Asian Irrigation Forum
Key Messages and Outcomes

Dr. Akhtar Ali
Principal Water Resources Specialist
Asian Development Bank

Water Security and State of Irrigation in Asia and Pacific

- Asia harvests 78% of world’s irrigated crops area;
- Agriculture uses 80% of the water and 60% of region is water insecure (AWDO, 2016);
- By 2050,
  - 60% of the Asia-Pacific’s population will be living in cities;
  - 88% of the population in Asia will be living with high water scarcity or complexity;
  - global water demand will increase by about 55% (Asia is not an exception);
- By 2030, water uses will increase in a range: industry 65%, domestic 30%, and agriculture by 5% ; and
- Agriculture will need to produce 100% more food in developing countries (60% increase globally).
**Water Security and State of Irrigation in Asia and Pacific**

- Irrigation can increase crop yield between 100% and 400%;
- Irrigation allows higher benefits to farmer growing high-value cash crops;
- Half to two-thirds of future gains in crop production are expected to come from irrigated land; and
- Water security is linked to most of the 17 SDGs including hunger, poverty eradication, sustained and inclusive economic growth, terrestrial ecosystem and water.

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**Water Security and State of Irrigation in Asia and Pacific**

- Irrigation systems are outdated and need a complete review;
- Water accounting is missing and fragmented approach dominates;
- Water policies are complex and conflicting and negatively impact framers’ decision on cropping patterns and investment;
- Water governance is poor, investments are low and institutional and policy reforms are slow;
- Farmers’ and irrigation managers leave agriculture and skill crisis is emerging;
- Climate change impacts and natural resource degradation necessitates more sustainable and resilient agriculture; and
- $6.7 trillion requires clearing the large backlog for replacement and rehabilitation of aging structure (ADB’s estimates).

- Water management must intensify.
AIF’s Identified Key Issues and Feasible Options

• Well-understood issues are:
  – Increasing water scarcity, competing water demands by sectors and users and climate change; and
  – Inadequate maintenance, poor performance and low service fee recovery from irrigation.

• Feasible solutions include:
  – improved management approaches, greater system control, adoption of technologies for improved productivity and capacity;

• The key questions are:
  – How do we upscale and gain wider adoption of proven practices among smallholder farmers? and
  – How do we accelerate creating effective and responsive institutions with very slow modernization?

Key AIF2’s Messages
1. Irrigation Modernization

• Irrigation faces inherited poor management, poor service delivery and low cost recovery;
• Irrigation modernization is needed to:
  – improve efficiency and effectiveness; and
  – fulfil the needs of competing water demands, crop diversification and climate variability
• Accelerating and scaling up the adoption of proven technology is needed;
• Transparent water measurement and balanced water allocation for improved productivity and accountability is needed;
• Performance-based services, outsourcing of services, rationalized O&M cost and transparent spending may offer solutions.
Key AIF2’s Messages

2. Innovation in Water Productivity

- No option but to improve water productivity in agriculture;
- Increased crop production should be linked with WP (Not solely with yield);
- Managing water as an economic good can promote efficiency in irrigation, boost agricultural productivity and meet the region’s food demand; and
- Some proven practices and technology includes laser land leveling, use of RS for water accounting and productivity, solar pumps for drip irrigation, drone technology and canal automation.

Key AIF2’s Messages

3. Irrigation Financing

- Water crisis is real and needs urgent response to start ramping up investment in irrigation;
- Break build-neglect-rehabilitate-neglect scenario;
- Rethink how to effectively finance O&M;
- Perform asset inventory and build asset management into projects;
- Consider options for private sector participation together with performance-based contract.
Key AIF2’s Messages

4. Water Governance

- Good governance is must for good performance of irrigation sector;
- Increase focus on performance-based management from institutional level to water users level;
- Provide women with equal access to resource and knowledge;
- Modernize institutions and set performance benchmarking; and
- Improve groundwater governance.

AIF’s Recommendations – 1

- At the national level focus on policy, legal frameworks, and strategy:
  - Formulate a long-term vision for the irrigation sector and strategy;
  - Formulate risk management strategies for national food security under water-scarcity;
  - Rationalize O&M costs and find cost recovery mechanisms;
  - Engage politicians in water dialogue;
  - Transform irrigation into responsive institutions;
  - Assess the economic and financial consequences of continued underfunding of O&M to the nation and farming communities;
  - Formulate policies and legislation to enhance women’s role in agriculture;
  - Support universities and training institutes in irrigation management;
AIF’s Recommendations – 2

• At Basin Level focus on water resources planning and management:
  – Adopt recognized and available procedures for water accounting and measurement of water productivity to facilitate sustainable planning and management of water resources;
  – Separate water resources management from irrigation service delivery to ensure fair and equitable allocation of water to all uses and users;
  – Conduct groundwater mapping surveys and modeling to better understand current uses and projections;

AIF’s Recommendations – 3

• At the scheme level focus on water service delivery and production:
  – Focus on improving scheme performance through performance-based management,
  – Adopt scheme management processes and best practices;
  – Form partnerships between the irrigation authorities and private sector to manage schemes;
  – Provide improved water control and measurement systems with long-term technical support to reduce the risk of post-project failure;
  – Plan, allocate, and schedule irrigation water for conjunctive use of surface and ground waters;
  – Demonstrate value addition at the field and crop level through crop selection and improved seed and agronomic practices; and
  – Support farmers in storing, trading, and marketing their products.
The report can be downloaded from ADB.org within the week.

https://www.adb.org/publications/second-asian-irrigation-forum-key-messages-outcomes