

Irrigation modernization

An integrated perspective across spatiotemporal scales

Sandra Pool Joaquín Jiménez-Martínez
 Hong Yang Mario Schirmer

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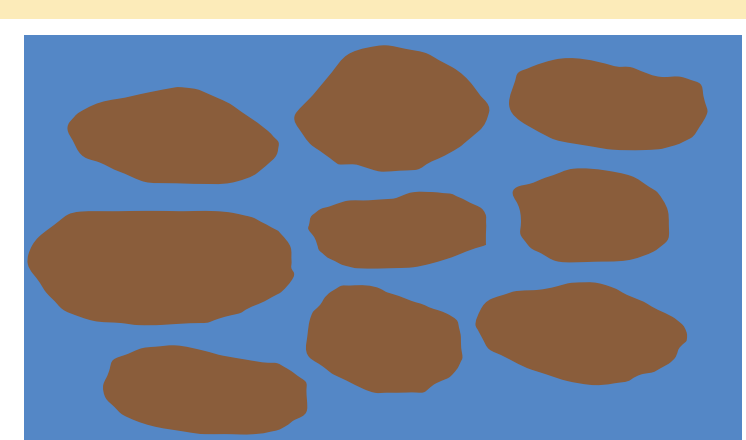
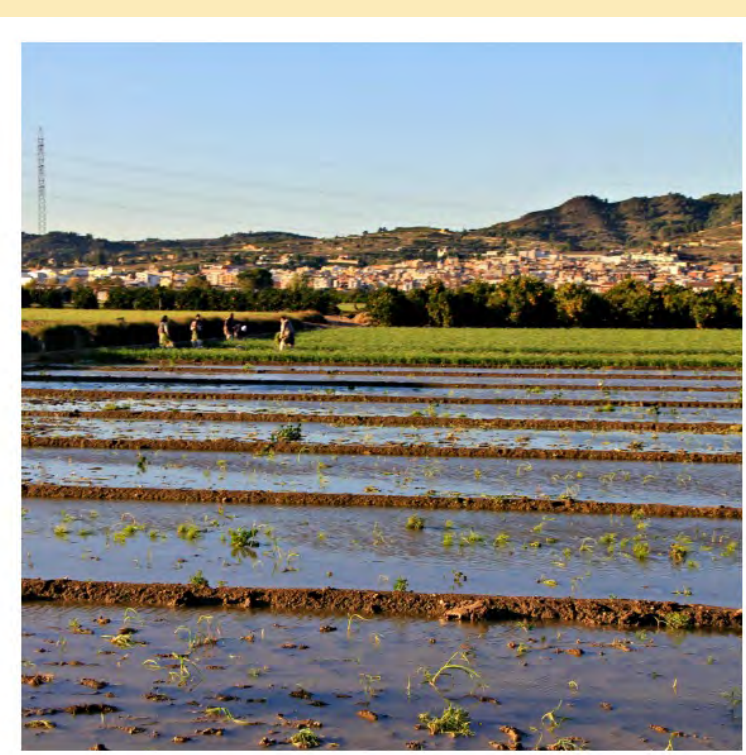
Project title
 IRRIWAM



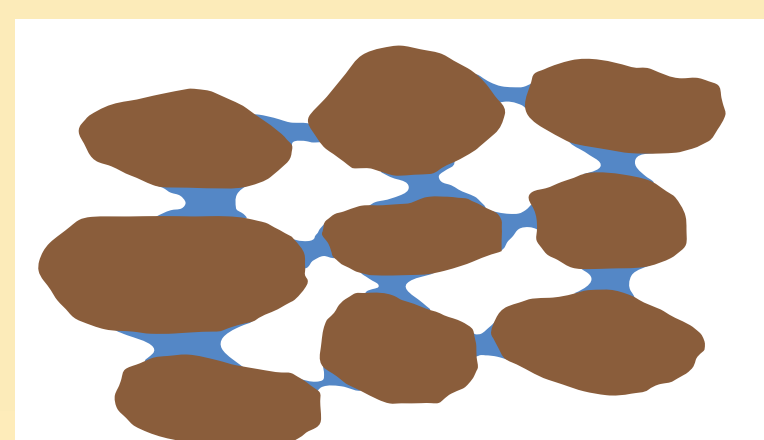
Irrigation modernization

How are different water balance components affected by a modernization of irrigation methods?

Flood irrigation



Drip irrigation

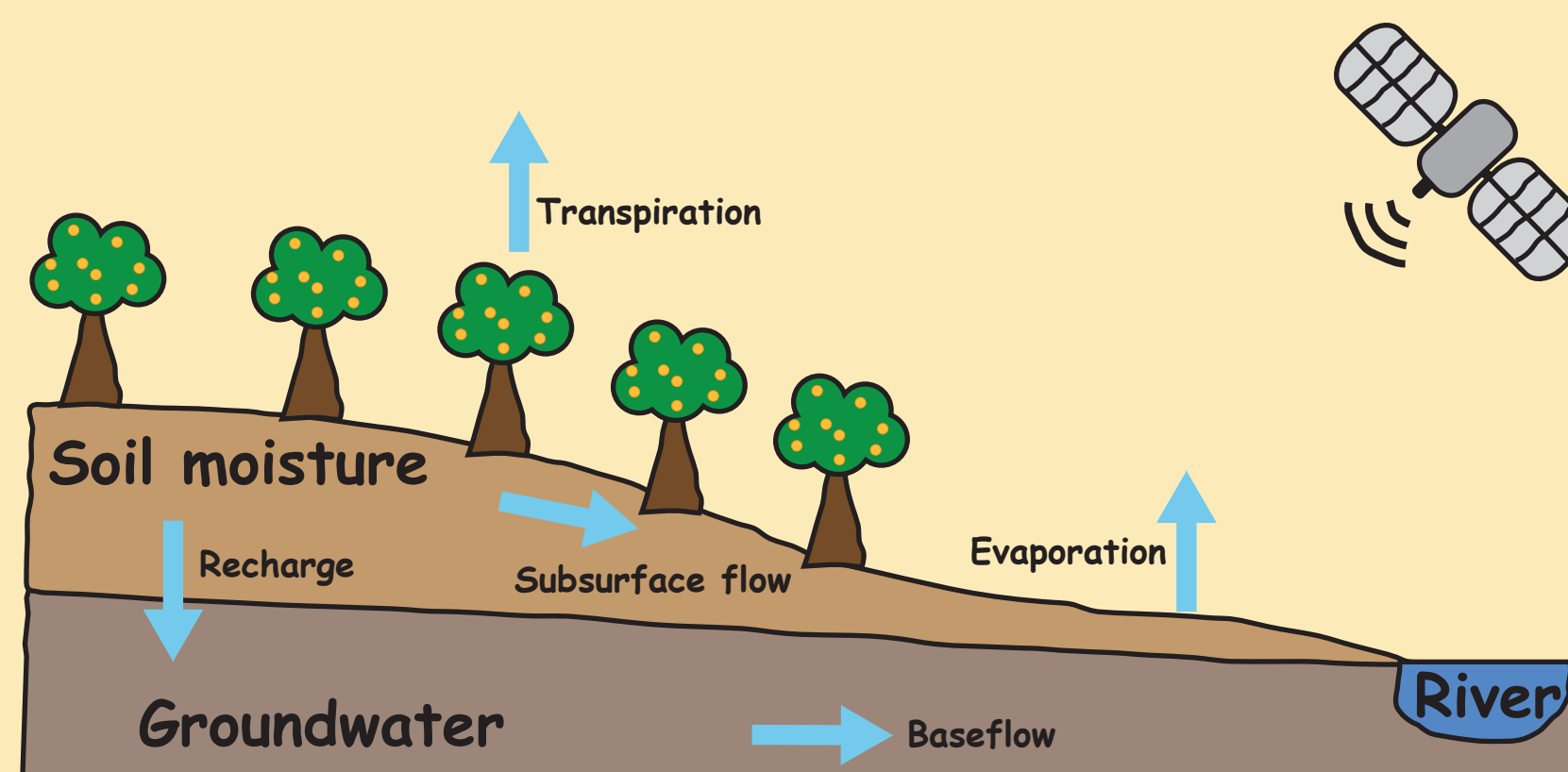


Agricultural policies led to a change from flood to drip irrigation.

Irrigation pictures from www.gsoil.wordpress.com

Spatial upscaling

How can local knowledge be reliably transferred to the regional scale?



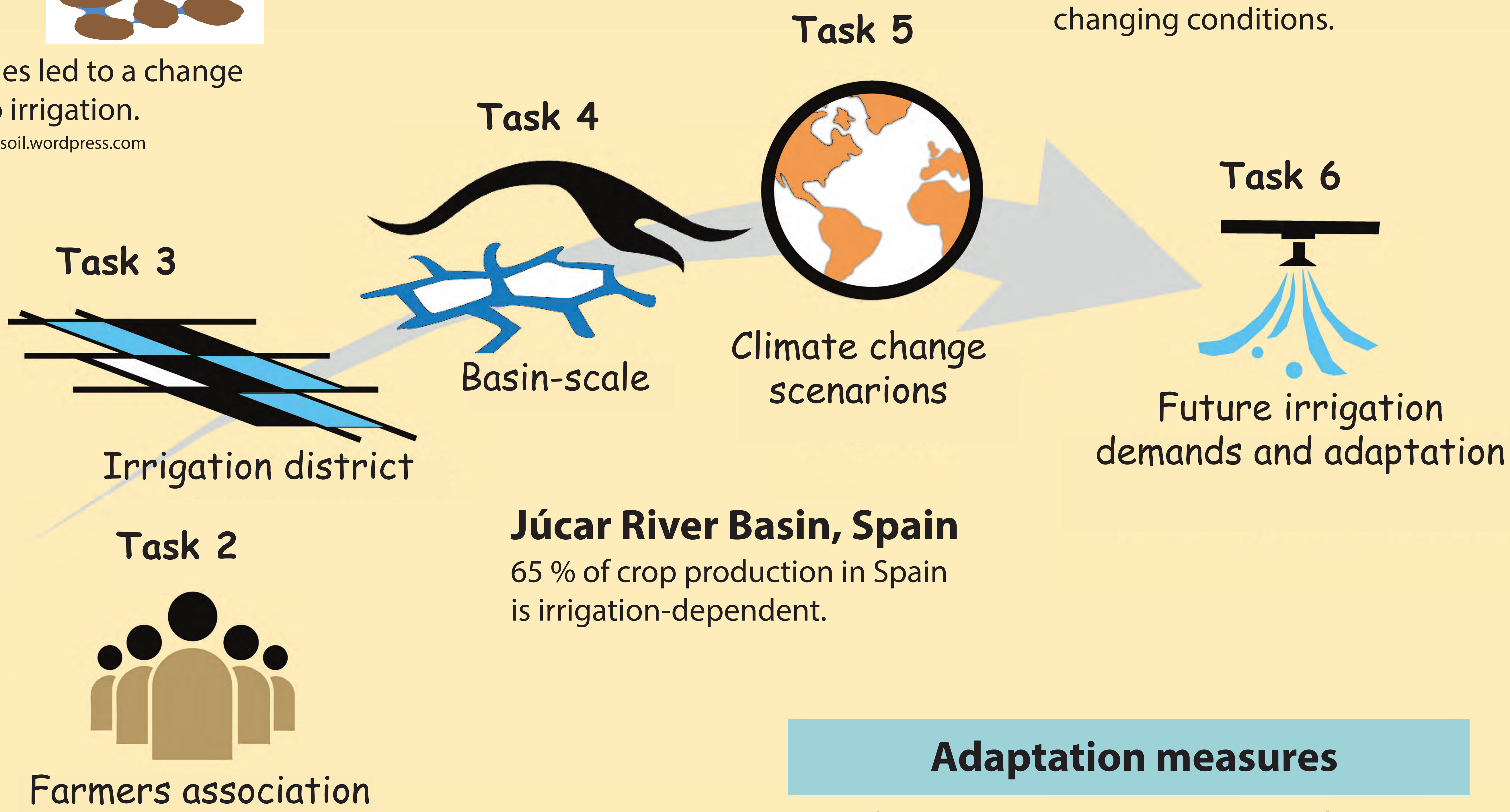
Hydrological models and remote sensing as tools for simulating and upscaling water balance information.

Climate change

How does climate change influence irrigation efficiency?



- Drying conditions in the future.
- Performance of current irrigation methods under changing conditions.



Participatory approaches

What are the personal experiences of stakeholders with different irrigation methods?



Picture from www.CostaBlancaRadsport.com

- Interviews about water use, fertilizer application, production costs, and crop yield.
- Benefits and drawbacks of irrigation methods.

Adaptation measures

Is modernization a proper strategy to achieve sustainability in citrus crops?

- Estimate of future water demands based on physical processes and water management.
- Agricultural policy recommendations for various scenarios.



Picture from www.gsoil.wordpress.com

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