



**2nd Asian Irrigation Forum**  
**Securing Water and Food for the Future**

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# **Securing Water and Food for the Future, Role of ICID**

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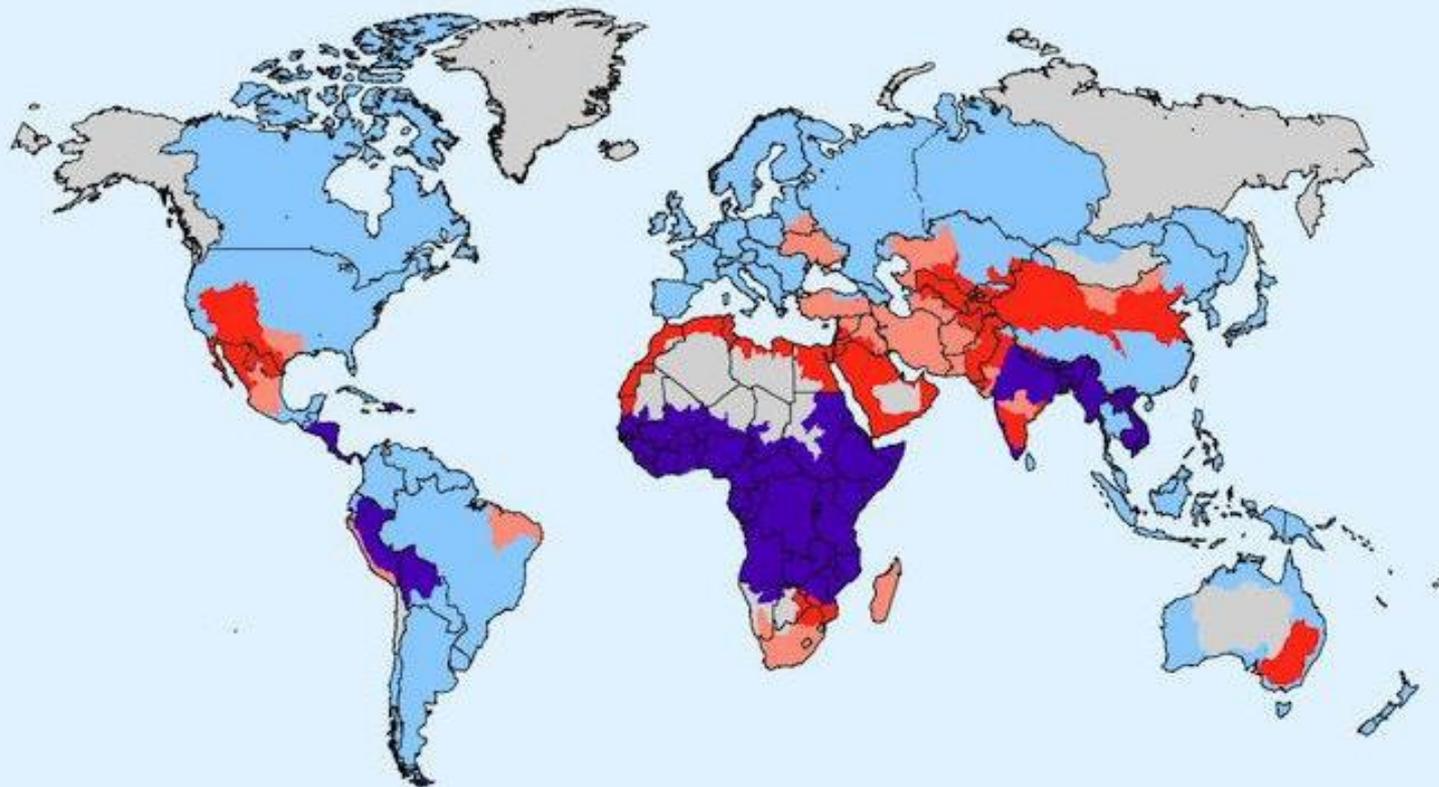
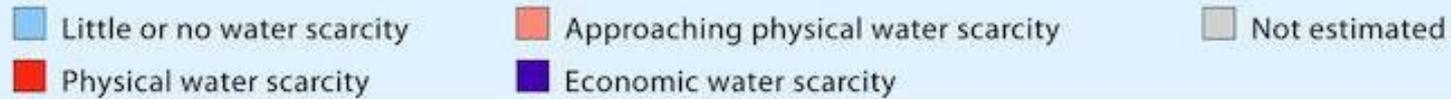
**Opening Session-20 January 2016**



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# Global Water Scarcity

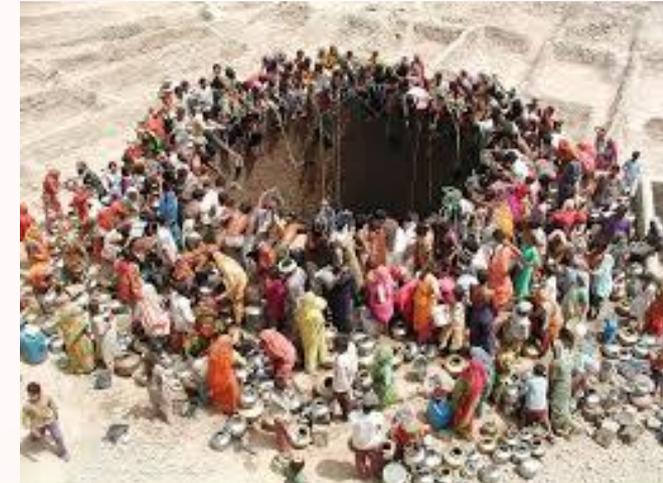
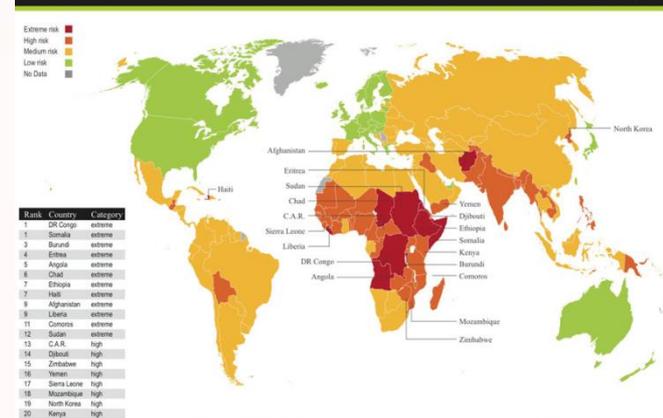


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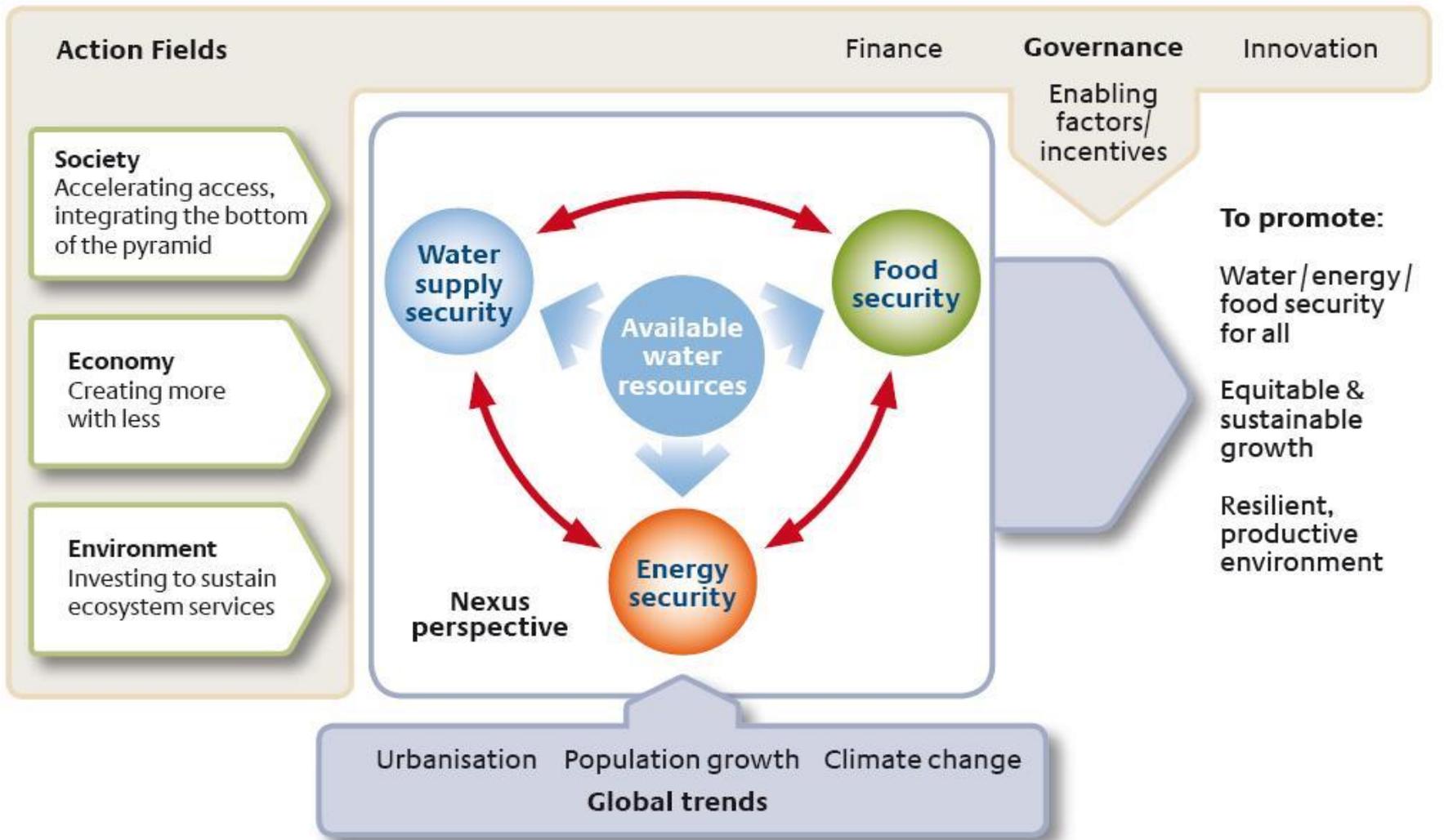
# Background

- Global Population
  - Present : 7.3 billion - 2050 : 9.1 billion
- By 2050 Global water demand to increase by 55%
- By 2050 agricultural production to be increased by an estimated **60 per cent globally** and by **100 per cent in developing countries**
- Higher yields are possible with irrigated agriculture as compared to rainfed agriculture
  - irrigated agriculture producing 40% of food supply from 20% of the irrigated land

Food Security Risk Index 2011



# Water Food Energy Nexus



# Challenges for sustainable production

- 80-90% of the increase to come from already cultivated lands
- diminishing freshwater supplies for agriculture
- Aging irrigation infrastructures
- Weak institutions and poor water governance
- Climate variability and change affecting agricultural production
- Lack of institutional and individual capacity
- How to reduce adverse environmental impacts

Effects of Climate Change on Global Food Production



Projected Maize Yield Change in %  
1970-2000 Baseline to 2050, SRES A1F Scenario

***The Goal is to grow more  
with less, i.e. **sustainable  
agricultural intensification*****

# Possible options

- Sustainable development of irrigated agriculture lies around
  - Modernization and revitalization of irrigation systems and associated services
  - Adoption of climate smart agriculture
  - Improving water and land productivity supported by financial mechanisms
  - Reform of management institutions



# Possible options

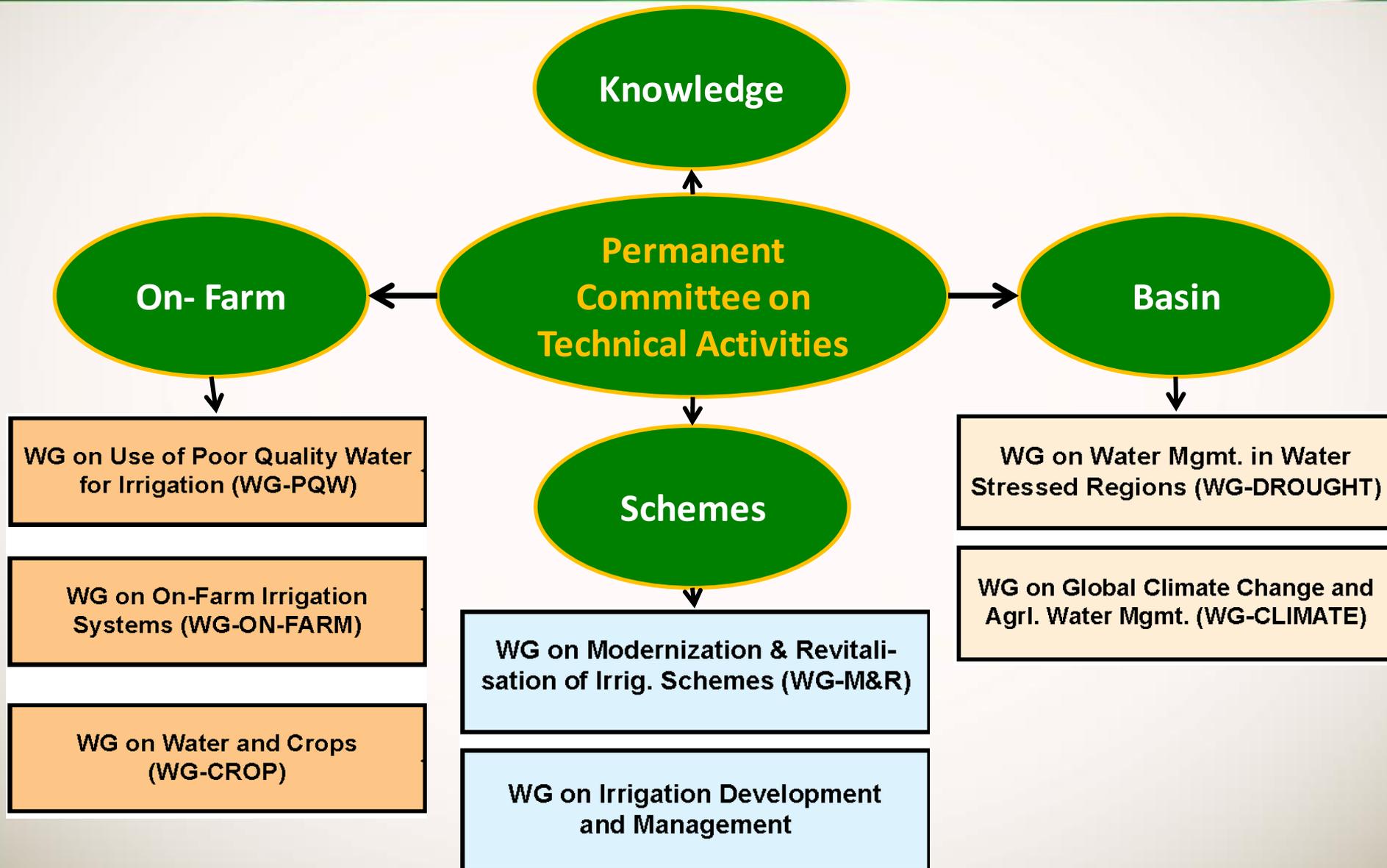
- Adoption of efficient water management techniques including recycle and reuse of waste water
- Use of modern technologies
- Increasing awareness about water scarcity
- Capacity development of service providers and farmers etc.



***ICID is playing a significant role in the field of sustainable agriculture water management for water and food secure future***



# Technical Working Groups (Thematic areas)



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# **ICID Initiatives and Programme towards Sustainable Water and Food Secured Future**

# Vision and Mission

## ➤ Proposed Vision

Water secure world free of poverty and hunger through sustainable rural development

## ➤ Proposed Mission

Working together towards sustainable agriculture water management through inter-disciplinary approaches to economically viable, socially acceptable and environmentally sound irrigation, drainage and flood management

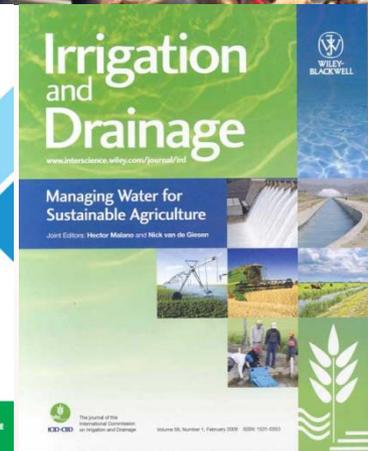


# Exchange of Knowledge & Information



## Exchange of information through

- Annual meetings
- Journal on Irrigation and Drainage,
- Guidance material
- Triennially World Irrigation and Drainage Congresses
- Annually Regional Conferences
- Triennially World Irrigation Forum

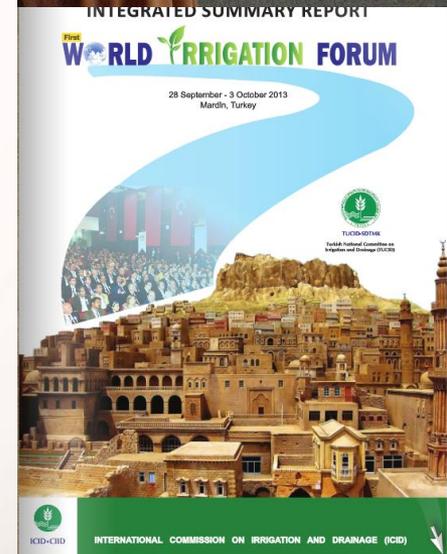


# World Irrigation Forum



## ➤ Objective

- To bring together representatives of all stakeholders involved in the field of Agriculture Water Management (AWM) to discuss and address the issues of growing food security concerns, modernization of irrigation services, AWM, etc.
- **First WIF** was organised at Mardin, Turkey from 29 September to 01 October 2013
- **Second WIF** being organised at Chiang Mai, Thailand from 6 – 12 November 2016
- **Theme-** Water Management in a Changing World: Role of Irrigation for Sustainable Food Production



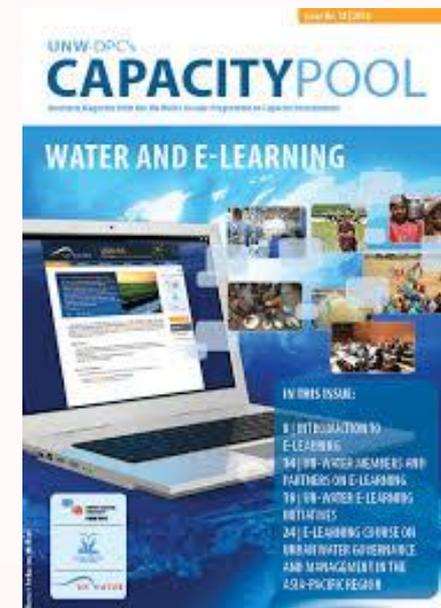
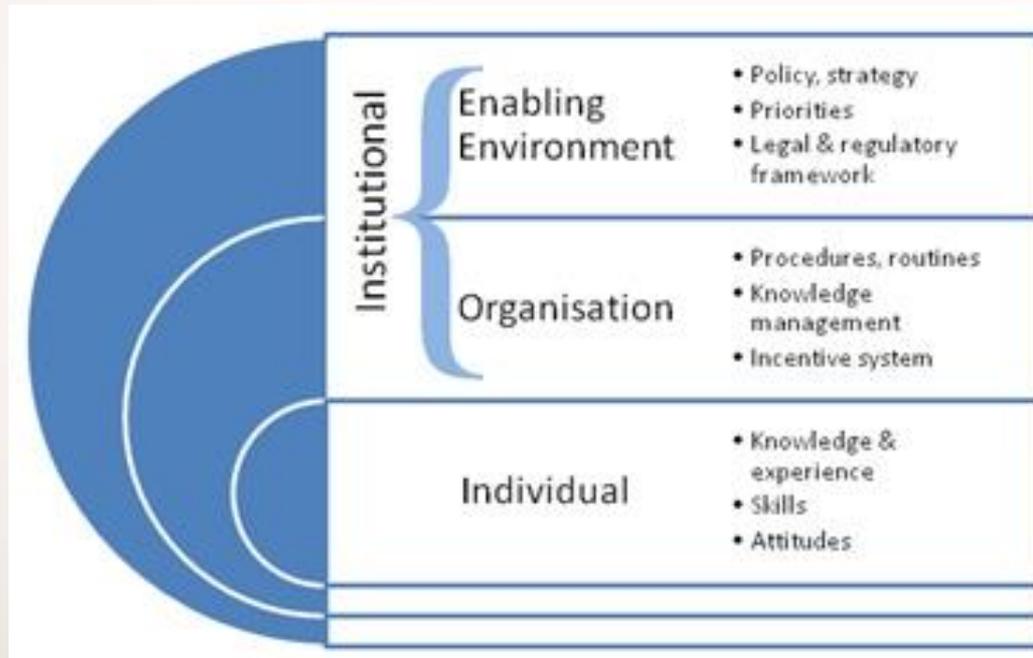
# WIF Stakeholders

- Policy makers
- Farmers' Associations
- Scientists from Agriculture organizations
- Extension services providers
- Financial institutions
- Private sector:
  - Manufacturers
  - Consultancy services
  - Contractors
  - Other service providers
- International organisations with programmes in the field of Irrigation and Drainage
- Professional Water Associations: ICOLD, IHA, IWRA, IAHR, IAHS, IWA, IAH
- Universities and research institutes



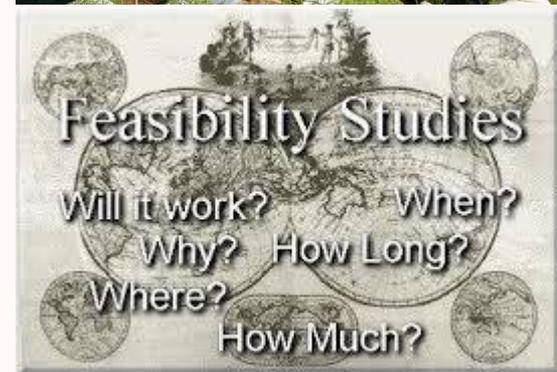
# TSU- Objective

“Undertake **capacity development activities** in the field of agriculture water management in support of rural development”.



# TSU- Objective

- To liaise in **developing a knowledge base in AWM** with the help of ICID working groups, partner institutions and member countries
- To **support the member countries** (on request) in
  - general assessment of gaps in AWM capacities within the countries and suggest possible solutions
  - developing feasibility reports for small and medium irrigation, drainage and flood management proposal
  - training assessment needs, and
  - undertaking capacity development programmes



***Thank You***  
***For***  
***Your Attention***