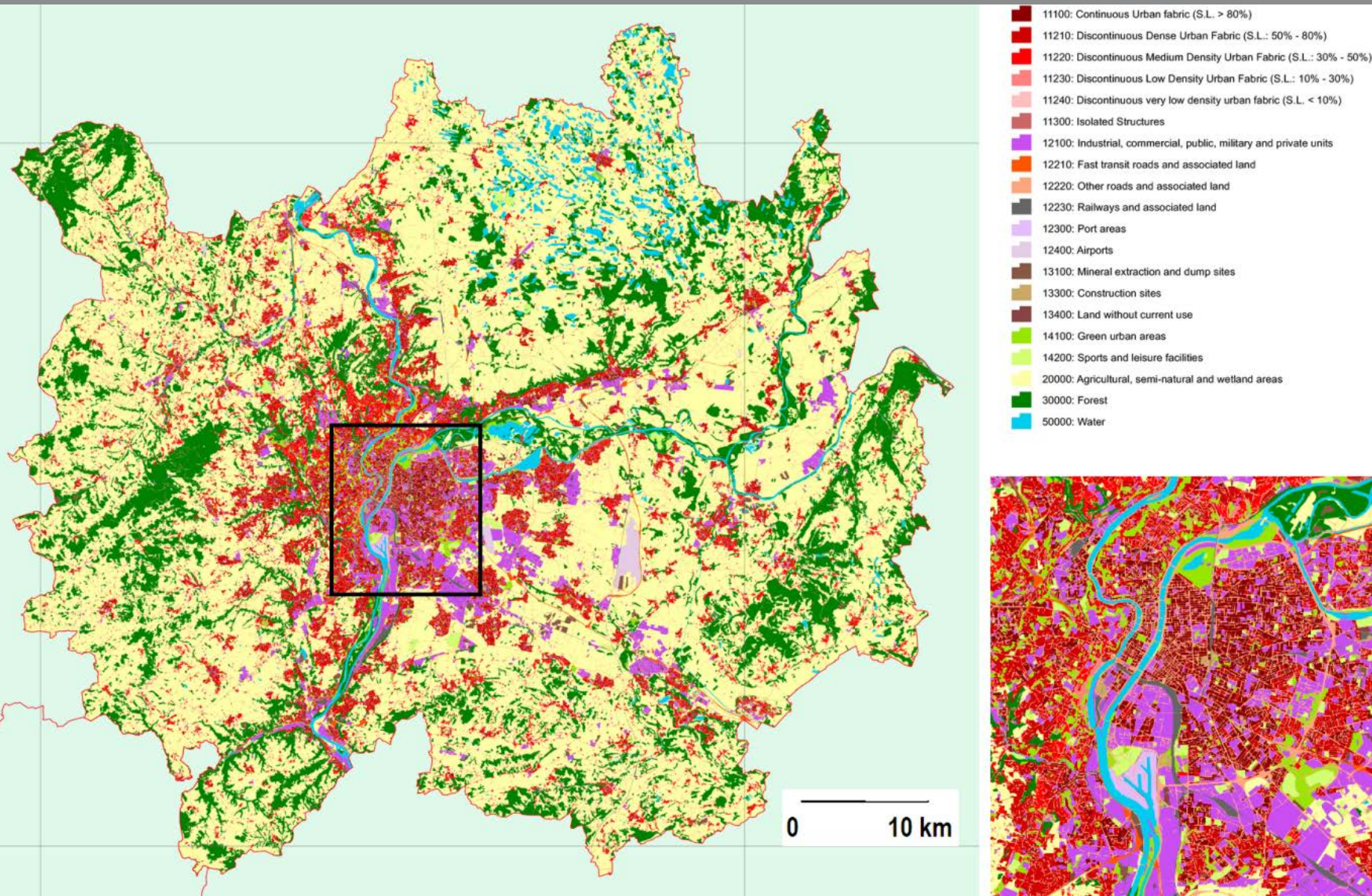
To which problems is EO relevant ?



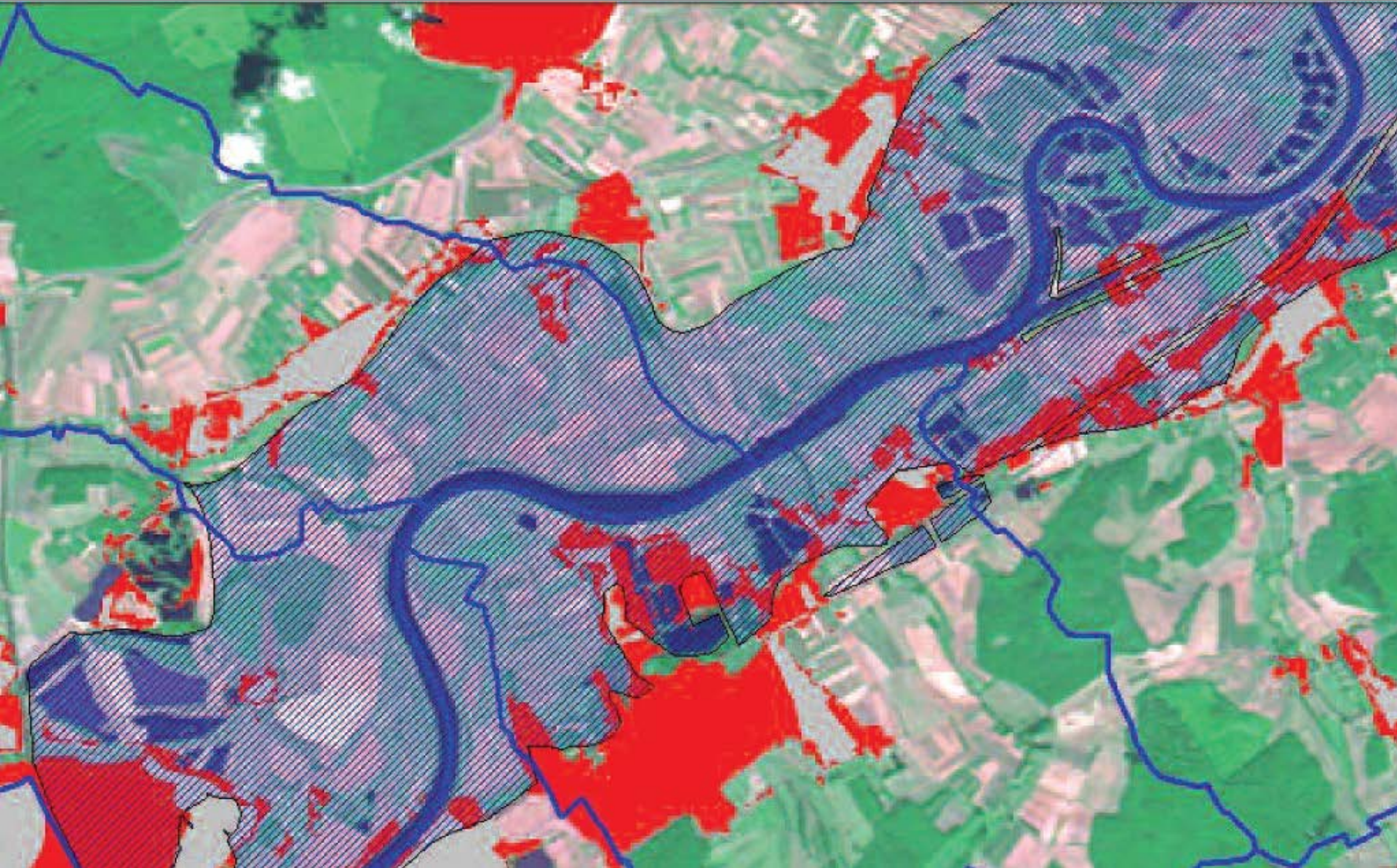
To which problems is EO relevant ?



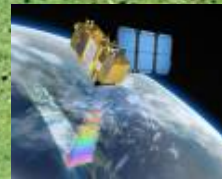
To which problems is EO relevant ?



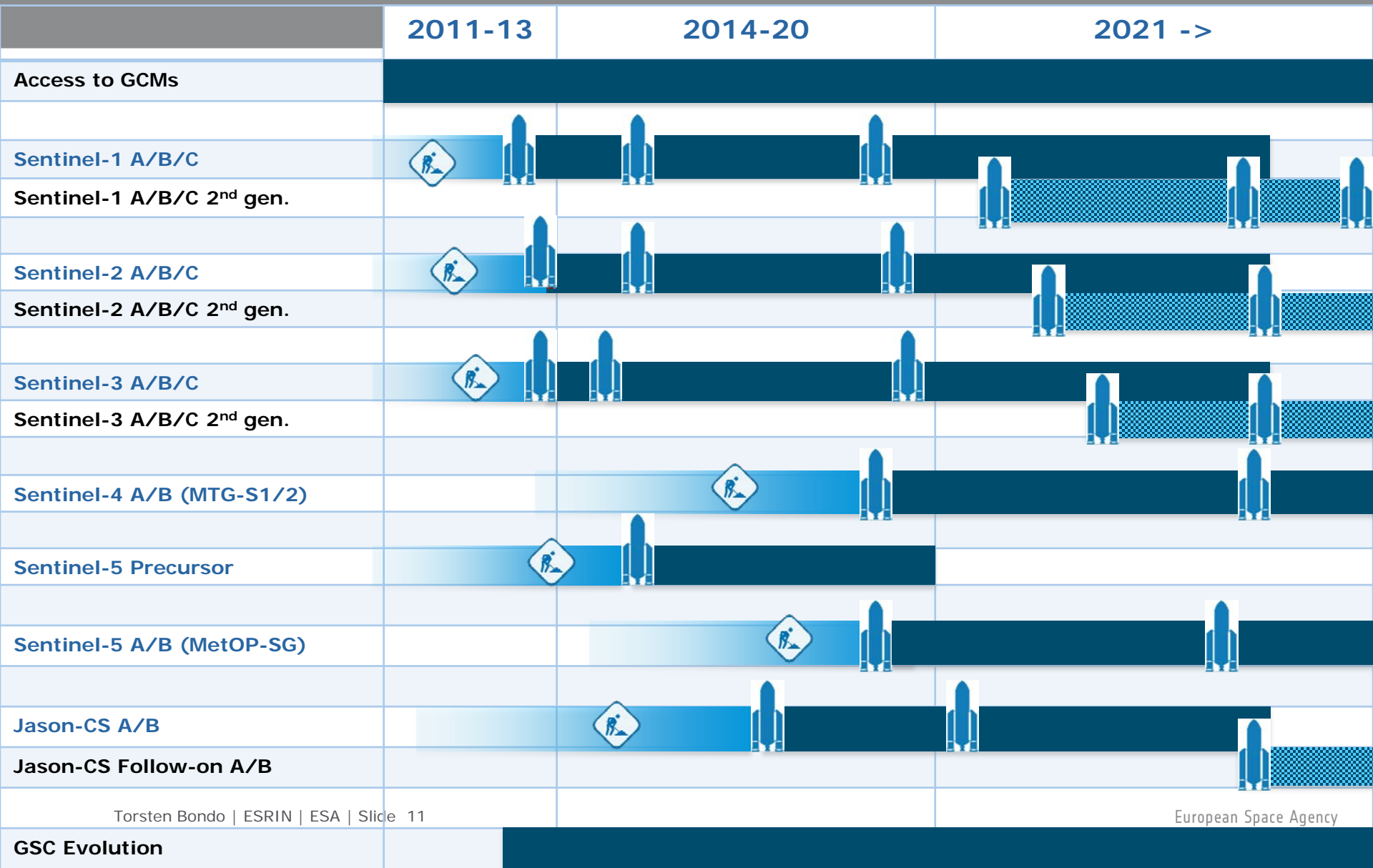
To which problems is EO relevant ?



ESA Sentinels



Users need long term perspectives



Why Ecosystems?

Objective

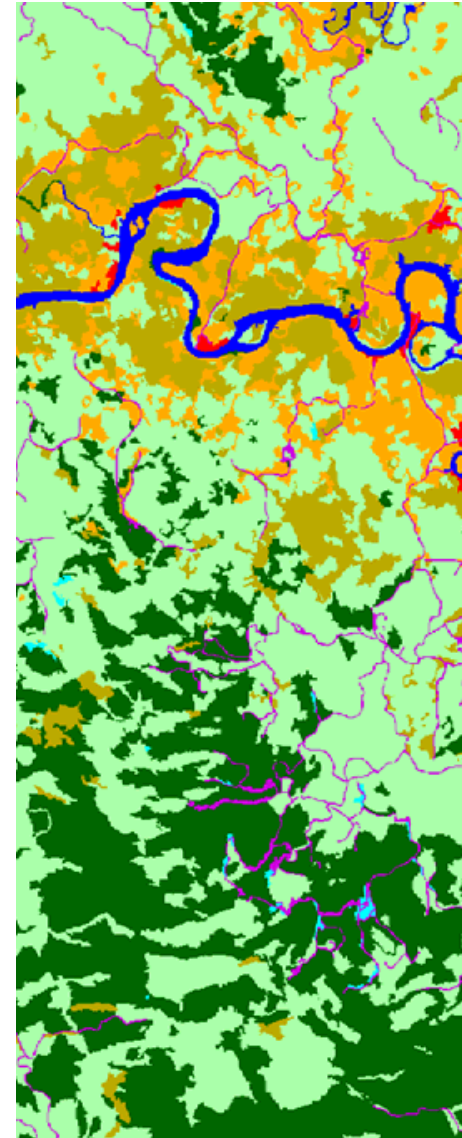
- Valuation of ecosystem services -> promote economic sustainable development

Why EO?

- Valuation -> objective assessment and monitoring tools.
- EO independent, validated and unbiased information
- Earth Observation has previously been used in PES schemes, FSC certification, wetlands management, EIA, forestry

Aims :

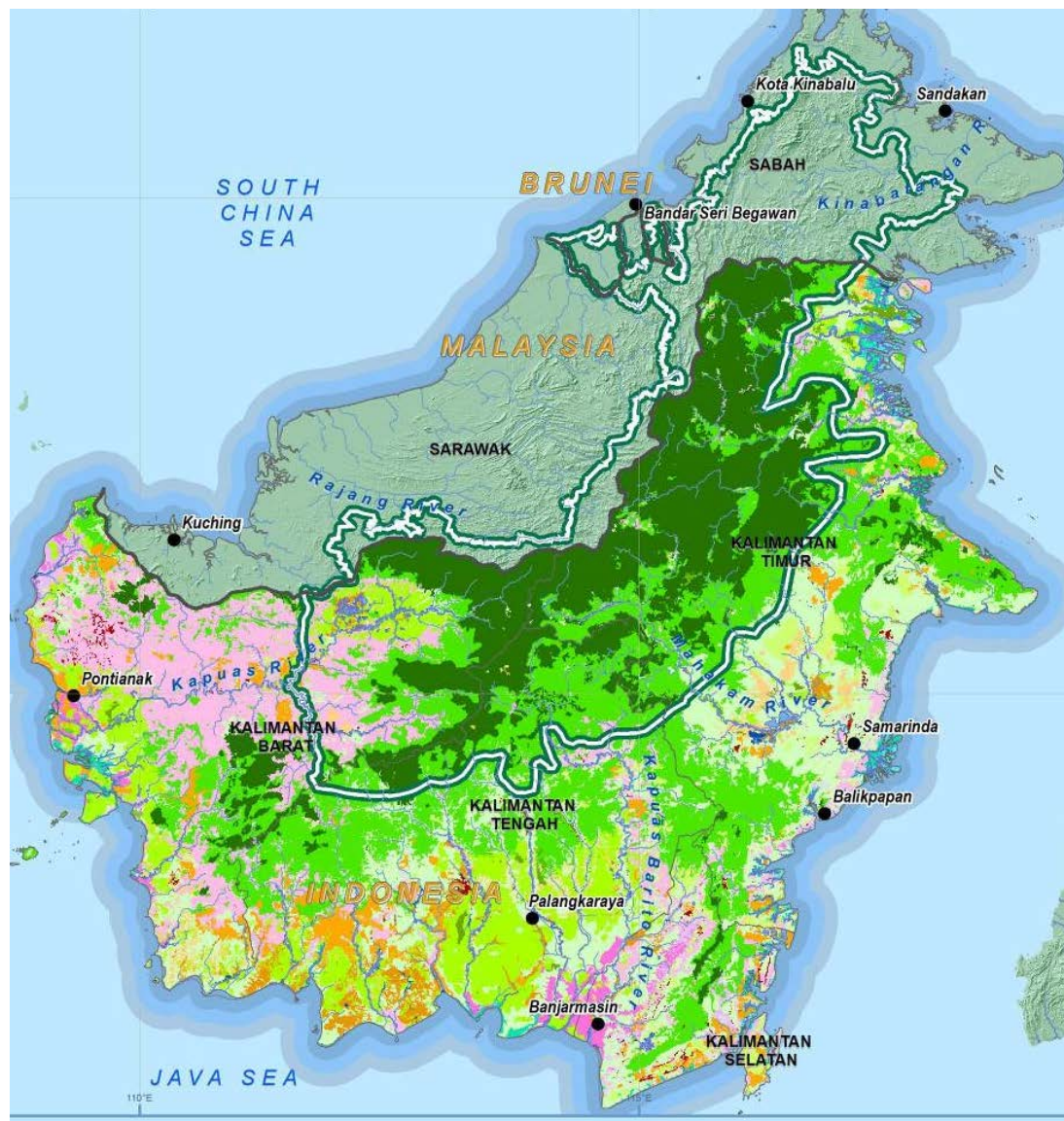
- Engage stakeholders in new ways of assessing ES
- Develop new modeling tools to facilitate ES assessment
- ..and more



ESA Activities in Ecosystems



- Heart of Borneo
- Globwetland 1 and 2
- Diversity 1 and 2
- REDD+ demonstration trials
- Ecosystems Valuation
- Ecosystems Market Study and much more.....



Workshops

- London/Washington DC
- Panel discussions
- Working Groups
- Thematic Areas:
 - EO for PES
 - EO for Impact Assessments
 - EO for Production Management
 - EO for Public Policy and ES management

Summary: EO for Public Policy and ES management

Valuation of natural capital include 'invisible' services such as air and water filtration, flood protection, carbon storage, pollination for crops, habitats as well as basic land use mapping....

Use: National accounts/ Natural wealth accounting, in particular for ecosystem condition, capacity, and supply of services.

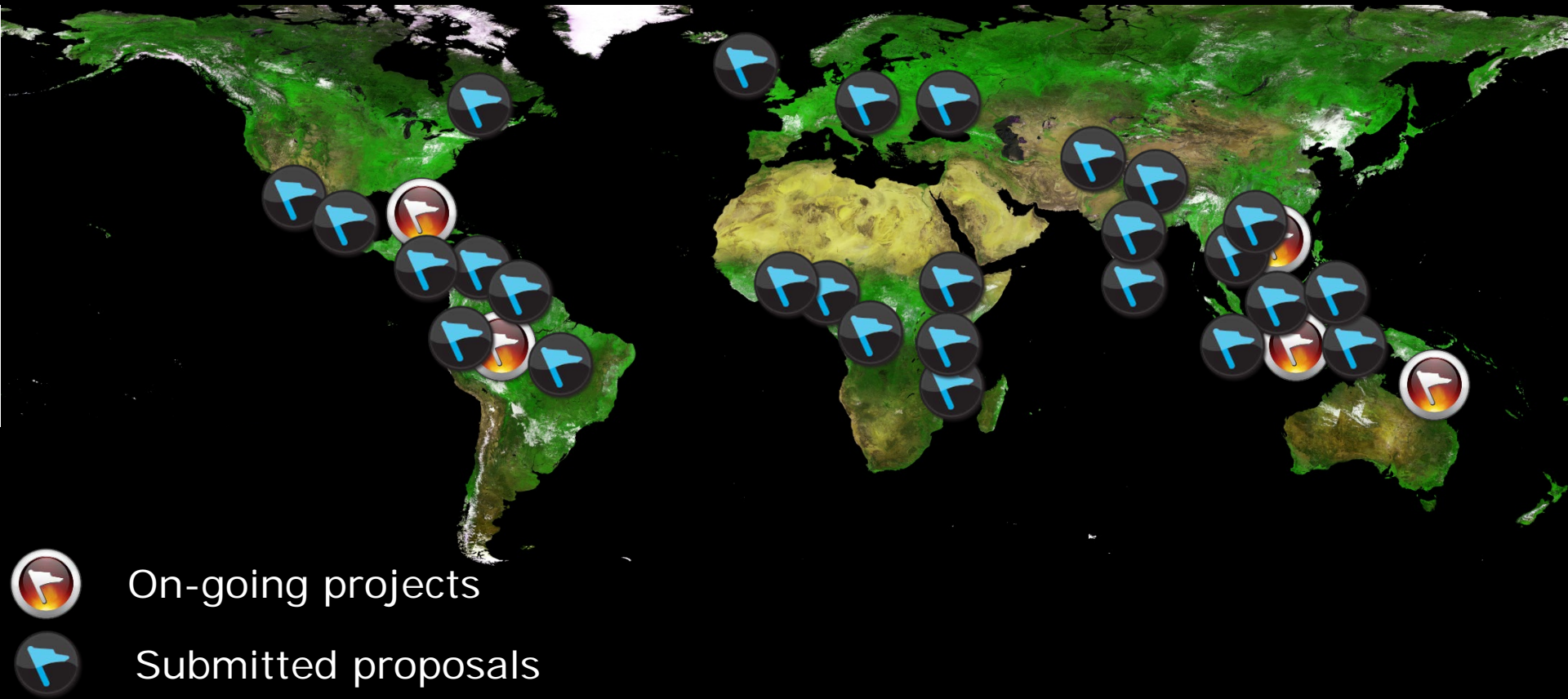
This requires integration of information derived from remote sensing into the accounting frameworks such as the UN System of Environmental-Economic Accounting (SEEA).

The demonstration studies



- Stakeholders were invited to submit demonstration study proposals
- Selection Criteria: Portfolio balance across market segments and ecosystems (land, marine, coastal), Geographic distribution, Technical feasibility, Market prospects for a successful service package
- 10 Demonstration studies will be selected from about 35 applications
- Demonstration studies will be carried out from September 2013 - 2014

Project distribution



An aerial photograph of a rugged coastline. The upper portion of the image shows steep, eroded cliffs in shades of red and brown, with intricate patterns of ridges and gullies. The lower portion shows a vibrant turquoise sea with white foam from breaking waves crashing against the base of the cliffs. The text "Thank you for your attention!" is overlaid in white, bold, sans-serif font in the upper-middle section of the image.

**Thank you for your
attention!**