



FAO's work on

Natural Resources Management

with focus on water

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FAO Strategic Objective “F”

Sustainable management of land, water and genetic resources and improved responses to global environmental challenges affecting food and agriculture

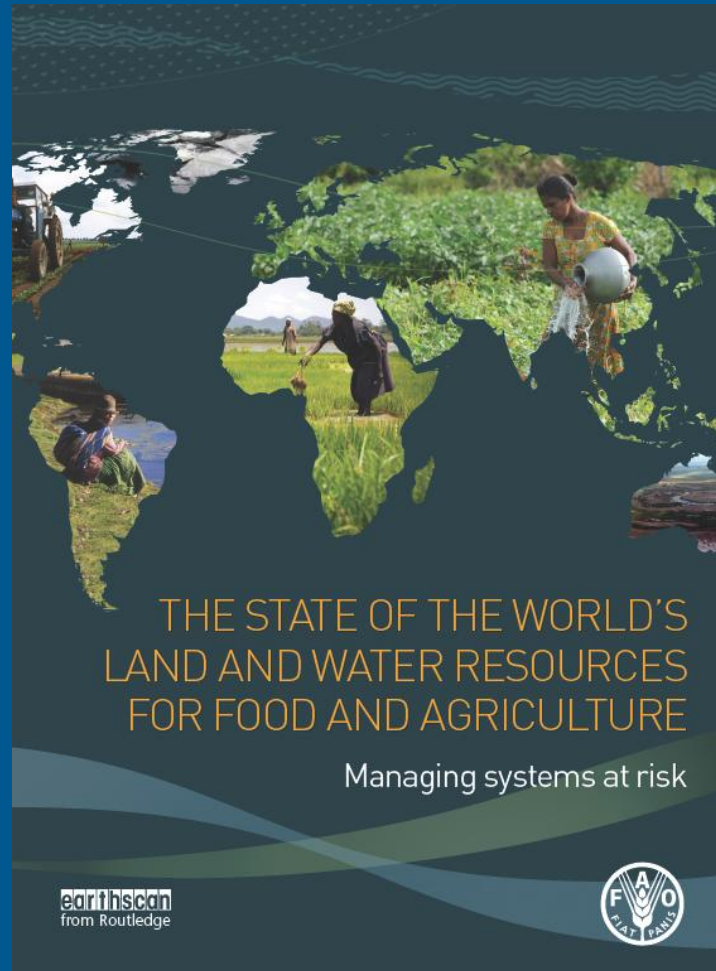


Natural resources and environment programme

- Sustainable land management
- Coping with water scarcity
- Conservation of biological diversity
- 'Climate-smart' agriculture: adaptation and mitigation
- Integrated food-energy systems
- Governance, tenure and access to land



Management of land and water resources





The use of resources by agriculture

**12% used for
crop
production**

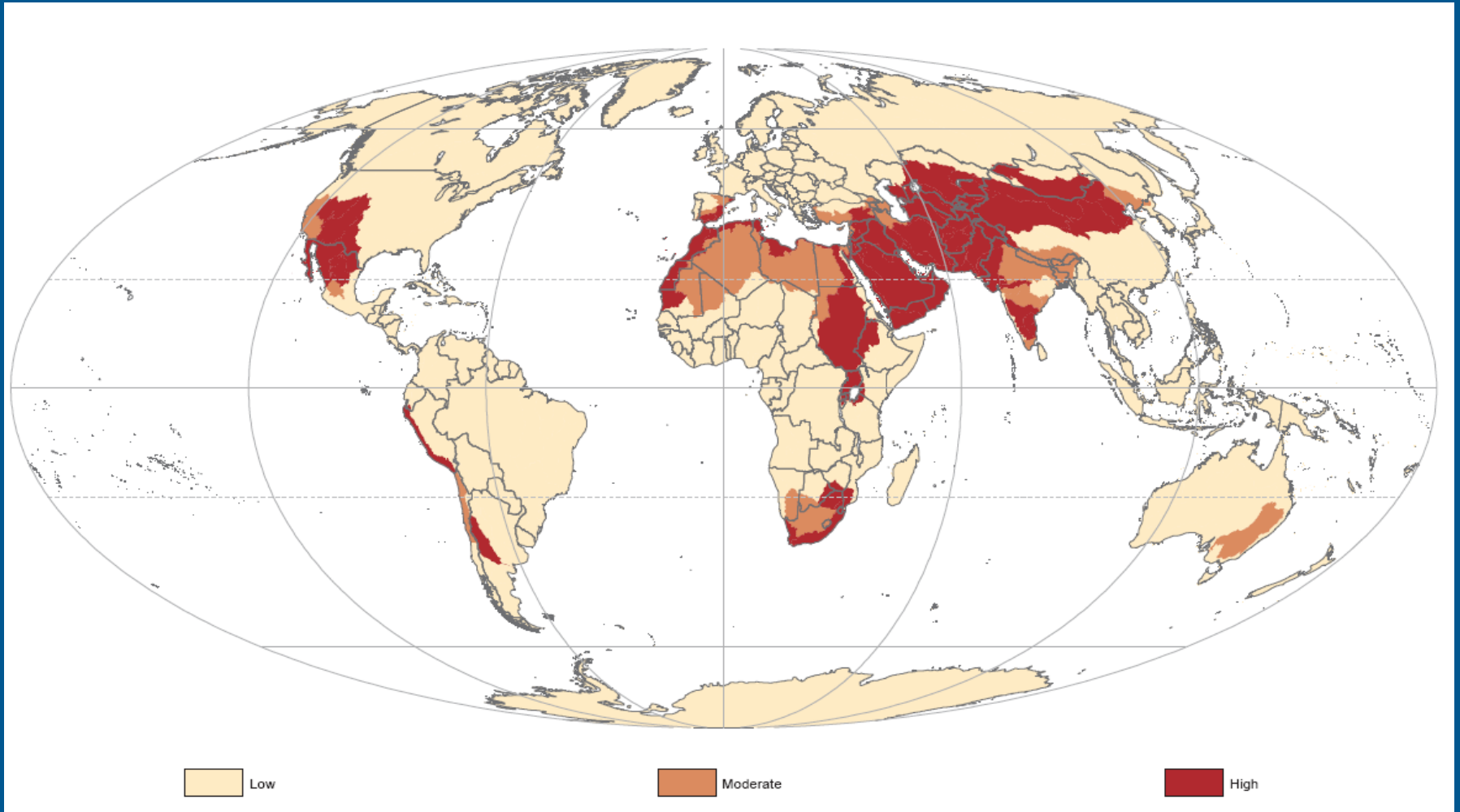
**world's land
surface**

**AG uses
70%
of all water
withdrawn**

**total world's water
uses**



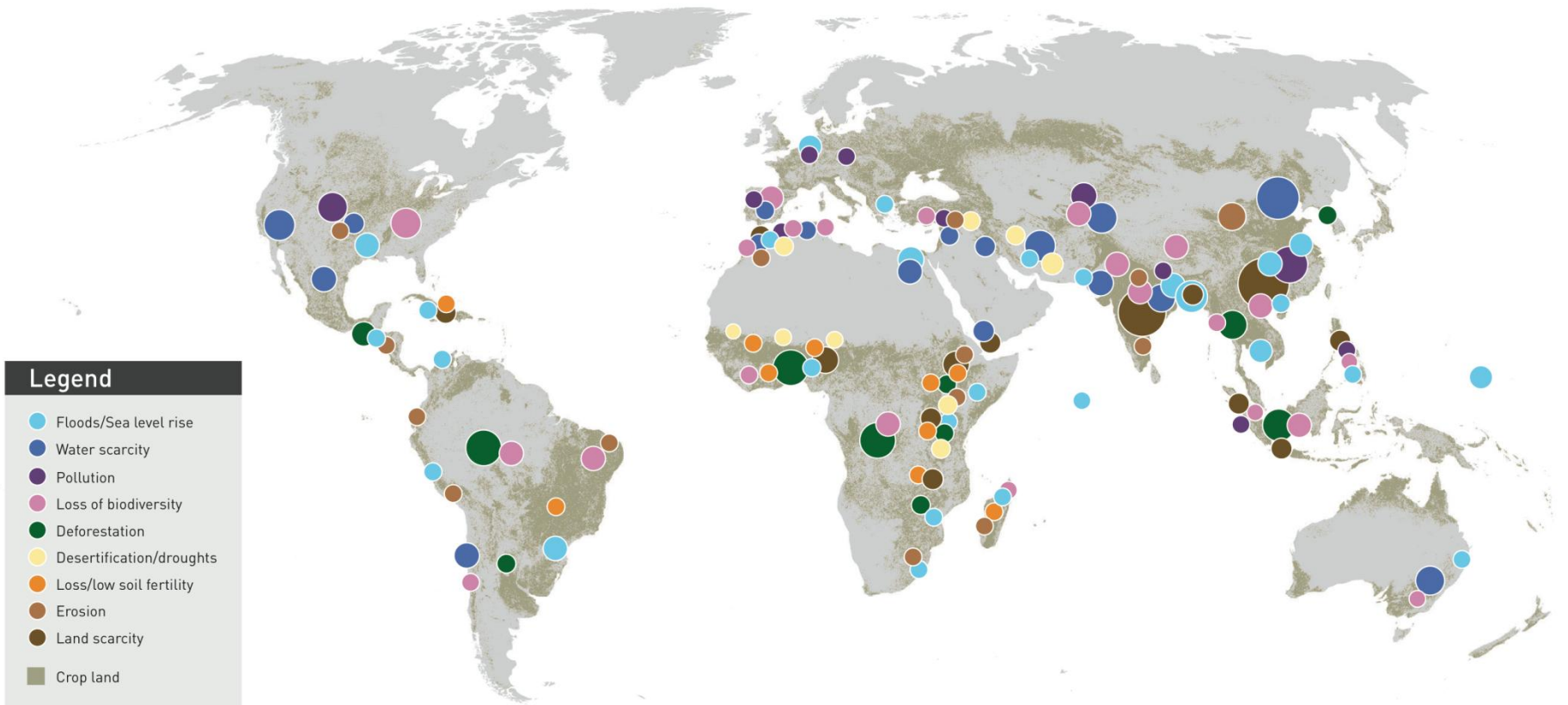
Water scarcity is growing



Source: FAO. 2011: The State of the World's Land and Water Resources for Agriculture and Food Security

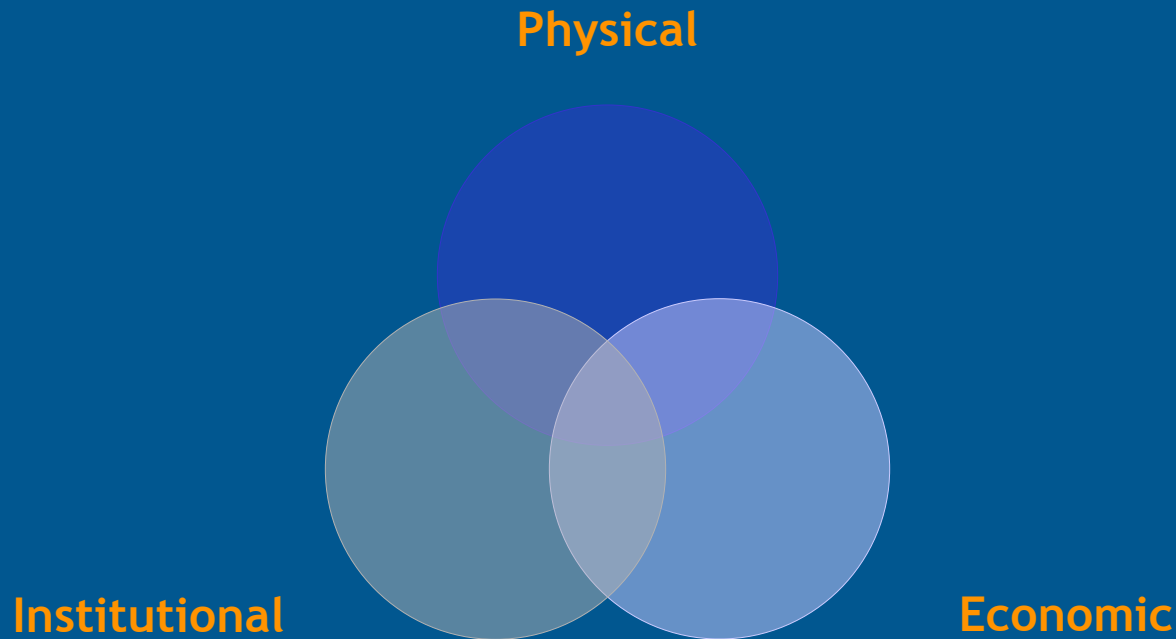


Agricultural systems at risk



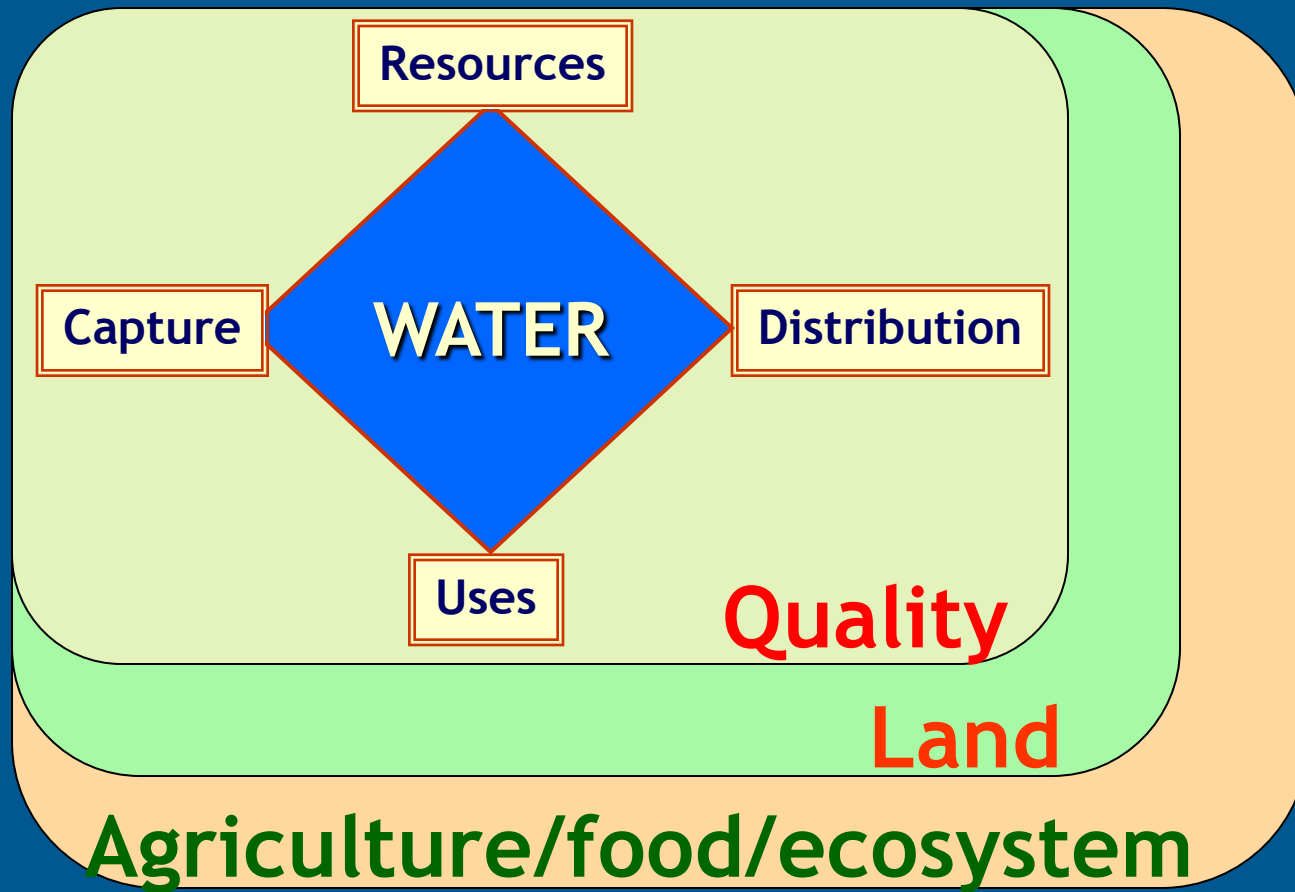


The three dimensions of scarcity





Conceptual framework for the water programme





Elements of FAO water programme 'Coping with water scarcity'

1. Data, information and global studies
 1. AQUASTAT
 2. Perspective studies
2. Water resource assessment and management
 1. Water assessments/water audits
 2. Irrigation policies and investment frameworks
 3. Transboundary water resources management
 4. Climate change adaptation
3. Water productivity enhancement in irrigation
 1. Development of tools and methods
 2. Modernisation of large irrigation schemes
4. Small scale water technologies in support to poverty alleviation
5. Water quality management, including wastewater reuse



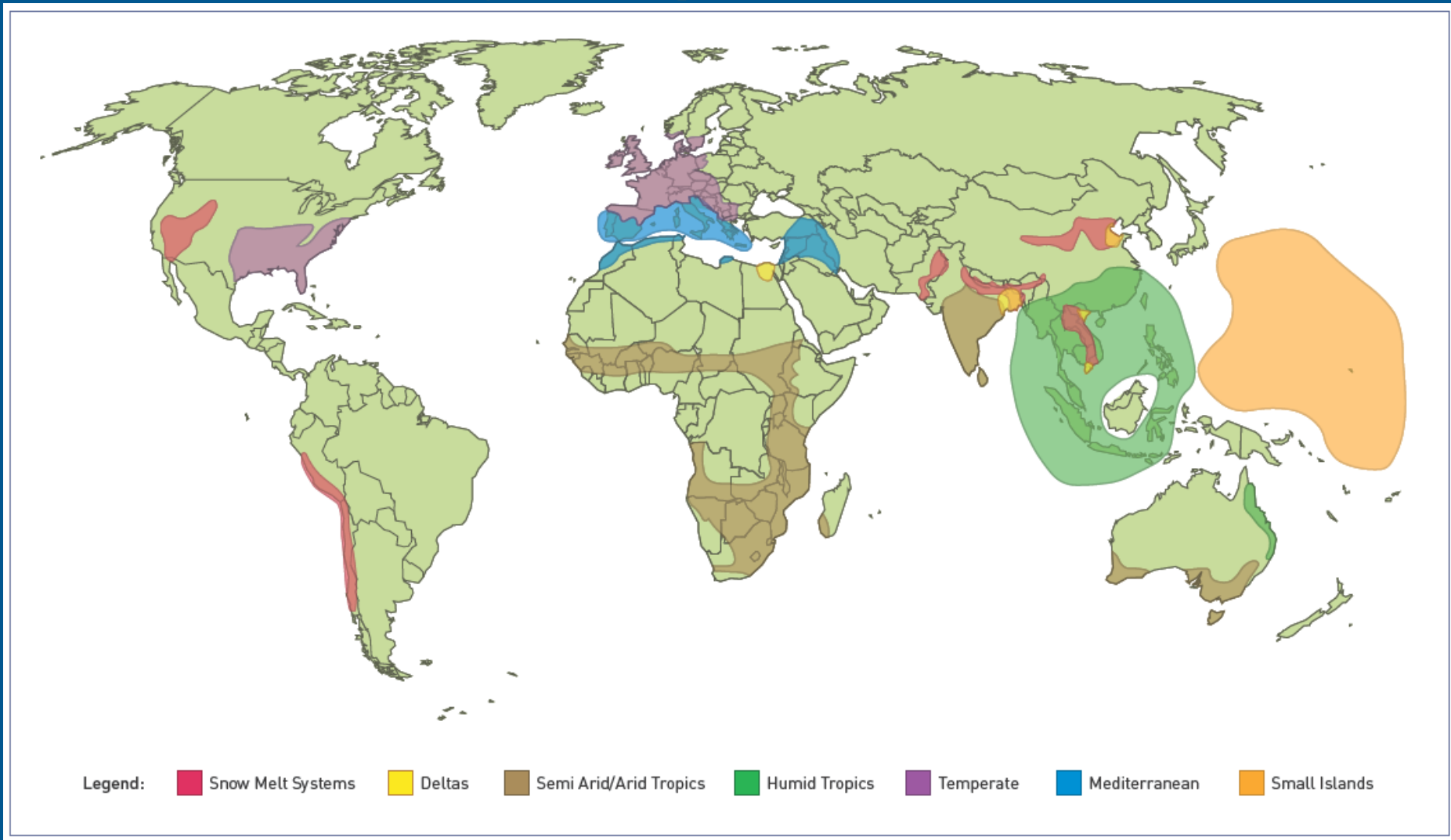
Examples of tools/methods

MASSCOTE (a methodology for performance assessment and modernization of collective irrigation and drainage systems)

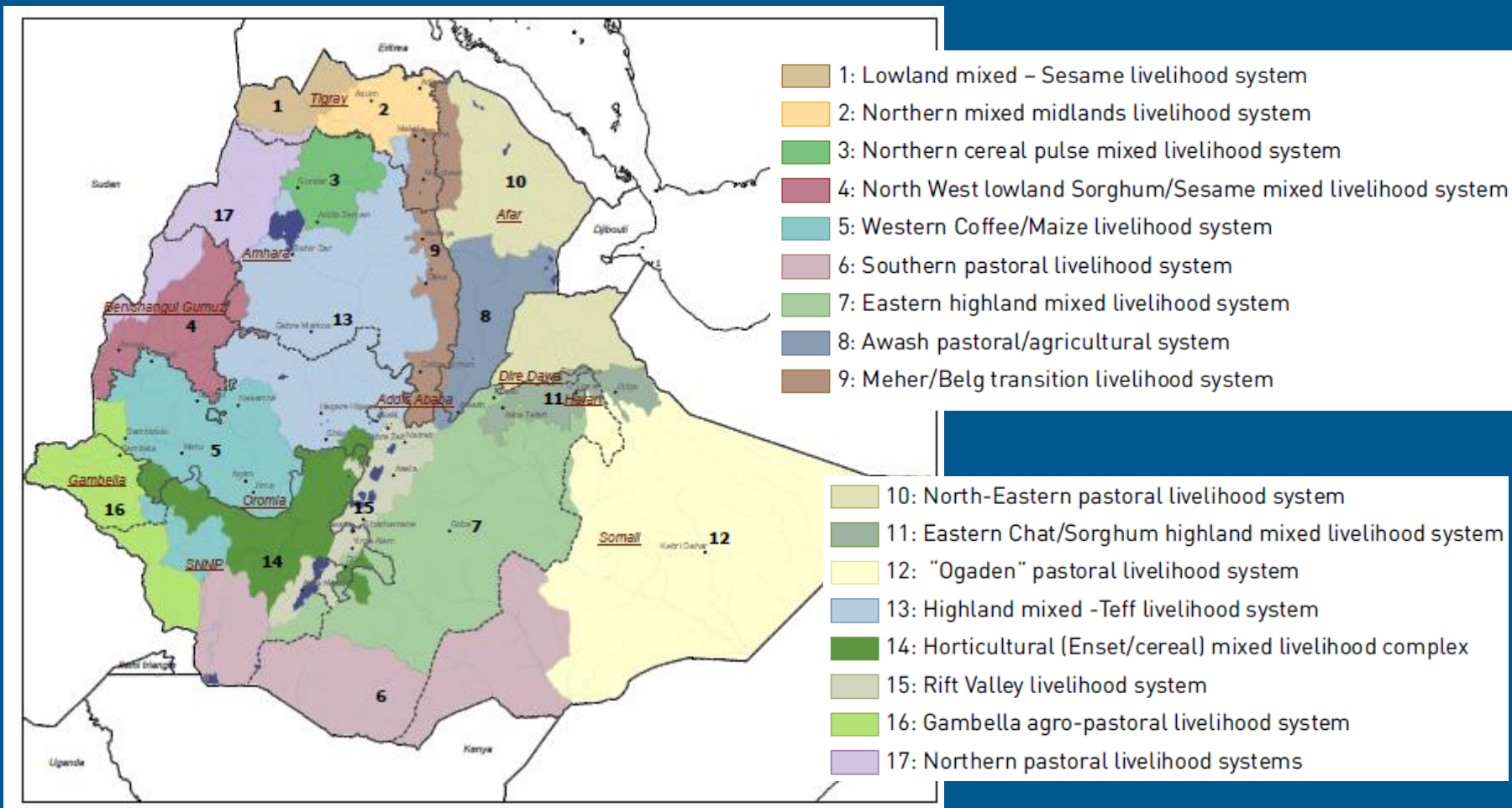
AQUACROP (a crop-water productivity model for estimating yield response to water, also under Climate Change)

Technical guidelines

Climate change adaptation

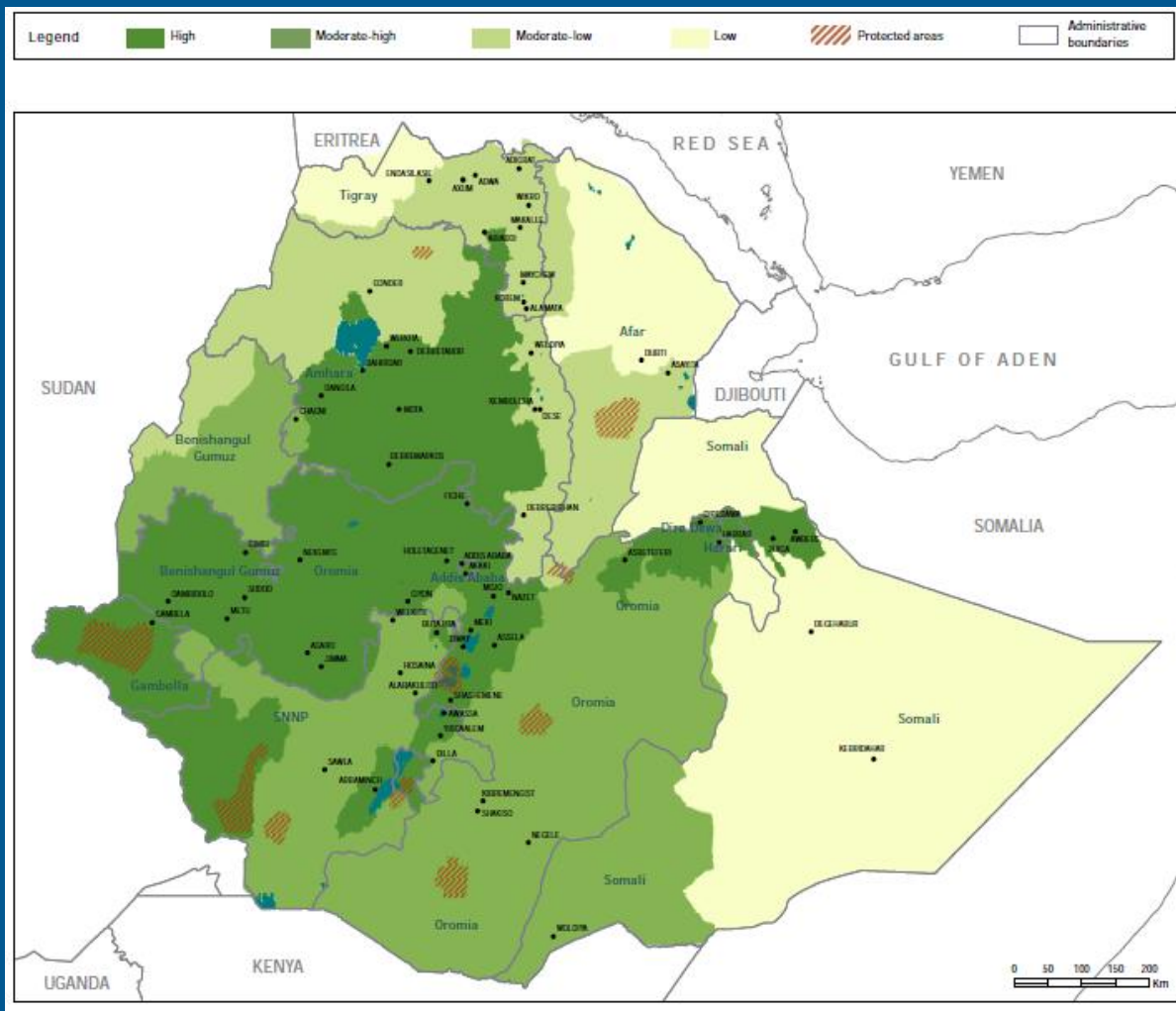


Livelihood mapping: a tool for planning...



Different people in different situations have different needs

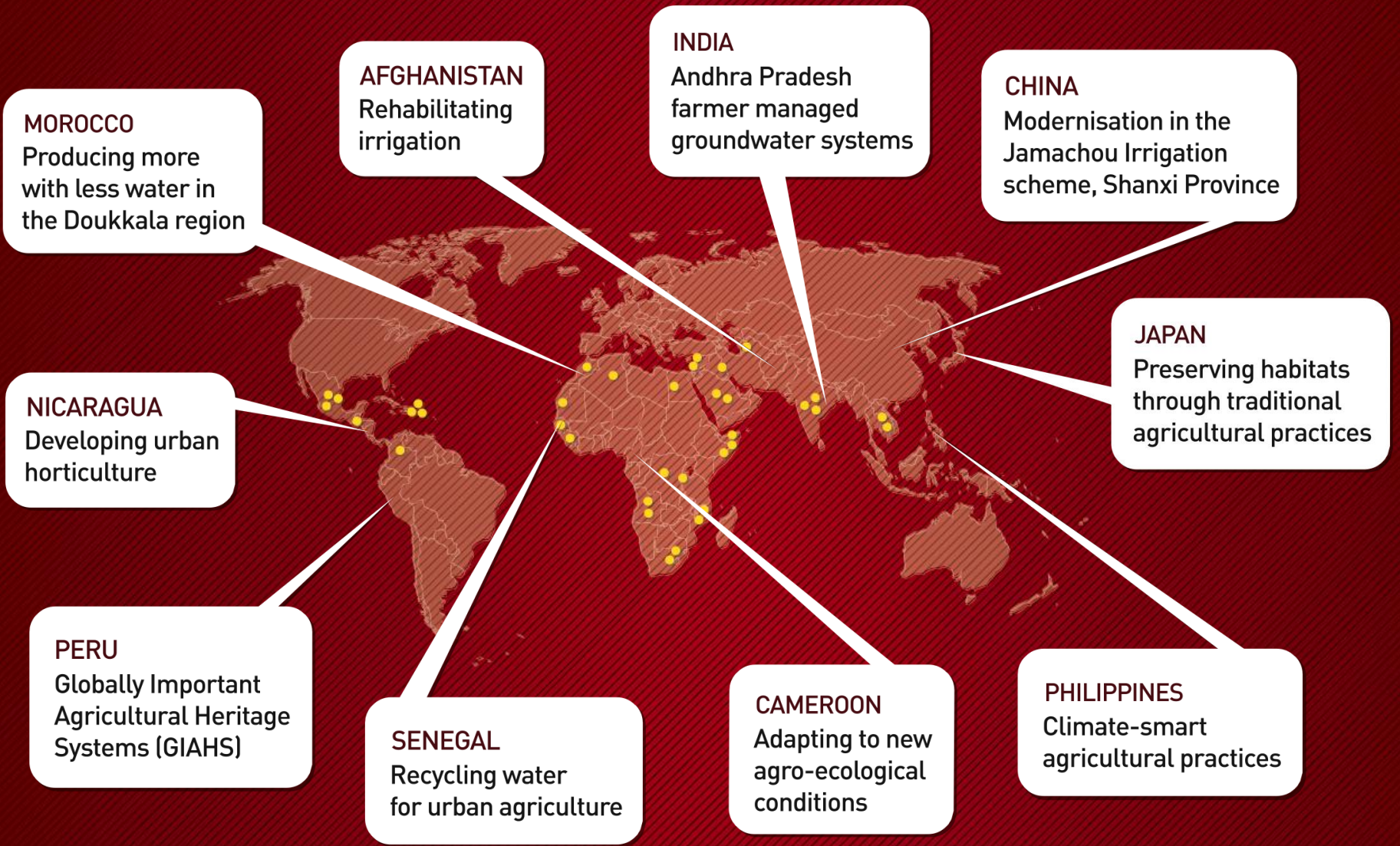
... Prioritizing areas for water interventions



Where can water be the entry point for improving livelihoods?

Where to invest to have the maximum impact on rural livelihoods?

Actions with impact



Actions with impact: rehabilitation of irrigation infrastructure



Actions with impact: promoting efficient watering techniques



Actions with impact: irrigation for smallholders



Actions with impact: conservation of agricultural heritage systems





Thank you

www.fao.org/landandwater