

INTEGRATION OF GEOSPATIAL AND SOCIAL DATA TO SET UP AND DEVELOP A WATER RESOURCES MANAGEMENT SYSTEM FOR THE OUM ER RBIA BASIN (MOROCCO): Contribution to climate change adaptation

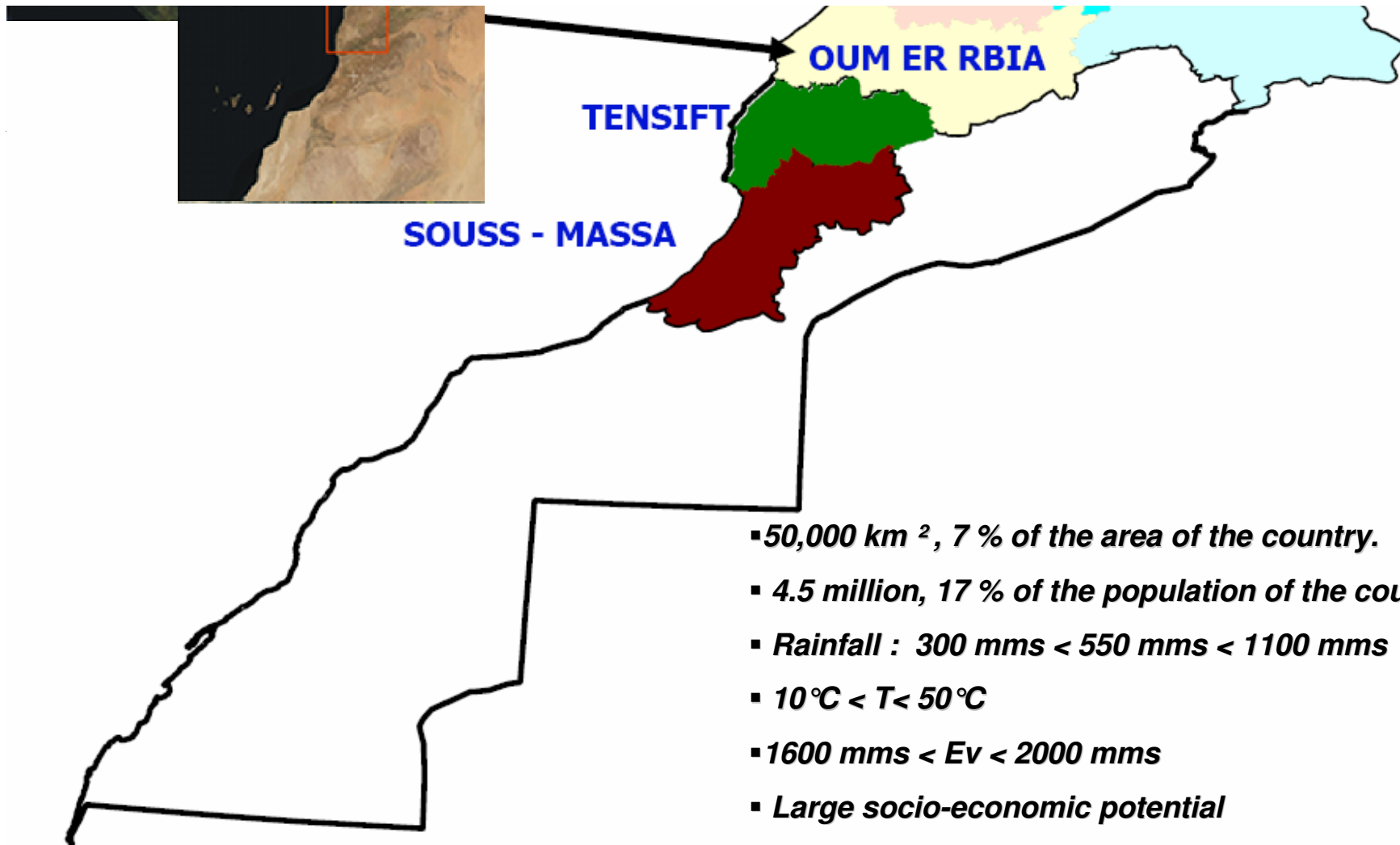
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Geographic Situation & Problematic

Water potential :

- Storage of the basin are valued to 5750 Mm³
- Annual contributions: 3360 Mm³, max: 8300 Mm³, min : 1300 Mm³
- 15 dams , 5 are important (2880 Mm³ / year, 30% of the volume of water mobilized in the country).
- 12 groundwater and deep aquifers (320 Mm³/ year)



Degradation of Quality



Water Collector”



Industrial

- Spill of 16 Mm³/year
- Organic pollution 11000T BOD and 22000T COD

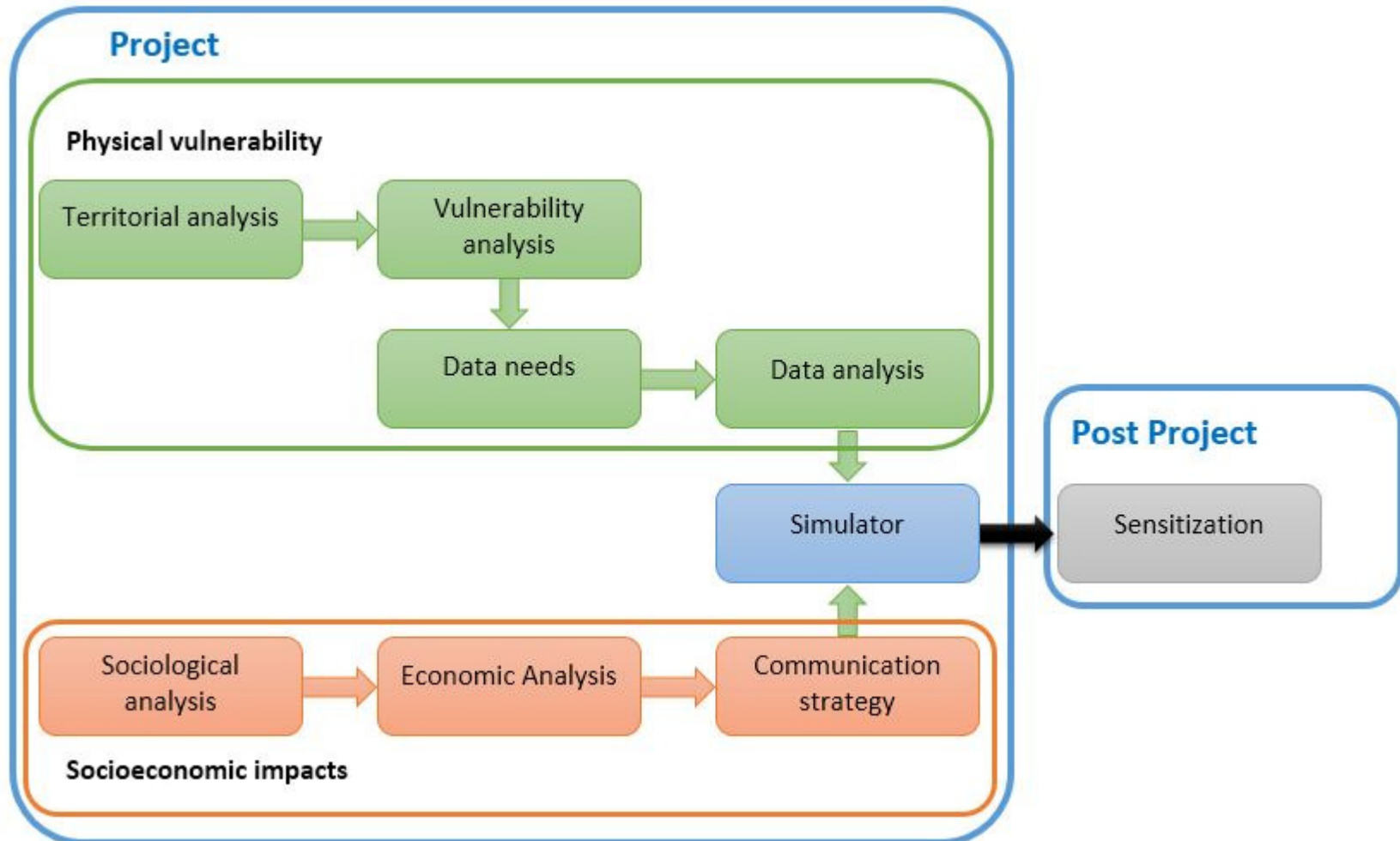
Agricultural

> Use of fertilizers and pesticides in irrigated areas (3500 t / yr of nitrate)

Challenges

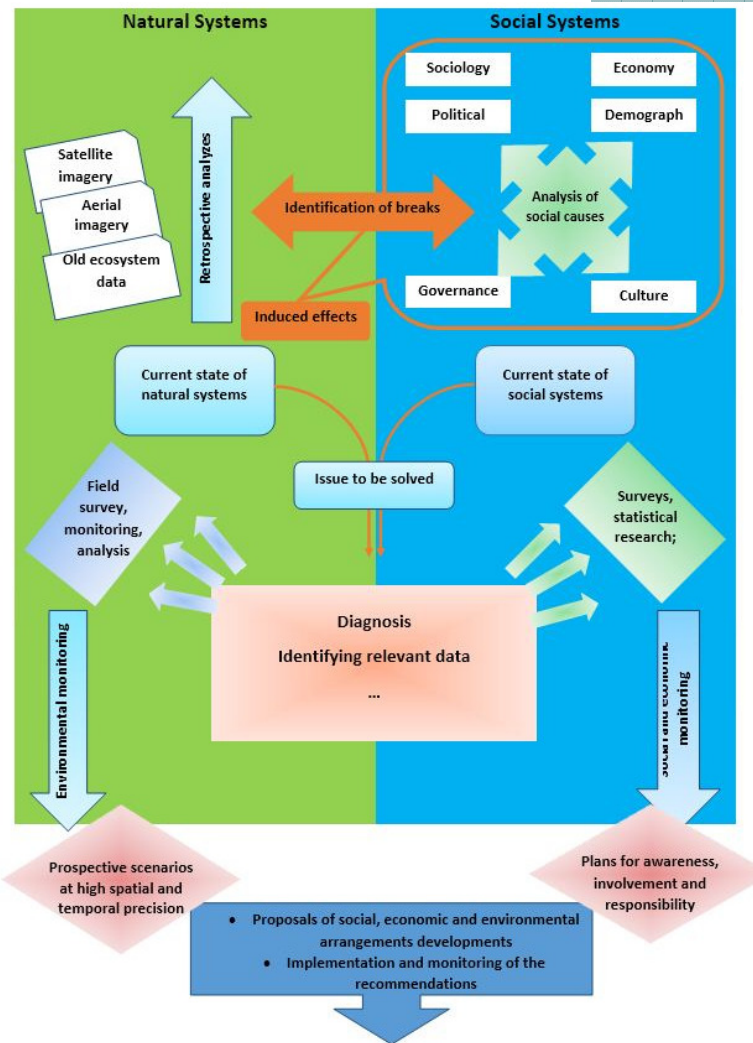
- **Characterize the resource**: current status and prospective models to identify trends, according to natural (CC) and human impacts.
- Propose a **plan for optimal management** will include a component to raise awareness of good practice for saving water.

Project configuration



• **Biophysical vulnerability profile.**

- inventory and monitoring of the variability of water resources
- land cover / land use change and degradation mapping, implications on the territorial dynamics.
- Hydrological monitoring and water balance characterization

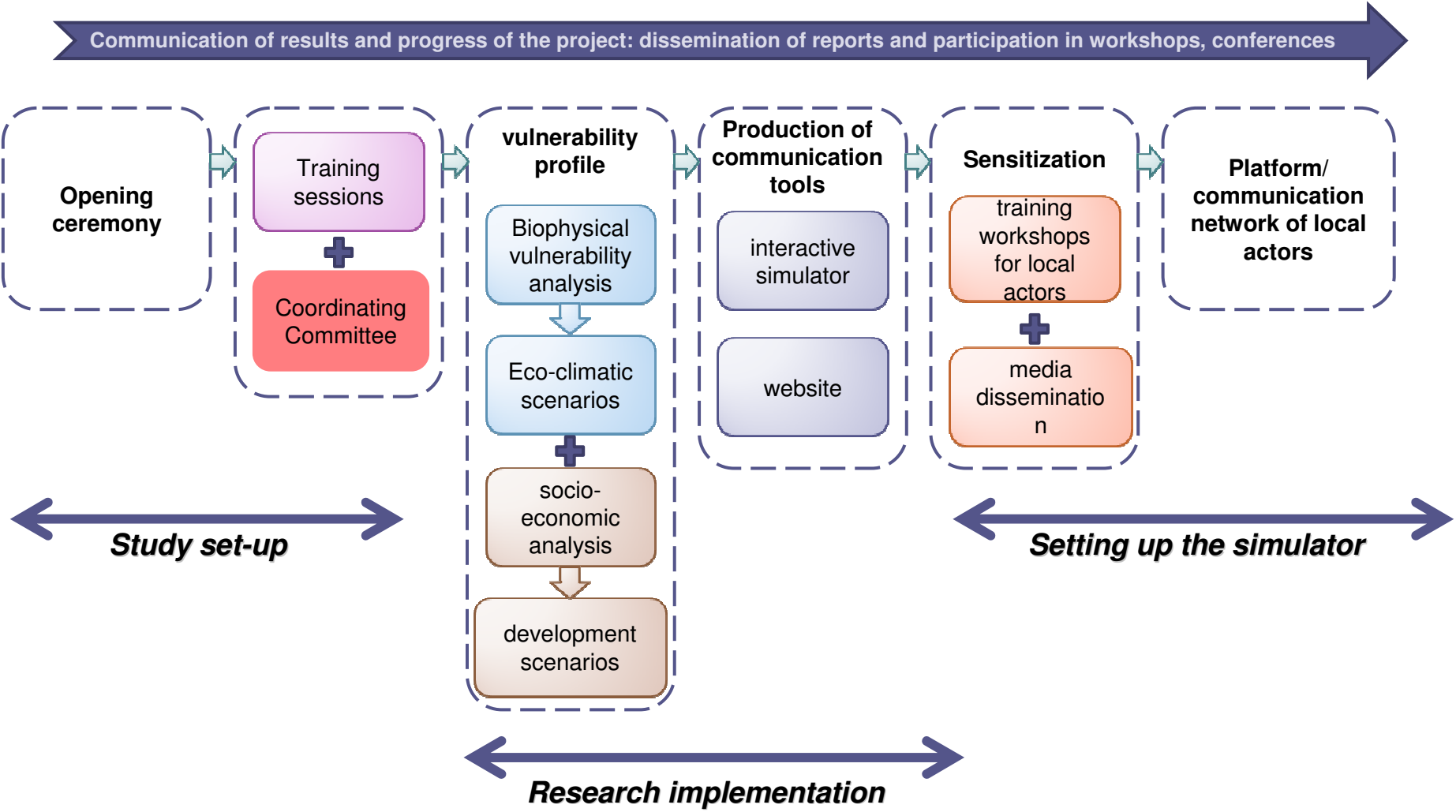


• **Socio-economic vulnerability profile**

- competition for water between users.
- water quality and impact of human activities.
- Mapping of sociological information.
- Self-adaptive capabilities to CC, costs of adaptation.

• **Develop future scenarios for sustainable development, and set up of an interactive simulator**

- Compile, synthesize, organization and implementation of a prototype system.
- Highlight problems and opportunities, and divide the basin into different zones according to their needs.
 - Prospective situations and scenarios, proposed future plans



Local Partners- End user



hydrological basin Agency of Oum Er Rbia



Geosciences & Remote Sensing Group, UCD_J



Delft University of Technology



Cherifian Office of Phosphate



REGI National Network of Geo-information Sciences



Moroccan Association of Remote Sensing of the Environment



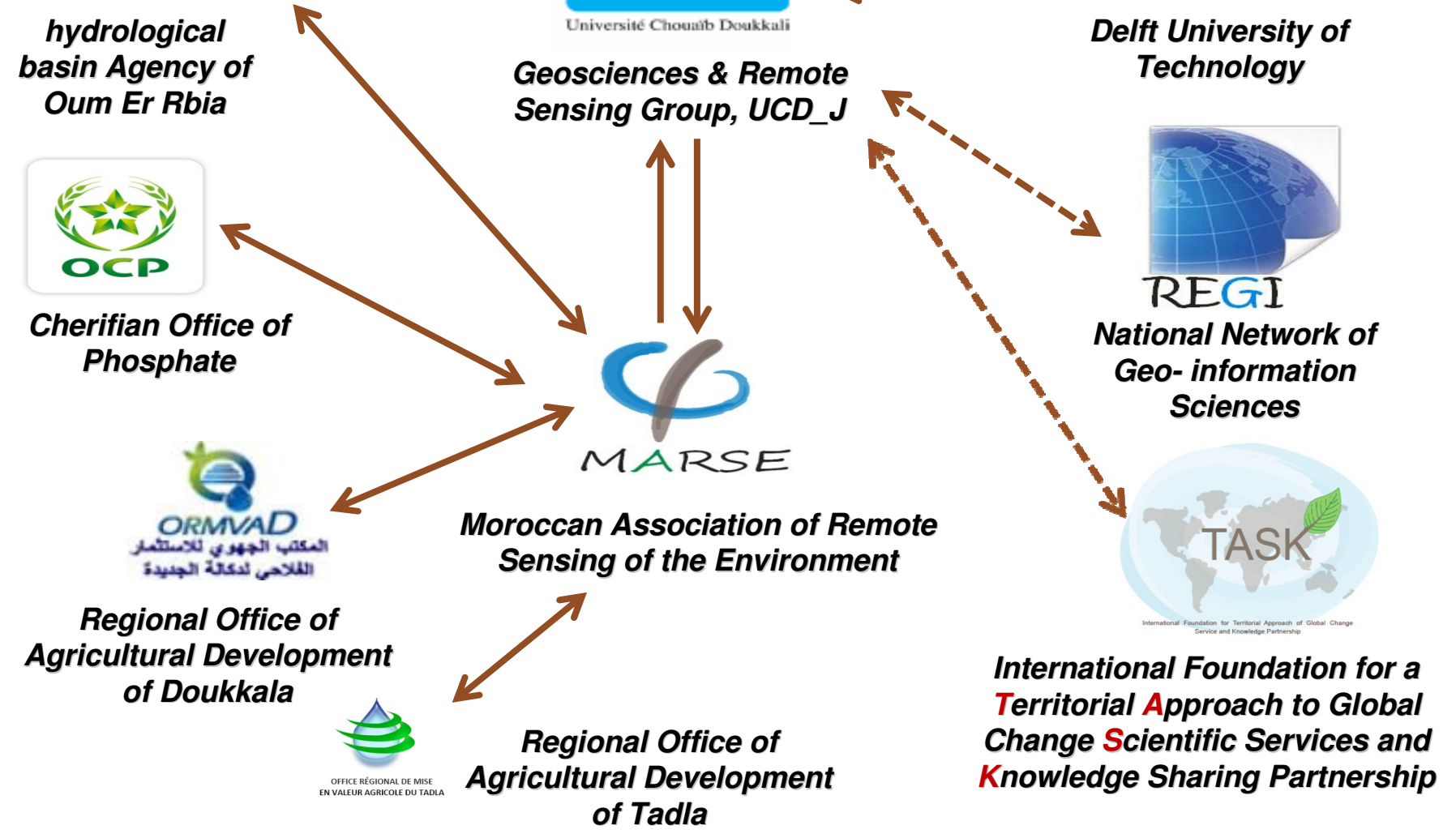
Regional Office of Agricultural Development of Doukkala



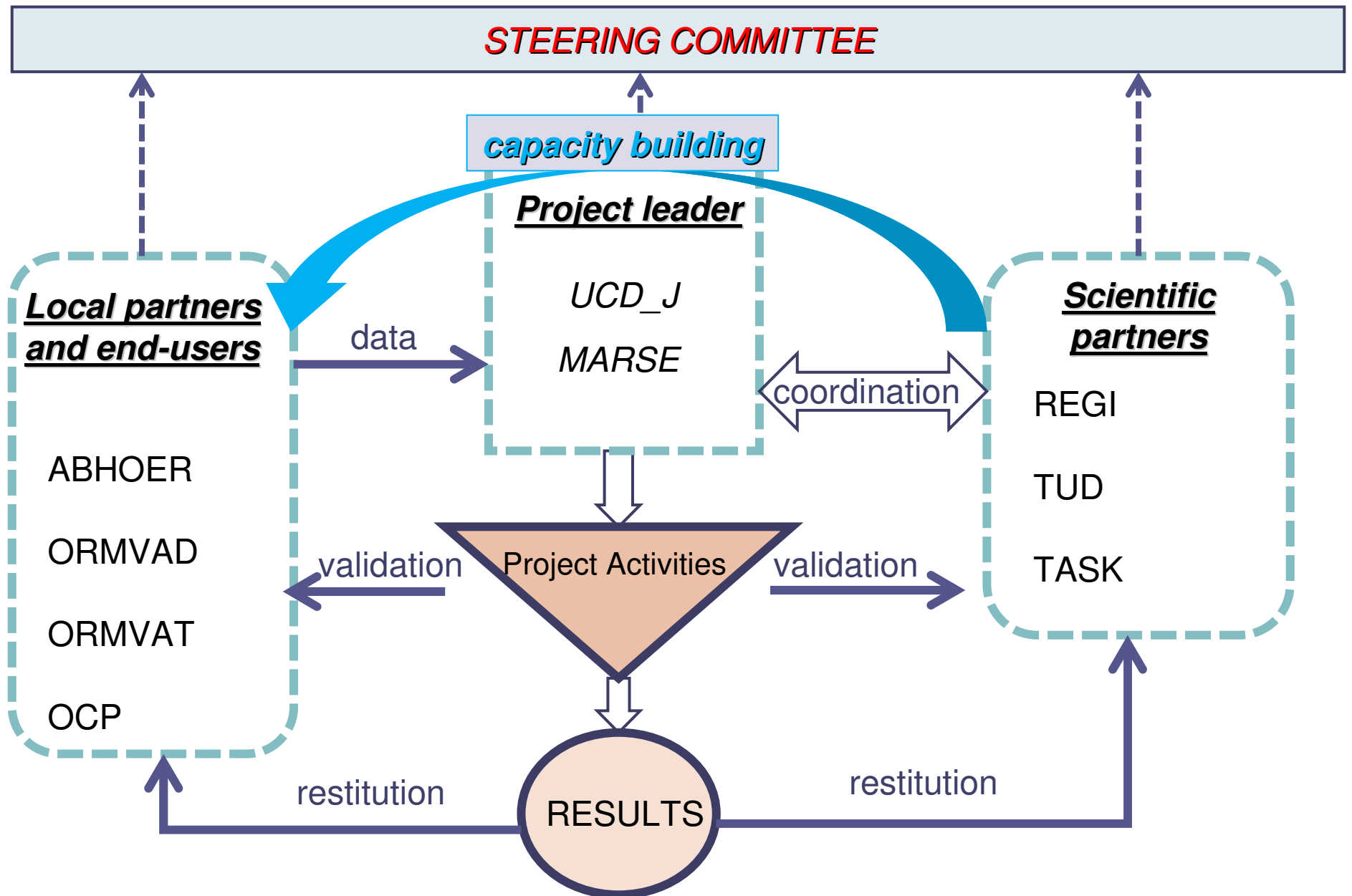
International Foundation for a Territorial Approach to Global Change Scientific Services and Knowledge Sharing Partnership



Regional Office of Agricultural Development of Tadla



Project Organization/Management



THANK YOU

