



## **IWRM and the Water, Energy and Climate Nexus**

Nathan Cammerman

Institute for Social Science Research,  
University of Queensland, Australia

# Integrated Water Resource Management

“a process which promotes the **co-ordinated** development and management of water, land and related resources in order to maximise the resultant economic and social welfare in an equitable manner without compromising the sustainability of vital ecosystems”

Global Water Partnership (2000)

# Co-ordination and Integration

**Co-ordination** is:

*“the development of ideas about joint and holistic working, joint information systems, dialogue between agencies, processes of planning and making decisions”* (Perri 6, 2005).

**Integration** is:

*“the actual execution or implementation of the products of co-ordination through the development of common organisational structures and merged professional practices and interventions”* (Perri 6, 2005).

# The IWRM Framework

Ecological sustainability

Enabling environment

Management instruments

- Allocation
- Regulations
- Economic tools
- ...

- Policies
- Legislation
- Fora and mechanisms for participation
- International cooperation
- ...

Institutional roles

- Level of action
- Management boundaries
- Capacity building
- ...

Economic efficiency

Social equity

# ENABLING ENVIRONMENT

- Special task forces and joint committees.
- Use of strategic planning/goal setting to determine priorities.
- Creating a common culture geared toward the sustainable management of resources.
- Appropriate conflict resolution mechanisms.

# Institutional Roles

- Permanent cross-functional teams.
- Joint planning and budgeting for water, energy and climate scenarios.
- Capacity building.
- Incentivise co-ordination, integration and collaboration.
- Risk identification and sharing.

# Management Instruments

- Vulnerability assessments associated with water, energy and climate linkages.
- Standards and guidelines.
- Joint modelling.

# Key Messages

- Co-ordination comes before integration.
- IWRM is an appropriate framework to manage water and energy interdependencies in a variable climate scenario.
- The enabling environment, institutional roles and management instruments must be strengthened concurrently.



# Acknowledgements



Professor Brian  
Head



Dr Bruce Hooper



Dr Peter Oliver and Dr  
Mark Pascoe

**THANK YOU!**