Securing Water and Food for the Future, Role of ICID

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Global Water Scarcity

- Little or no water scarcity
- Approaching physical water scarcity
- Physical water scarcity
- Economic water scarcity
- Not estimated

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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
Water Food Energy Nexus

**Action Fields**

- **Society**
  - Accelerating access, integrating the bottom of the pyramid

- **Economy**
  - Creating more with less

- **Environment**
  - Investing to sustain ecosystem services

**Available water resources**

**Energy security**

**Food security**

**Nexus perspective**

**To promote:**

- Water/energy/food security for all
- Equitable & sustainable growth
- Resilient, productive environment

**Global trends**

- Urbanisation
- Population growth
- Climate change
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

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
ICID Membership network spreads over 78 countries covering about 90% of the world’s irrigated area.
Technical Working Groups
(Thematic areas)

- Knowledge
  - Permanent Committee on Technical Activities
  - Schemes
    - On-Farm
      - WG on Use of Poor Quality Water for Irrigation (WG-PQW)
      - WG on On-Farm Irrigation Systems (WG-ON-FARM)
      - WG on Water and Crops (WG-CROP)
    - WG on Modernization & Revitalisation of Irrig. Schemes (WG-M&R)
  - Basin
    - WG on Water Mgmt. in Water Stressed Regions (WG-DROUGHT)
    - WG on Global Climate Change and Agri. Water Mgmt. (WG-CLIMATE)

On-Farm
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
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