



IWMI's experience and activities in institutional aspects of water management

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IWMI
International Water Management Institute

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INTERNATIONAL WATER MANAGEMENT INSTITUTE

IWMI is a non-profit, scientific research organization focusing on the sustainable use of water and land resources in developing countries

Vision

A water-secure world

Mission

To provide evidence-based solutions to sustainably manage water and land resources for food security, people's livelihoods and the environment

Core values

- Excellence • Objectivity • Integrity • Knowledge sharing • Impact orientation
- Partnerships and teamwork • Respect for diversity

Research Themes

- [Ecosystem Services](#)
- [Governance, Gender and Poverty](#)
- [Resource Recovery, Water Quality and Health](#)
- [Revitalized Irrigation Systems](#)
- [Sustainable Agricultural Water Management](#)
- [Water Availability Risk and Resilience](#)
- [Water Futures](#)



IWMI leads CRP 5: Water, Land & Ecosystems (WLE).
IWMI contributes to CRPs: CCAFS; DS; Humidtropics; AAS; Policies, Institutions and Markets (PIM)



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IWMI'S NETWORK OF OFFICES



IWMI started its activities in Central Asia from 2001 with main focus of research on:



- identifying best practices for water savings
- improving irrigation performance
- improvement of soil productivity
- effective water resource institutions in the region.

Member of Regional Program for Sustainable Agricultural Development in Central Asia and Caucasus

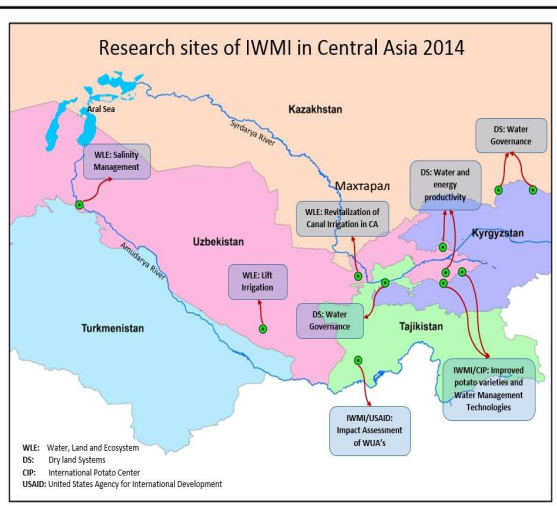


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IWMI AND ITS ACTIVITIES IN CA

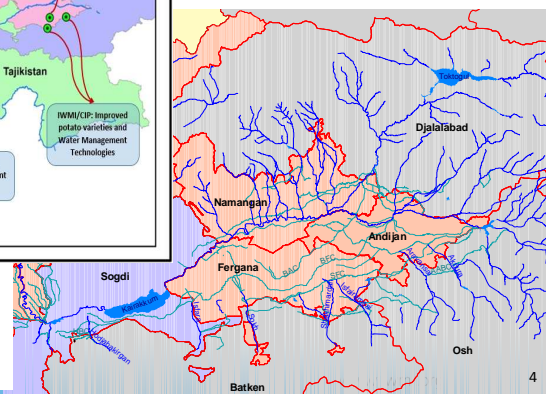


Current Programs/Projects:

- CRP Water , Land & Ecosystems
- CRP Dryland System
- GIZ/BMZ
- USAID Feed the Future
- OPEC

Past Programs/Projects:

- SDC: IWRM-FV (2001-2012)
- SDC: WPI-PL (2008-2012)
- ADB: Bright Spots and others



KEY MESSAGES: IWRM-FV & WPI-PL

Effectiveness of WRM through intro IWRM princ:

- Improvement & reorganization of institutional structures;
- Achievement participatory & demand oriented water allocation;
- Adequate, transparent and equitable manner water distribution;

Improvement of Water productivity through
effective organization of water mgt at plot level

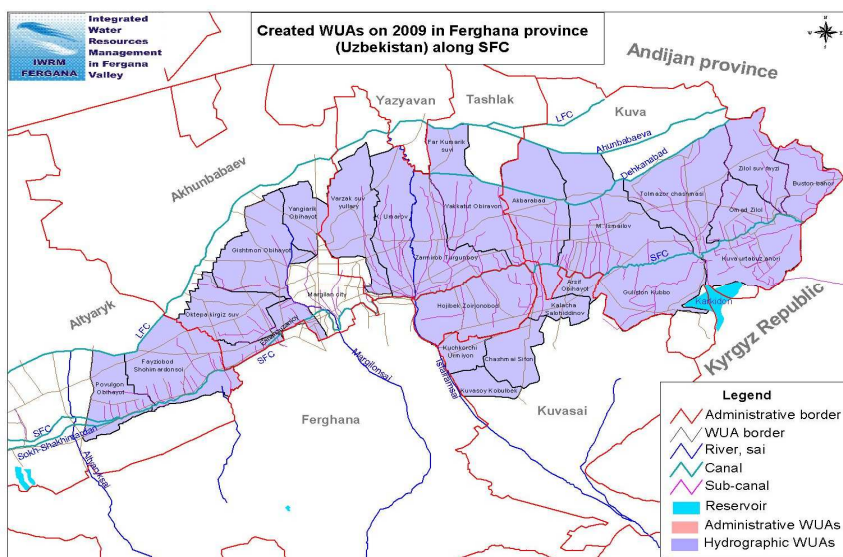
Results:

- ✓ Increase of irrigated agricultural productivity, average 25-30%;
- ✓ Average profitability per ha increased up to 400 \$/ha from 270 in demo plots;
- ✓ Since 2003, approximately 200 mln m³ water were saved.

INTRODUCED KEY IWRM PRINCIPLES

- **Hydrographization** - transfer from administrative-territorial to the hydrographic basin principle of Water Mgt;
- **Public participation** in Water Governance;
- CMO WM taking into account the **interests of all interested sectors** (agriculture, ecology, industry, drinking water supply and etc.);
- Accounting **all types of water sources** in water management;
- Close coordination of water use horizontally - amongst the sectors and vertically - by **hierarchical levels of water use**;
- **Information sharing**, transparency of the water management system;
- **Economic and financial stability.**

Hydrographization of WUAs

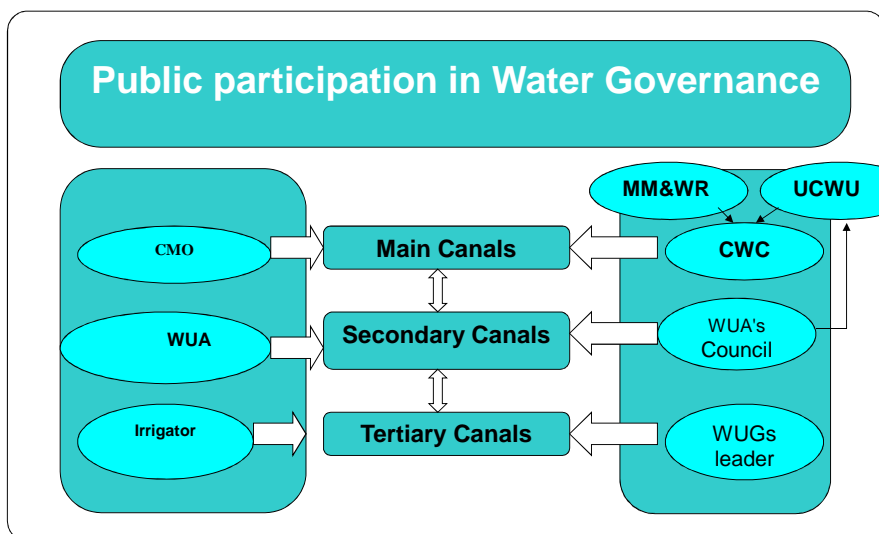


➤ 38 WUAs: coverage: 138 000 ha

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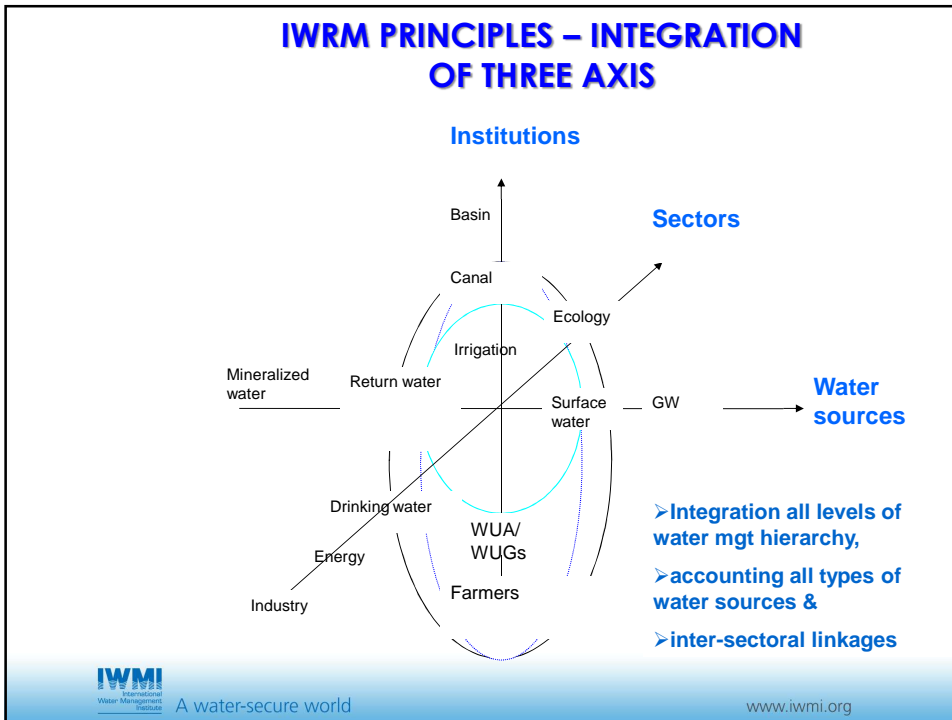
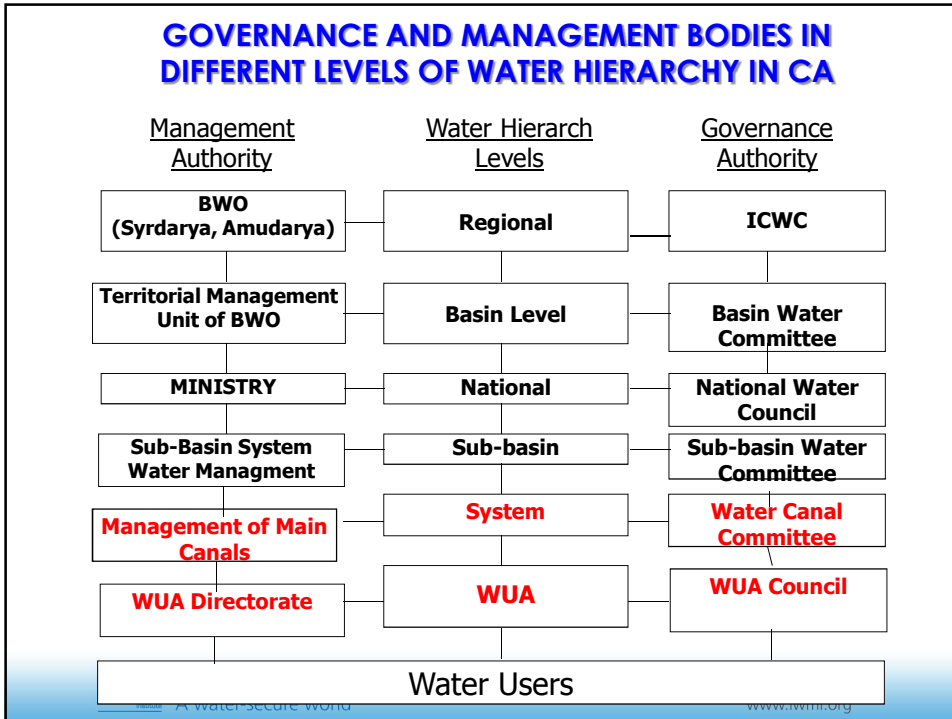


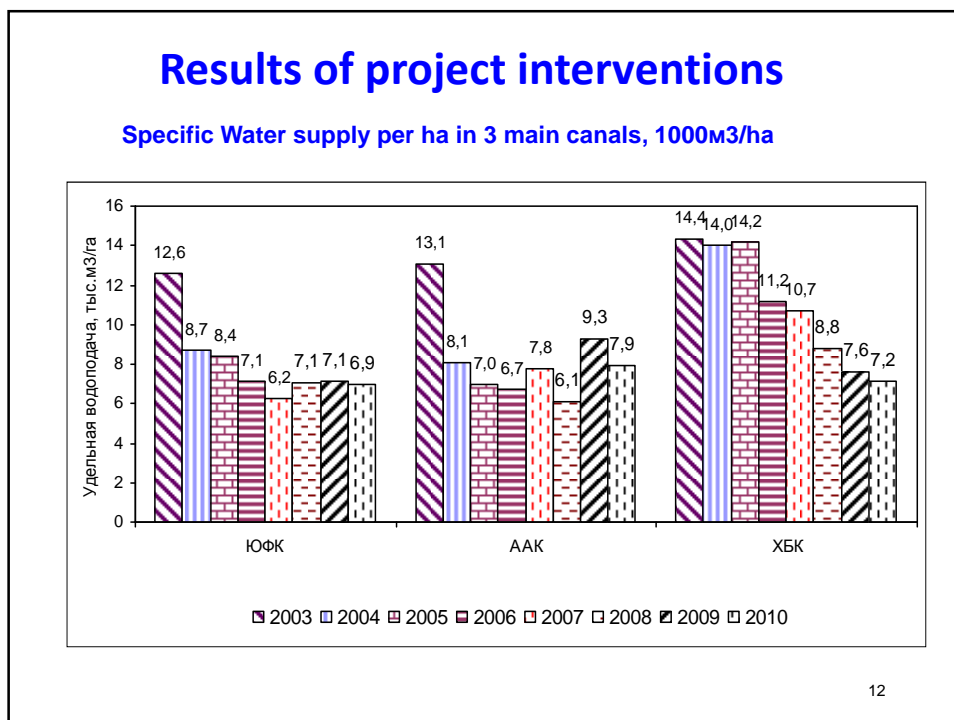
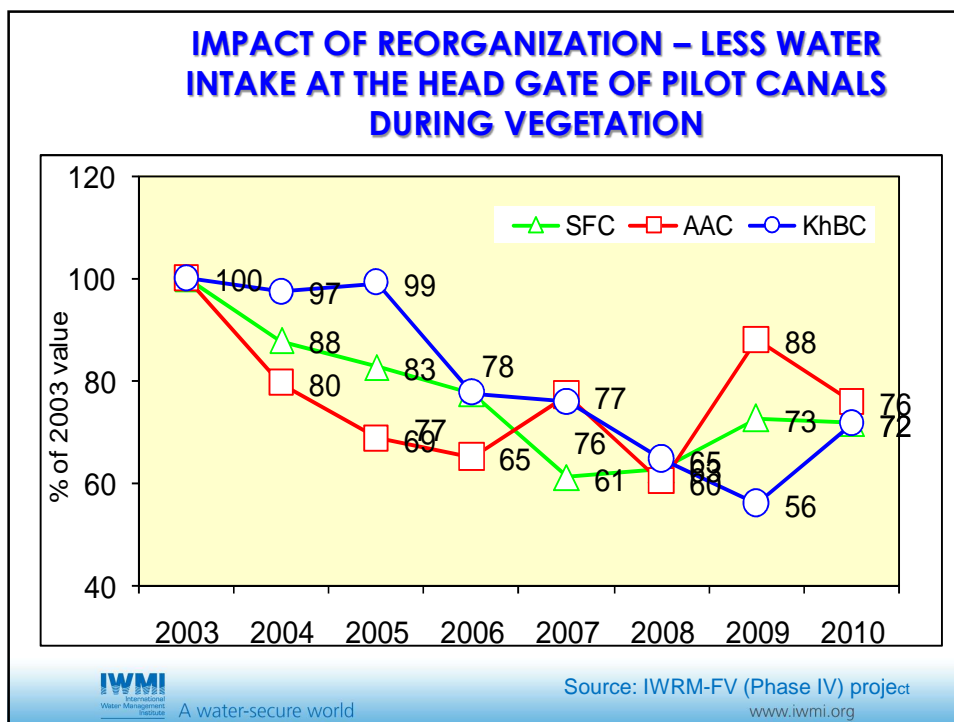
PUBLIC PARTICIPATION



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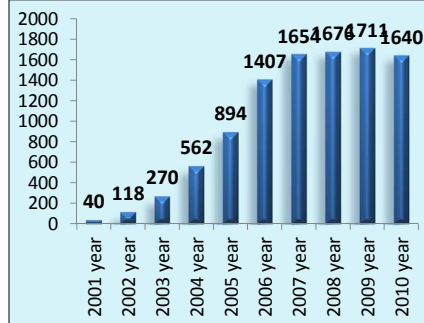




PERSISTENCE PROBLEMS FROM THE FIELD

- ❖ Lack of WUAs ownership by water users;
- ❖ Lack of transparency of water management and trust btw WUA admin and water users;
- ❖ Lack of enforcement mechanisms to follow accepted rules and regulations;
- ❖ Frequent external interference to WUA activities by local state authorities;
- ❖ Unsanctioned withdrawals by upstream &/or elite farmers are even more common;
- ❖ Tail-enders of the canal is not getting water even though they have paid for ISF and head-tail water users don't oblige with irrigation scheduling;
- ❖ No incentives to use rationally water resources;
- ❖ Poor linkage btw water use and governance;
- ❖ Existing enforcement and conflict resolution mechanisms are often unable to handle the disputes;
- ❖ Overall issue of low irrigation service fee (ISF) collection rate.

WUA Tendency in Uzbekistan. Source: MAWR



WUA Legislation in Central Asia

Water Hierarchy	IWRM principles	Uzbekistan: WUA Law (2005), etc	Uzbekistan: WUA Law (2005), etc	Uzbekistan: WUA Law (2005), etc	Uzbekistan: WUA Law (2005), etc
Sub-basin	Hydrographization	+	+	Under process	+
	Public Participation	-	Not impede	Under process	-
	Integration of stakeholders	-	Not impede	Under process	-
Irrigation System	Hydrographization	+	+	Under process	+
	Public Participation	-	Not impede	Under process	-
	Integration of stakeholders	-	Not impede	Under process	-
WUA	Hydrographization	+	+	Under process	+
	Public Participation	+	+	Under process	+
	Integration of stakeholders	+	+	Under process	+

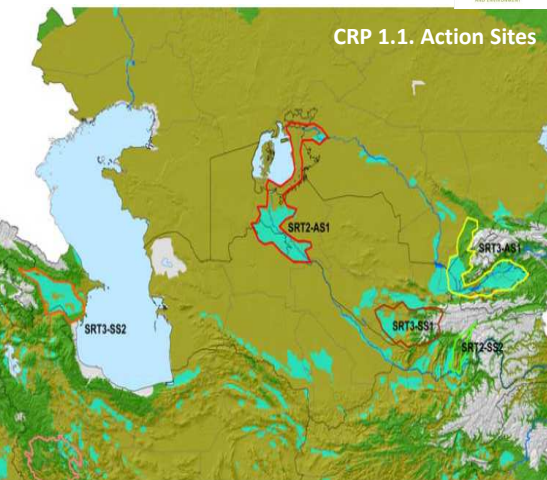


CONSORTIUM RESEARCH PROGRAM 1.1. (CRP 1.1.) DRYLAND SYSTEMS IN CENTRAL ASIA

and other Partners such as



CRP 1.1. aims to **develop technology, policy and institutional innovations** to improve livelihoods, using an integrated systems approach.



- Contribution to:
- IDO 4: "More sustainable & equitable management of land & water resources" and
 - IDO 2: " More stable & higher per capita income for intensifiable households".

Capacity strengthening in the form of joint PhD research btw IWMI, CRP 1.1. and University of Bern: Water Governance: **Comparative Socio-ecological analysis of the water governance through Water User Associations (WUAs)**

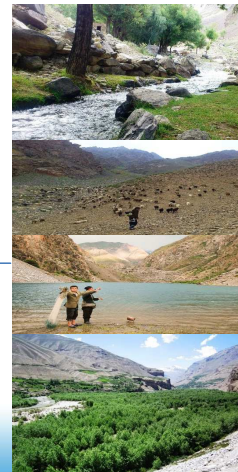
AIM OF RESEARCH

Understand key **potentials and limitations** of WUAs in CA by assessing the role of institutions (formal and informal) and their related socioeconomic and environmental outcomes in view of enhancing collective action aiming at more sustainable water governance of on-farm irrigation water management.

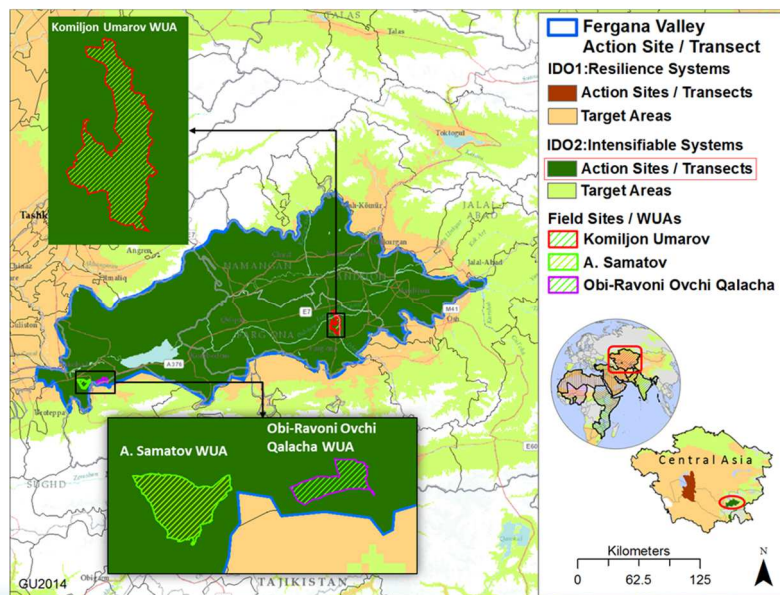


Design principles (DPs) of long - enduring CPR institutions (Ostrom 1990) as the entry point of research

- 1) **Clearly Defined Boundaries**
- 2) **Proportional Equivalence between Benefits and Costs**
- 3) **Collective-Choice Arrangements**
- 4) **Monitoring**
- 5) **Graduated Sanctions**
- 6) **Conflict-Resolution Mechanisms**
- 7) **Minimal Recognition of Rights to Organize**
- 8) **Nested Enterprises**



ACTION SITE: CRP DS



**THANK YOU FOR
YOUR ATTENTION!
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