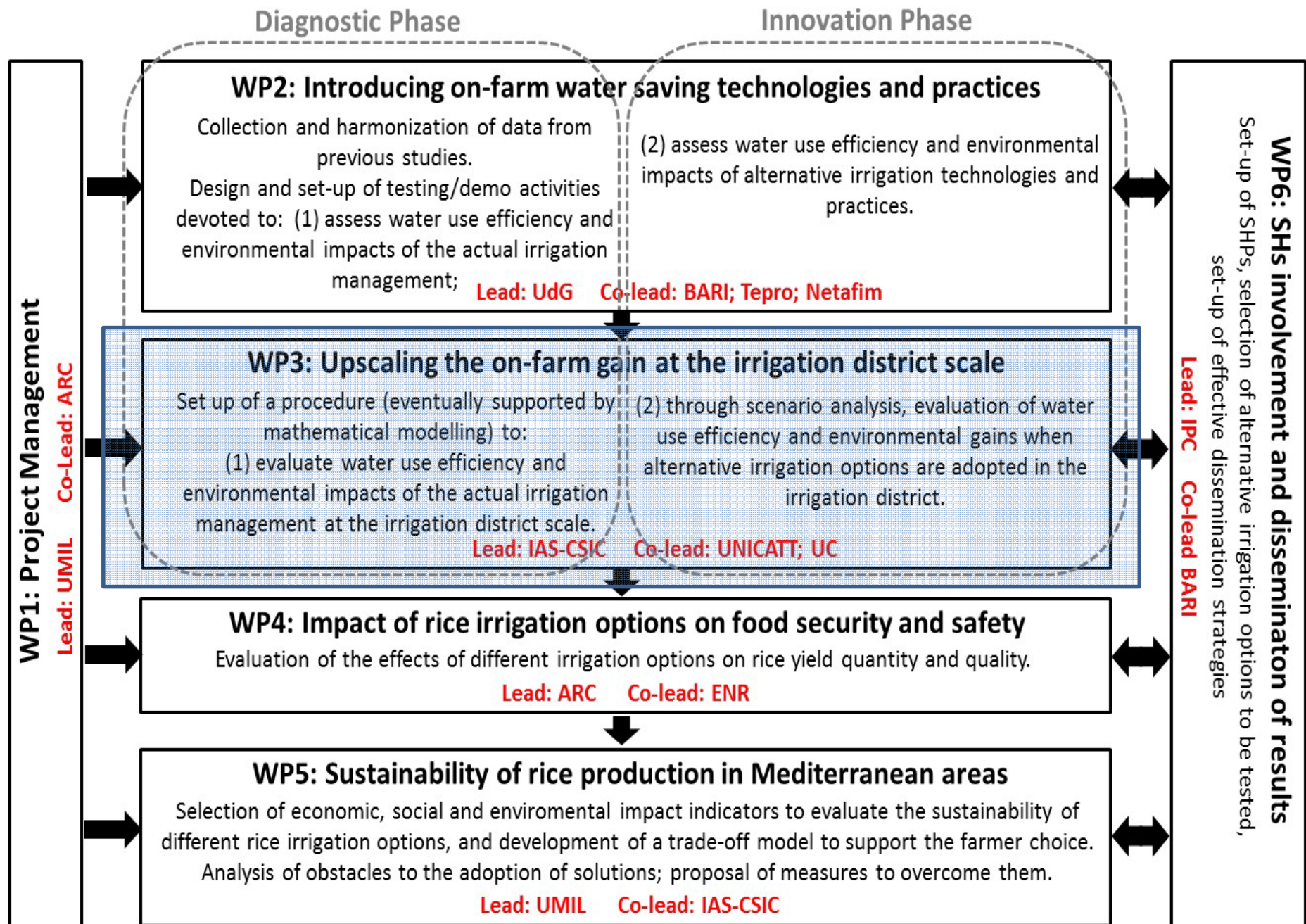




WP3. Upscaling on-farm gains at irrigation district scale

Luciano Mateos





WP3. Upscaling on-farm gains at irrigation district scale

- **Objective**
- **Partners involved**
- **Description of work**
- **Deliverables**

Objectives

- **To upscale the impact of on-farm irrigation management technologies and practices at the district scale**
- **To assess district-level irrigation operation alternatives aiming to water conservation**

Partners involved



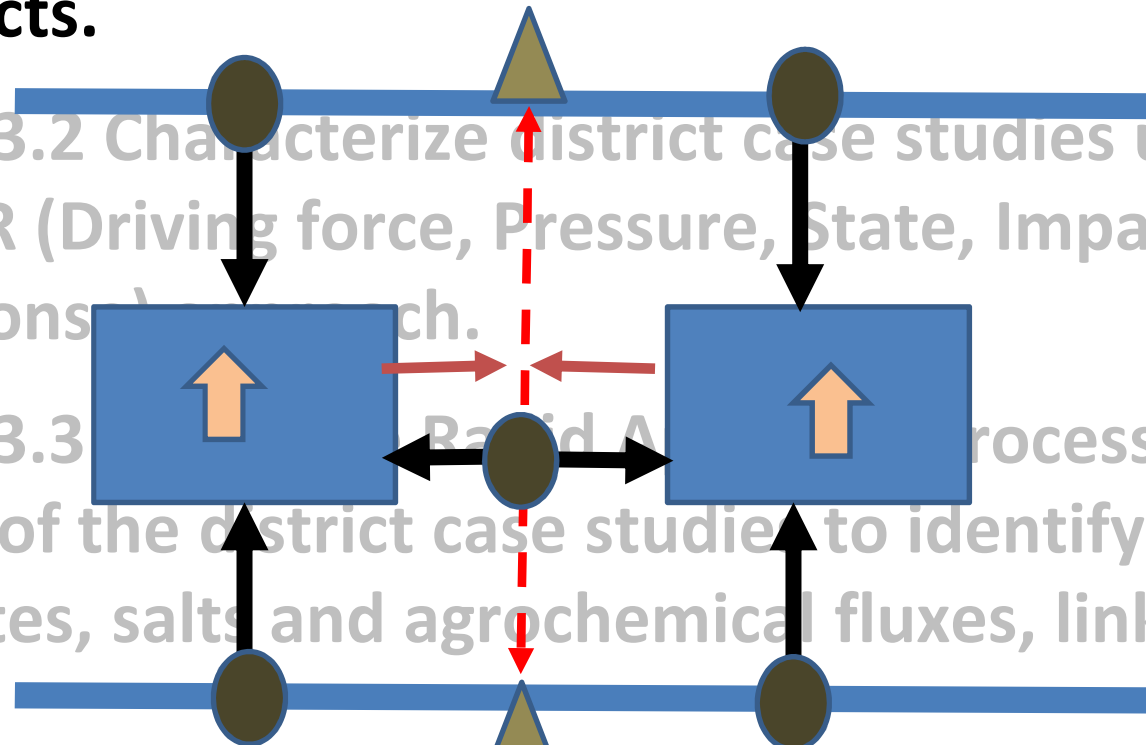
WP3. Upscaling on-farm gains at irrigation district scale

- Objective
- Partners involved
- **Description of work**
 - Definition of the conceptual framework to upscale on-farm data
 - Collecting existing and new datasets for districts
 - Set-up and application of procedures to upscale on-farm data to the irrigation district
- Deliverables

Definition of the conceptual framework to upscale on-farm data

- Task 3.1 Define a common conceptual framework for understanding water, nitrates, salts and, when monitored, agrochemical fluxes in rice irrigation districts.

- Task 3.2 Characterize district case studies using a DPSIR (Driving force, Pressure, State, Impact and Response) approach.
- Task 3.3 Rapid Assessment Process (RAP) in each of the district case studies to identify water, nitrates, salts and agrochemical fluxes, linking with WP2.



Definition of the conceptual framework to upscale on-farm data

- Task 3.1 Define a common conceptual framework for understanding water, nitrates, salts and, when monitored, agrochemical fluxes in rice irrigation districts.
- **Task 3.2 Characterize district case studies using a DPSIR (Driving force, Pressure, State, Impact and Response) approach.**
- **Task 3.3 Apply the Rapid Appraisal Process (RAP) in each of the district case studies to identify water, nitrates, salts and agrochemical fluxes, linking with WP2.**

Collecting existing and new datasets for districts

- **Task 3.4 Collect existing physical data (soil, climate, irrigation/drainage layout, land divisions, water circulation) for each district. Interviews to rice farmers to investigate actual water and agronomic management, and extend information for the upscaling of impacts on water balances and environmental quality in WP5.**
- **Task 3.5 During at least one season, monitor water, nitrates, salts and, for some CSs, agrochemical fluxes at critical nodes in the channel network.**

Set-up and application of procedures to upscale on-farm data to the district

- **Task 3.6 Assemble and apply district-specific functional models. Simple procedures will be used in cases in which a comprehensive data-set at the irrigation district level is not be available. In CSs in which data-set and capacity are available, procedures based on well-tested agro-hydrological models (SWAP, RICEWQ, Vadoft, RIVWQ) will be developed, linking with data collected in WP2. Data produced in WP3 will be used for sustainability assessment in WP5**

Deliverables

- **D3.1 Report on conceptual framework and case studies RAP [month 12].**
- **D3.2 Report containing the data collection and district-specific functional models [month 24]**
- **D3.3 Report on the application of models to assess alternative on-farm and district water saving practices [month 36]**



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