



Ecosystem-based adaptation approaches

Lessons from the EU-
funded SEARCH and other
projects

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TURIN (ITALY),

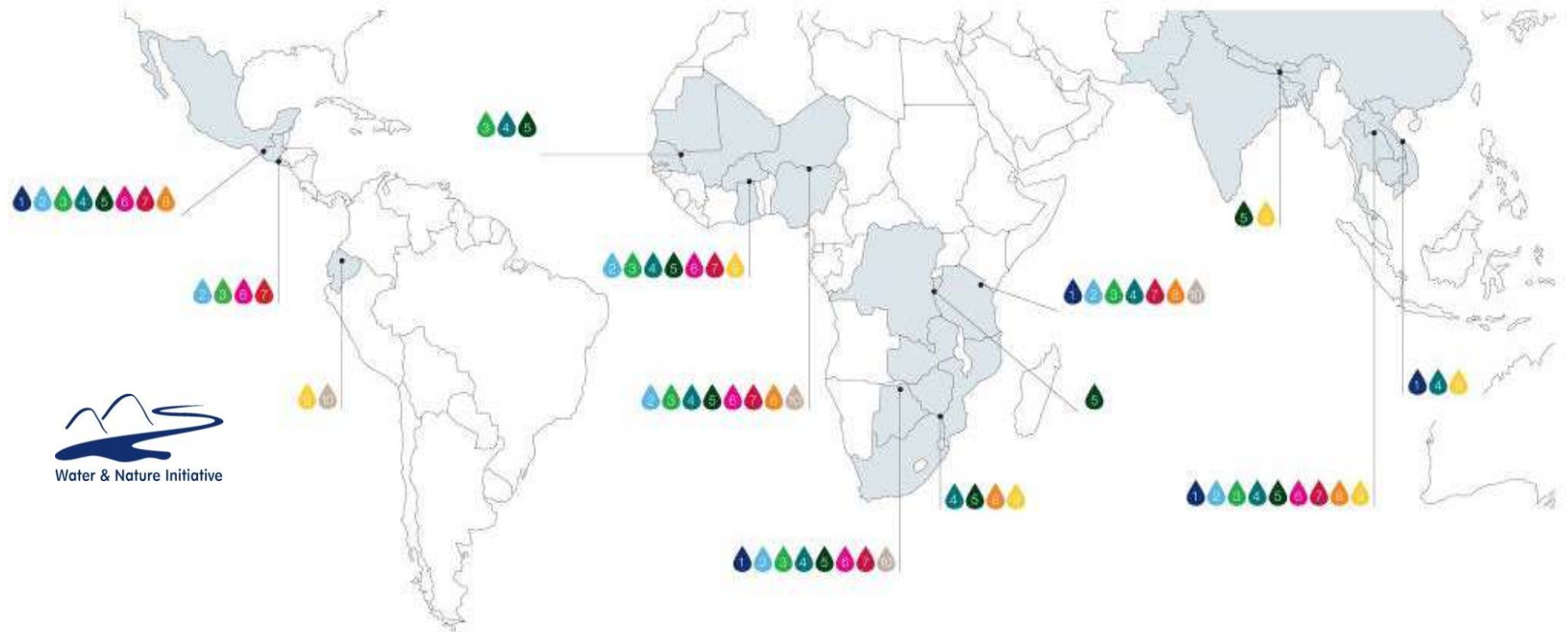


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IUCN Water and Nature Initiative

- 1 New national water policies
- 2 Multi-stakeholder platforms empowered
- 3 Basin-level water forums
- 4 Partnerships for sustainable water
- 5 New transboundary agreements



2001-2008

- 6 New income generation for poor people
- 7 New assets for sustainable livelihoods
- 8 Reduced vulnerability to climate risks
- 9 Toolkits drive innovation
- 10 Major basin financing mobilised



Making sense of the Ecosystem Approach for water

1. What is the water-related problem, and what ecosystem services are needed to solve it?
2. What actions are needed?
3. What governance, and what agreements are needed to enable action?
4. What knowledge is needed?
5. What incentives and financing are needed?
6. Who needs to be empowered to act?
7. What capacities are needed?

WANI Toolkits : unpacking EA

Ecosystem services are part
of the solution to water problems



Improved water governance
underpins action

Lack of transboundary coordination
impairs action



WANI Toolkits : unpacking EA

Investment decisions support
system approach implementation



Appropriate financial incentives

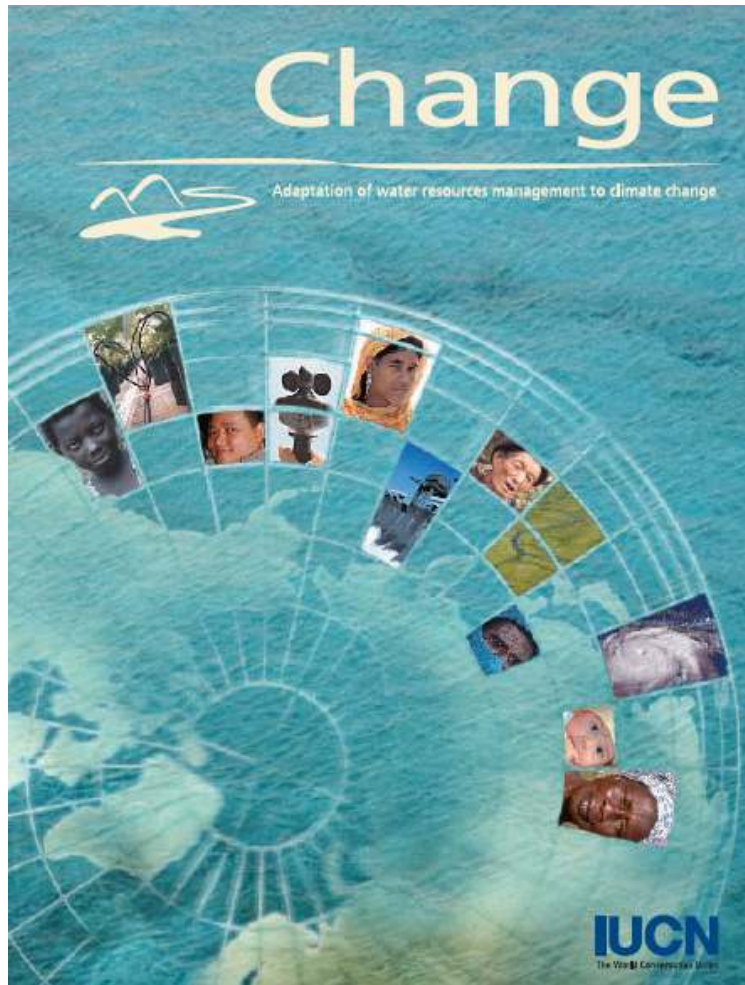
ecosystem approach implementation



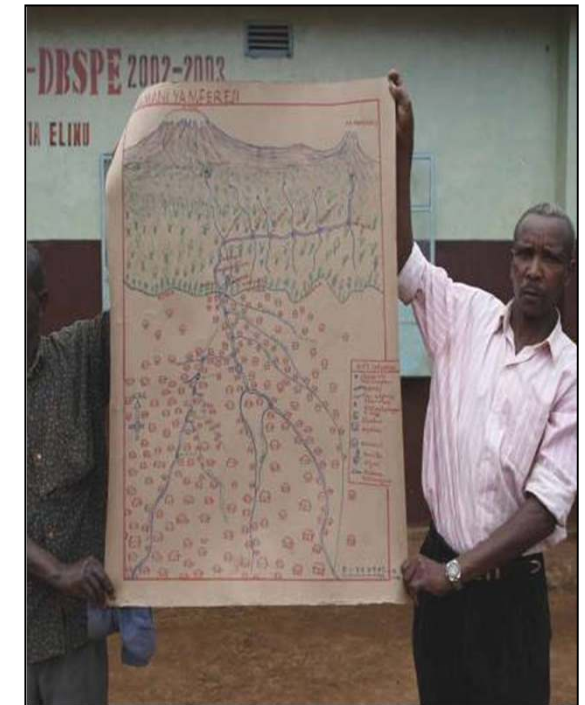
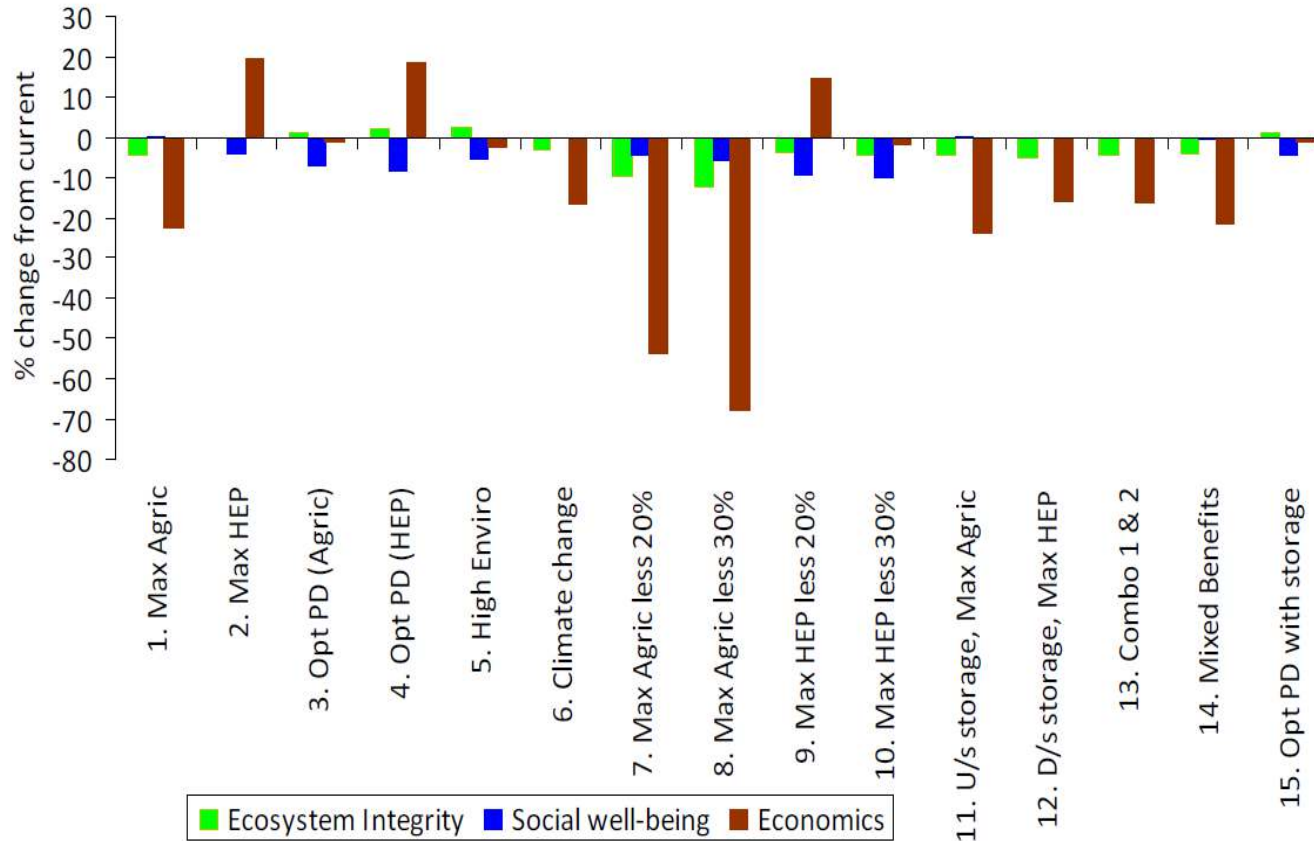
Empowerment enables participation
and building consensus legitimates action
by actors



IUCN & Ecosystem-based Adaptation



Experience from Tanzania



Ecosystems & drought

- Policy messages outlining role of ecosystems in drought management relevant for WFD implementation, e.g. characterisation of water bodies, monitoring with integrated indicators



An exercise to assess research needs and policy choices in areas of drought

science policy brief 1

Water Framework Directive 2000/60/EC:
Characterisation of water bodies and of the analysis
of pressures and impacts (Article 5)



Xerochore - An exercise to assess research needs and policy choices in areas of drought

Assessment of research needs and policy choices in the area of drought. Review of the state-of-the-art and identification of research gaps in the natural system, impact assessment, policy-making and integrated water resources management with assessment of the possible socio-economic and environmental impacts of droughts and guidance on appropriate management responses.

Policy focus

Contribution to the understanding of drought and the natural system (climate and hydrology) and how it impacts the characterisation of water bodies and pressures, including socio-economic impacts and related drought management options, environmental impacts on water bodies, freshwater habitats and direct and indirect ecosystem services.

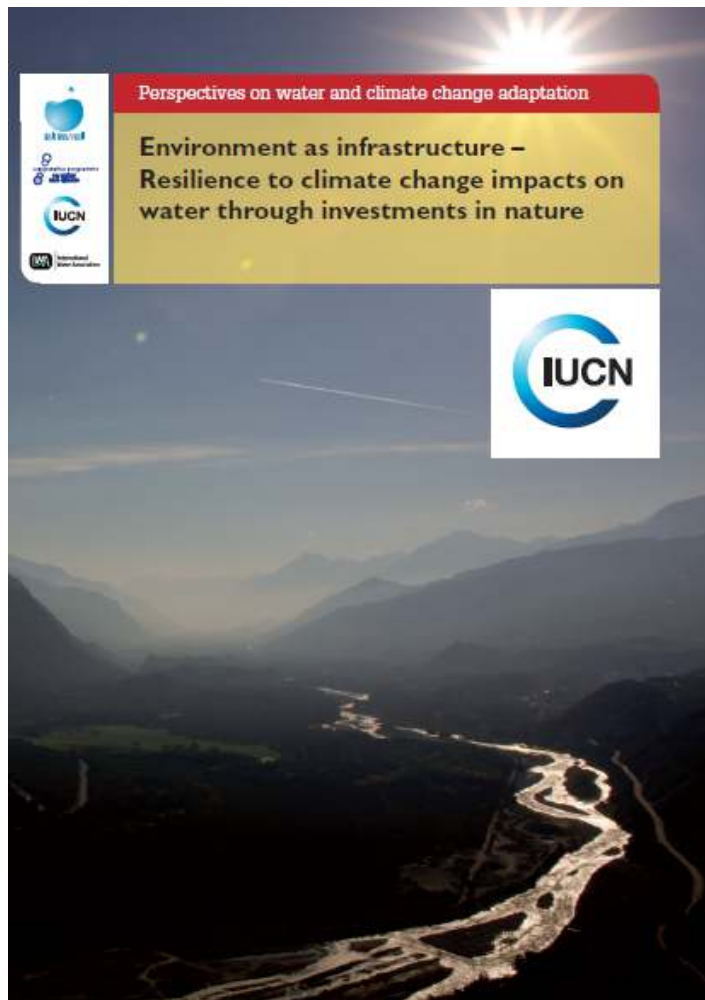
Purpose of this science-policy brief

The 6-year River Basin management cycle requires that the characterisation of water bodies is reviewed regularly. For drought, the following issues need to be considered:

- "Local water bodies" should not be considered as independent systems and their characterisation may be subject to change e.g. due to possible drought damage and the water bodies' ability of to recover. Droughts are large-scale phenomena, of over-national and over-catchment nature, with their origin in the oceans and associated large-scale climate drivers.
- Changes in land use (e.g. deforestation) can have devastating effects on ecosystems but are not considered in characterisations. The characteristics of the land surface (e.g. soil moisture, snow-cover, forest cover, land use) have a considerable influence on the system's reactions to weather and climate.
- A scientific basis for "land-use measures" is required, and drought risk should be taken into account in system knowledge. Land use has been determined, through the years, on a "political" basis (and established interests), and is not based on (larger) system characteristics/knowledge.
- Measures and investments should take this dynamic (non-stationary) nature of the natural system into account, including trends in its behaviour/characteristics. Up to now, the characterisation of water bodies has been "stationary", whereas weather extremes and climate change are of a highly dynamic nature.

The Xerochore project contributes to a better characterisation of the water bodies and

Ecosystems, governance & resilience



1. Diversity

- economy
- livelihoods
- nature & services

2. Sustainable Infrastructure & Technologies

- engineering responses
- natural infrastructure
- sustainable & adaptable mgt

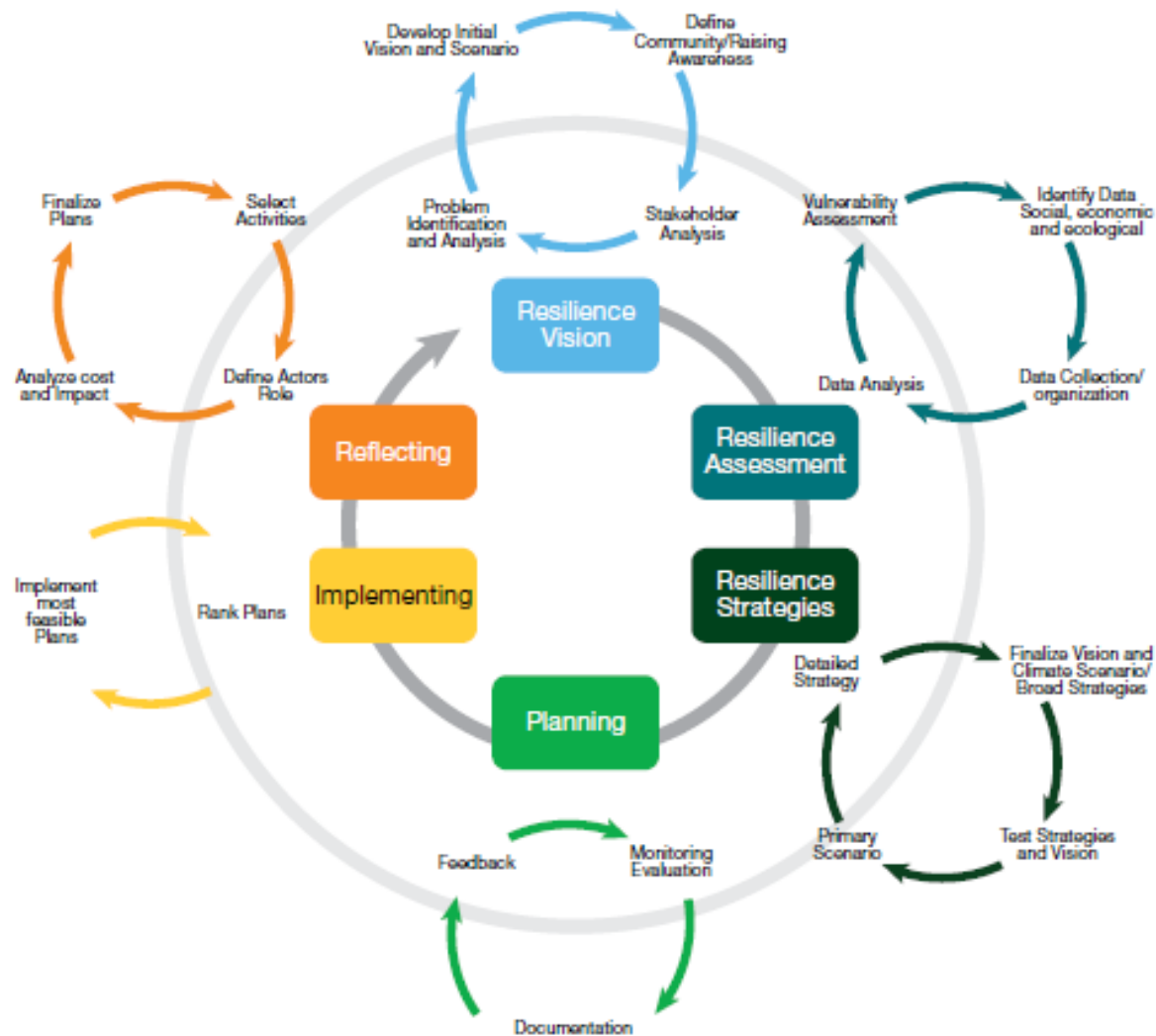
3. Self-Organisation

- participatory governance
- empowerment
- adaptive institutions

4. Learning

- knowledge & skills
- climate information
- new adaptive strategies

The SEARCH Project: Participatory Planning



A Guiding Toolkit for Increasing Climate Change Resilience



Example from Palestine



- Artificial (managed) groundwater recharge

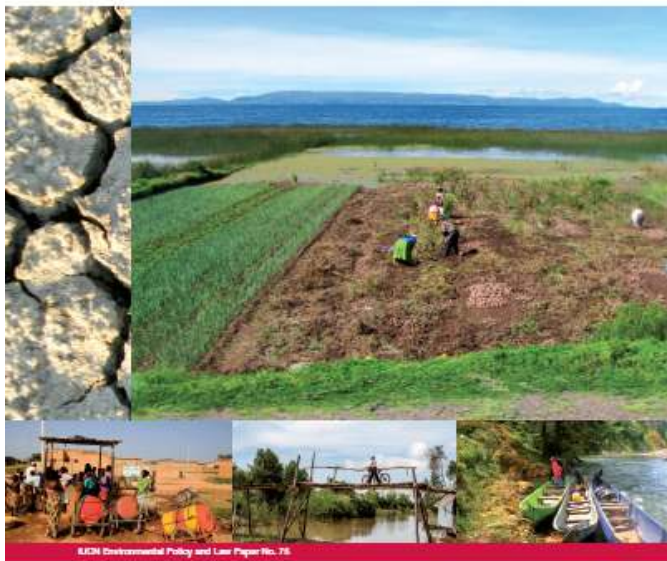
Climate change impacts, ecosystem services & better water management



Transboundary Water Governance

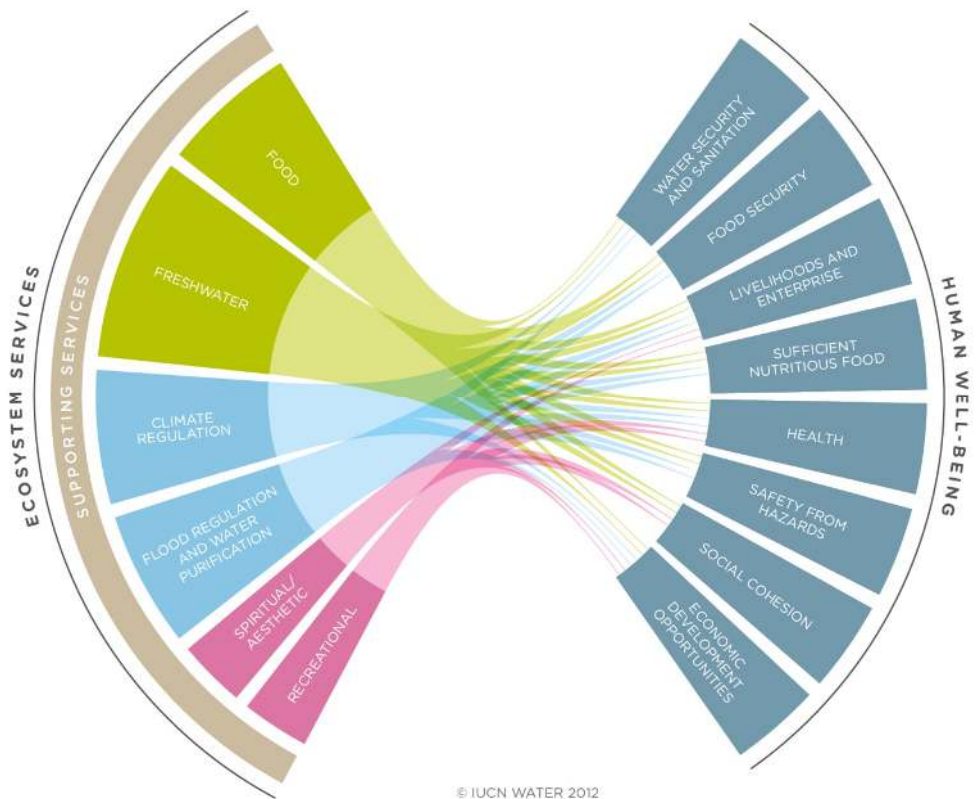
Adaptation to Climate Change

Juan Carlos Sanchez and Joshua Roberts (Eds.)



IUCN Environmental Policy and Law Paper No. 76

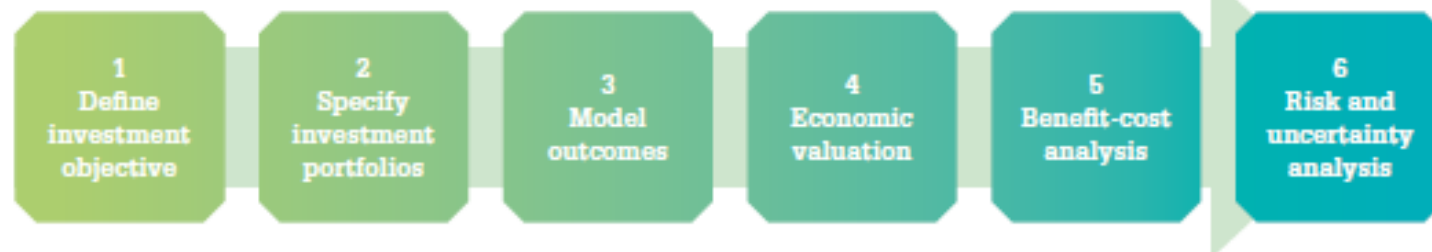
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World Conservation Union
Based on a publication in the IUCN Handbook



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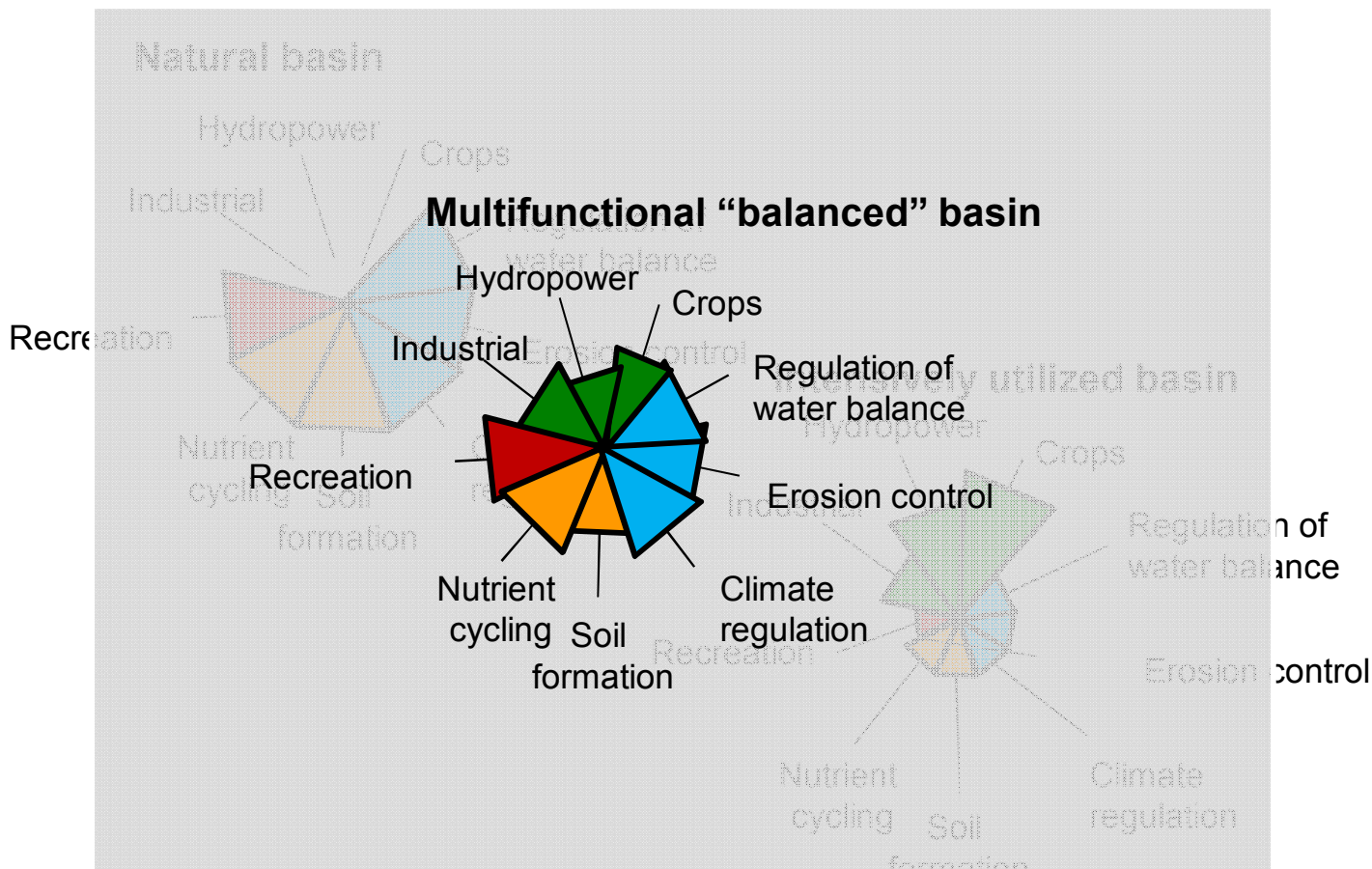


Costing, trade-offs & optimisation





‘WISE-UP to climate’



Conclusions

- Make ecosystems part of the solution
- Foster participation in decision-making
- Connect multiple scales through dialogue
- Promote learning for upscaling

Regional Knowledge Network on Water

- Strengthening the application of systematic approaches to water resources management
- 5 countries
(Lebanon, Jordan, Palestine, Morocco and Egypt)
- 4 themes
 - Water Governance
(conventional and non-conventional resources)
 - Climate Change
 - Water, Food and Energy
 - Innovative & Sustainable Technologies



Thank you for your kind attention

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Resources

- <http://www.iucn.org/about/work/programmes/water/resources/toolkits/>
- http://www.iucn.org/about/union/secretariat/offices/rowa/iucnwame_ourwork/iucnrowa_cc/search_2/
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