



# Factors for success and failure in Integrated Water Resources Management

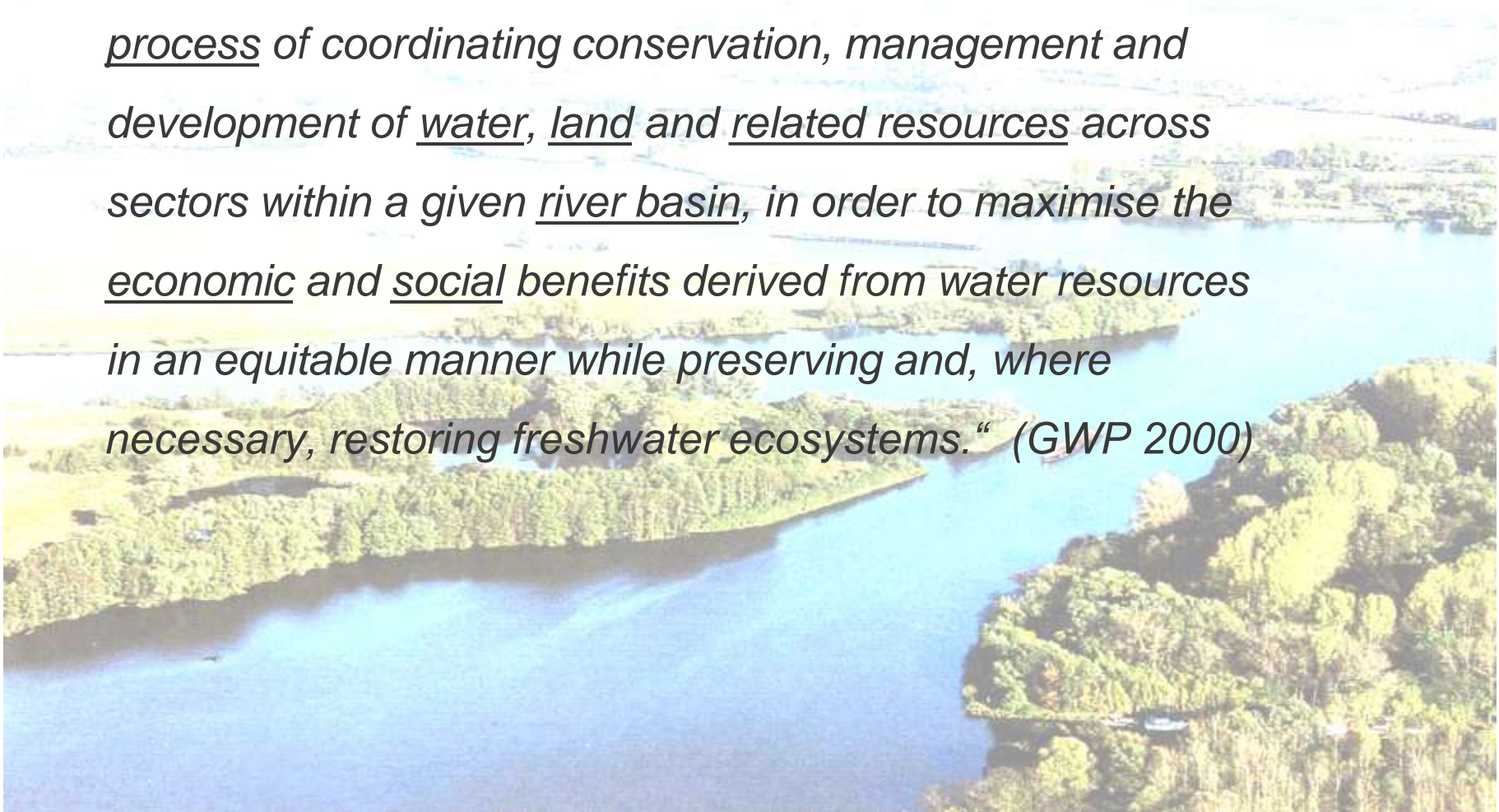
Mariele Evers (Ph.D., Professor)

Leonie Lange

University of Wuppertal, Germany

# Definition IWRM

- *Integrated water resources management (IWRM) is the process of coordinating conservation, management and development of water, land and related resources across sectors within a given river basin, in order to maximise the economic and social benefits derived from water resources in an equitable manner while preserving and, where necessary, restoring freshwater ecosystems.*“ (GWP 2000)



# The problem (?) with IWRM

- Vagueness of the concept
- Not clear: Implementation into practise
- What shall be integrated
- Practicability
- ...

# Our approach

- **Hypotheses:** „Factors for successful Integrated Water Resources Management can be identified”
- **Objective:** Identification of factors for success (and failure)
  - Development of an assessment sheet (guidance)
  - Identification of supporting factors
  - Catalogues of good practise examples (?)
- **Methodology:**
  - Literature study
  - Developing a category system and an assessment sheet
  - Document analysis of case studies along the assessment criteria
  - Refining the assessment sheet

# Basis of the category system

## ■ Dublin Principles

- Fresh water is a finite and vulnerable resource
- Water management should be based on a participatory approach
- Women play a central part in provision, management and safeguarding
- Water has an economic value in all its competing uses/ economic good

## ■ 4 Basis principles of IWRM [Neubert/Theesfeld 2000]

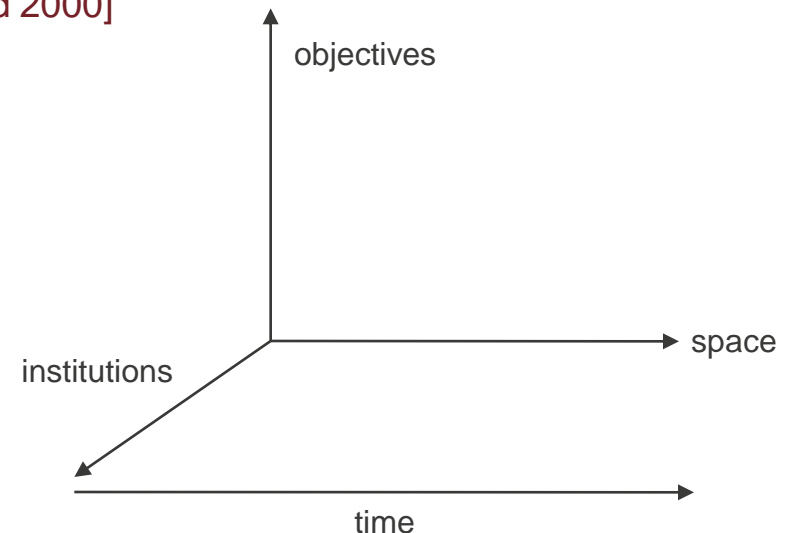
- Orientation along river basins
- Integration of the natural and social system
- Cross-sectoral water management
- Support of participative and cooperative structures

## ■ 3 Implementation elements [GWP 2004]

- Role of Institutions
- Management instruments
- Enabling Environment

## ■ 4 Integration axes [Cardwell et al. 2006]

- Time, Objectives, Institutions, Space



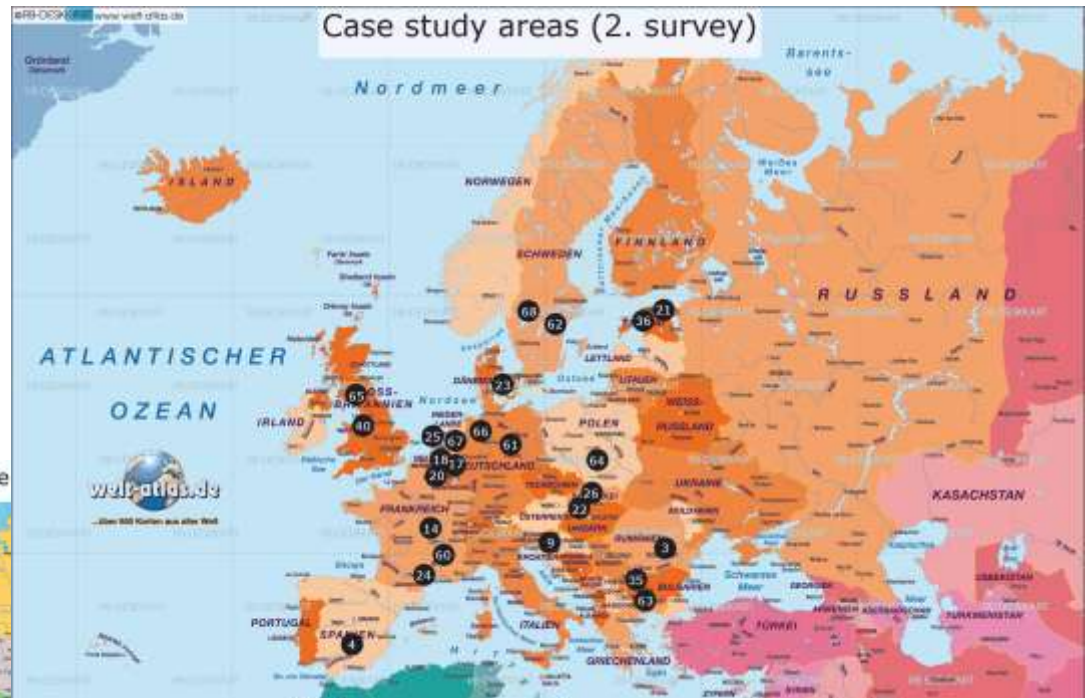
The 4 Integration axes (Cardwell et al. 2006)



# The case studies



Kartengrundlage: [www.welt-atlas.de](http://www.welt-atlas.de)



## Criteria for selection

- EU Research projects, GWP-Toolbox, HELP
- Representativeness
- Quality of documents / language
- 33 case studies, 24 countries

# 6 Assessment categories

- 4 Integration axes
- Culture/Gender
- Enabling Environment
- Management
- Participation/Cooperation
- Knowledge management and Capacity Development

# Example Enabling Environment / Management

- **Enabling environment**
  - Resources and financial structures
  - Legal conditions, boundary conditions
  - Political and government structures (government as an „enabler“)
  - Data (availability, quality)

- **Management**
  - Structures
    - Integration
    - Cross-sectoral cooperation
  - Processes
    - Trigger
    - Flexibility
    - Power relation
  - Institutions
    - Competences
    - Resources
    - Cooperation ability
  - Instruments
    - Socio-technical I.
    - Planning I.
    - other I.

<b>VI Management</b> <b>1) Structures</b> a) Cross-sectoral cooperation  <b>2) Institutions</b> a) Competences b) Resources c) Ability to cooperate
<b>3) Processes</b> a) Trigger b) Flexibility c) Power relationships  <b>4) Instruments</b> a) socio-technical instruments b) Spatial instruments c) Other instruments (e.g. incentives, Insurance concepts etc.)
<b>VII Participation/Cooperation</b> 1) Why? 2) How? 3) Who? 4) Which result?  5) Gender and diversity mainstreaming 6) Transparency and reflection of the participation process and the process results
<b>VIII Knowledge management and capacity building</b> 1) Individuals, groups, institutions 2) Involvement of scientific institutions 3) Knowledge transfer 4) <u>Transdisciplinarity</u> 5) Data and Information Management
<b>IX Unanswered questions</b>  Additional comments:  Lessons learnt:



# Some (general) results

- Importance of legal structures and frameworks
- Cross-sectoral cooperation (horizontal und vertical)
- Readiness /ability for cooperation of the political leadership and other involved parties
- IWRM-Processes are mostly „top-down“ initiated; „bottom-up“ Ex. Loire (F), Varbitsa (BG)
- Responsible process coordinator with decision competences; however: cooperation is crucial
- Integration of scientific institutions is beneficial
- Programmes are supportive (Room for rivers, Miljömål, etc.) → flexible, long-term perspectives, more public integration

# Soome results management instruments

- Manifold management instruments
  - Voluntary agreement (e.g. Denmark)
  - Water User Association (e.g. Rumania, Olifants/SA)
  - Le Plan Loire Grandeur Nature (e.g. Loire/F)
- Use of socio-technical Instruments often supportive, diversity of tools is used [Ex: Nile: Nile Regional DSS, Mesta-Nestos: TRANSCAT, Upper Guadina: DSS, Motala: ICECREAM]
- important: appropriate model, adapted systems and processes
- Integration of different areas (z.B. health, economy)
- Cooperative development together with end users is crucial  
→ transparency of tools and processes

PLAN  
LOIRE  
GRANDEUR NATURE

CONTRAT DE PROJETS INTERRÉGIONAL LOIRE  
2007-2013



Entre l'Etat, les Régions Auvergne, Basse-Normandie, Bourgogne, Centre, Languedoc-Roussillon, Limousin, Pays de la Loire, Poitou-Charentes, Rhône-Alpes, l'Emballissement Publique Loire, et l'Agence de l'Eau Loire-Bretagne

# Some results participation / culture

## ■ Participation plays a big role – divers participation models and elements

- Committees (cooperative); working groups (Murray-Darling Basin/AUS, Loire/F, Eden/UK)
- Stakeholder Meetings; „Varbitsa Council“ (Varbitsa/BG)
- Regional cooperation, expert groups, advisory board, regional conferences, regional Fora (Weser/D)
- Workshops (Chaguana/EQD, Brabantse/NL, Davao/PHI, Pilica/PI)
- Public discussion (Viru-Peipsi/Est)
- Participative Planning (Hertogenbosch/NL)
- WUA (ongoing Form of Participation) (Olifants / SA)
- Seminars (Vänern/SWE)
- Focus Groups and Citizen Juries ((Maas/NL, River Dialogue Project) (Motala/SWE)
- Communication plan, shared decision making, discussions with Key-Stakeholder, Workshop series „Ribble Vision“ (Ribble/UK)

## ■ Culture- und Gender-Aspects are not regarded or not documented

# Concluding remarks

- Assessment sheet worked well to analyse case studies
- Some important factors could be identified (confirm & new aspects)
- Framework could also work for conceptualisation of IWRM projects (and their evaluation)



➔ need for analysis of more case studies and detailed studies (esp. online questionnaire, expert interviews)



Thanks for your attention!

Contact: [mariele.evers@uni-wuppertal.de](mailto:mariele.evers@uni-wuppertal.de)

From 15. Dec. 2012: [mariele.evers@uni-bonn.de](mailto:mariele.evers@uni-bonn.de)

# Literature

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