



Water & Conflict in Central Asia: The Role of International Water Law & Diplomacy

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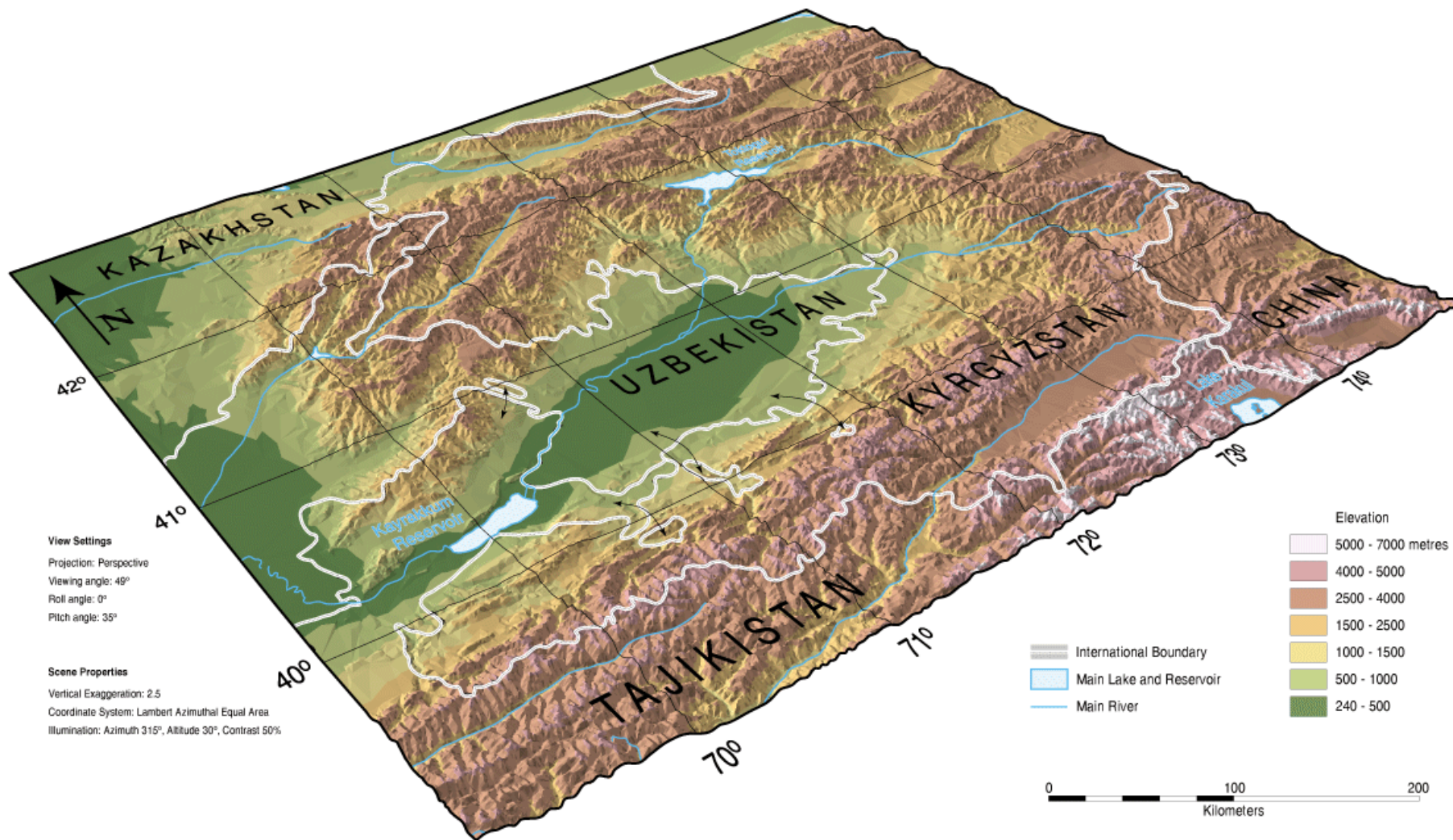
Suffolk University Law School

May 8, 2015



Ferghana Valley
20% population

Three Dimensional View of the Fergana Valley Region (Preliminary Version)



Source: VMap Level 0 (DCW fifth edition), NIMA; ArcWorld, ESRI; Dem (SRTM-30), USGS.

The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations.

Created at UNEP/DEWA/GRID-Geneva; June 2004



Field Research in Kyrgyzstan – Summer 2014

- Interviews
 - Government (nat & local)
 - International organizations
 - Local NGOs
 - Academics
 - Local leaders (aksakals)
 - Water User Association (murob)
 - Local community members
- Met ~ 40 different organizations plus 4 group meetings













Overview

1. Why isn't there greater cooperation over water in Central Asia given the history?
2. To what extent do existing agreements incorporate international water law?
3. What other insights are gained through the Water Diplomacy Framework?









“White Gold”

Cotton mainly grown in downstream countries
(Uzbekistan, Kazakhstan and Turkmenistan)



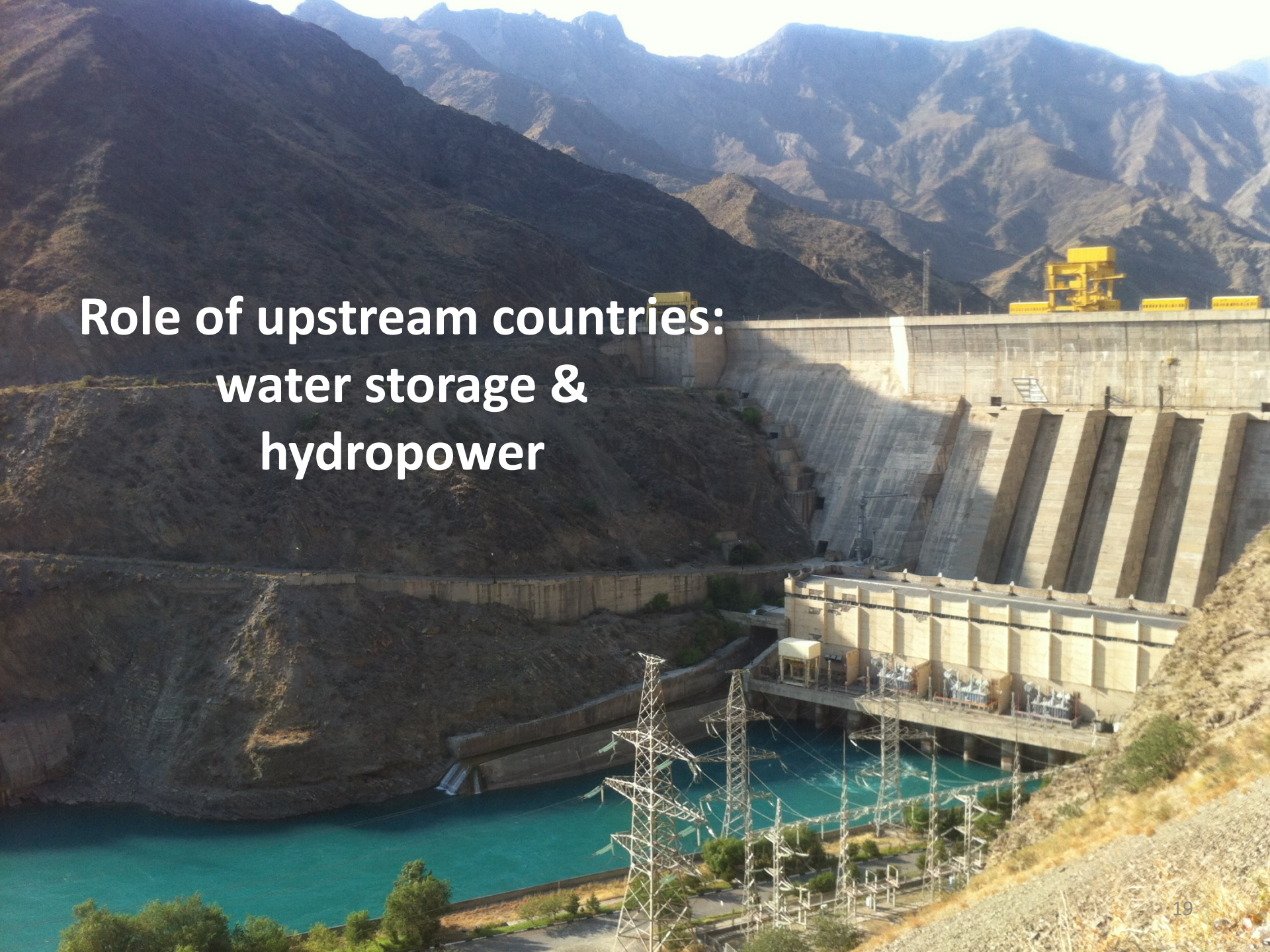
Uzbekistan is the 6th largest cotton producer & 3rd largest exporter

Created Toktogul Reservoir in Kyrgyzstan on Naryn River, which flows to Syr Darya River





Role of upstream countries: water storage & hydropower



Downstream countries provided energy to upstream countries (water-energy nexus)



<http://www.southandcentralasiacomment.org/wp-content/uploads/2011/08/south-and-central-asia-2.gif>



REUTERS

EDITION: U.S.



Uzbek leader sounds warning over Central Asia water disputes

Fri Sep 7, 2012 11:12am EDT

*** Karimov says regional water rows risk military conflict**

* Criticises Tajik, Kyrgyz plans for hydropower dams

* UN, EU urge dialogue, say projects should be assessed

By Raushan Nurshayeva

ASTANA, Sept 7 (Reuters) - A dispute over Central Asian water resources risks provoking military conflict in the former Soviet region, Uzbek President Islam Karimov said on Friday, in a stinging criticism of plans by neighbouring states to dam rivers for hydropower projects.

Uzbekistan, Central Asia's most populous country, depends on the rivers that rise in [Kyrgyzstan](#) and Tajikistan to irrigate farmland. It has long been opposed to its neighbours' plans to revive colossal Soviet-era projects to build dams upstream.

Witnesses to Four Days of Violence in Osh



From June 10 to June 14, deadly clashes between local Uzbeks and Kyrgyz engulfed the cities of Osh and Uzgen, leaving estimates of 2000 or more dead, and more than a half million citizens displaced. The violence occurred almost exactly 20 years after the 1990 riots in the same cities. Unlike twenty years ago, firsthand observers were able to share the events with the world as they occurred with personal accounts, photos, and video. Some of their accounts are found below:

<http://kyrgyzstan.carnegieendowment.org/2010/06/witnesses-to-four-days-of-violence-in-osh/>

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Convention on the Law of the Non-Navigational Uses of International Watercourses

Adopted by UN General Assembly in 1997

Entered into force in 2014

1. Equitable & Reasonable Utilization
2. Appropriate steps to prevent significant harm
3. Protection of Watercourses & Ecosystems
4. Cooperation and information exchange
5. Timely notification, consultation and negotiation
6. Peaceful settlement of disputes

In 1991, Soviet Union dissolved. Central Asian countries agreed to maintain Soviet era water allocations.



1992 Almaty Agreement maintain Soviet era % allocations

	Syr Darya	Amu Darya
Kygryzstan	1.0	0.4
Tajikistan	9.2	13.6
Uzbekistan	51.7	43.0
Turkmenistan	—	43.0
Kazakhstan	38.1	—
Total	100%	100%

Upstream

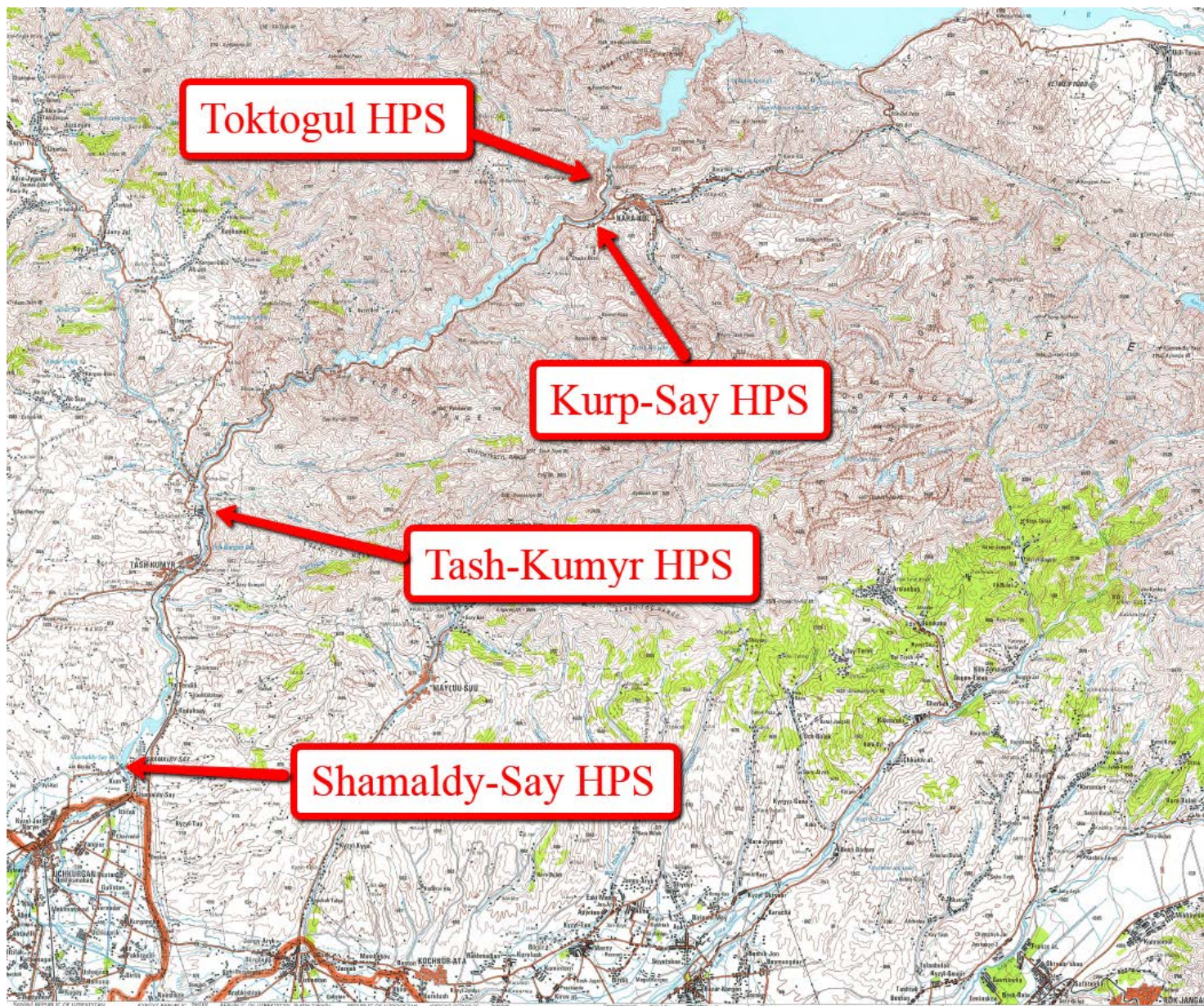
Downstream



**Fuel sold for market prices
Breakdown of Barter Arrangement**



**Kyrgyzstan released water in
winter to generate electricity,
flooding downstream fields**



Uch-Kurgan hydropower station not shown
Map annotations created by Fatima Mendikulova.

1998 Agreement on the Use of Water and Energy Resources of the Syr Darya Basin

- Negotiated annual Toktogul release schedule in Kyrgyzstan, with surplus electricity to be delivered to downstream countries
- Kyrgyzstan would receive fuel from Uzbekistan & Kazakhstan

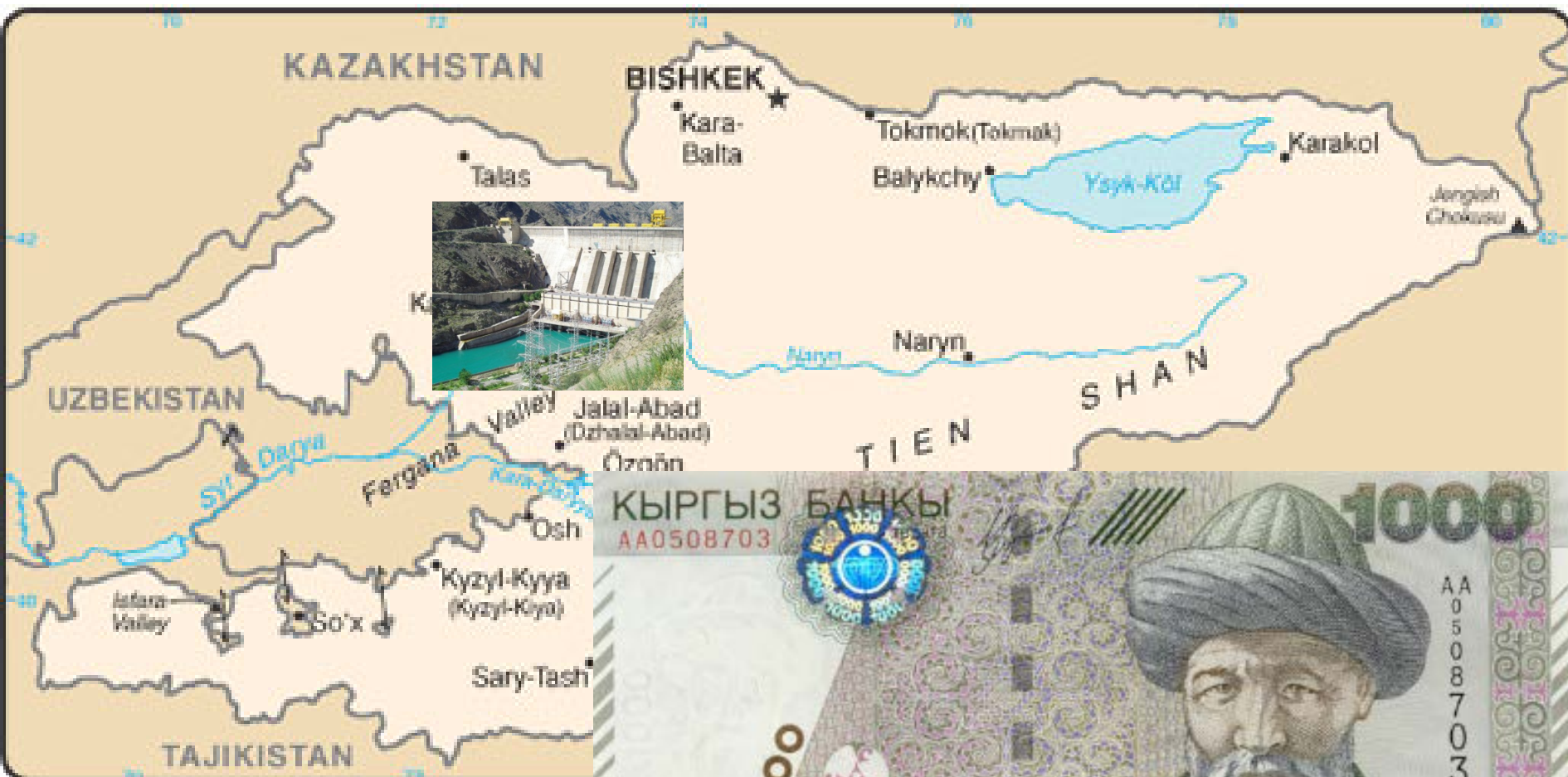


Toktogul Reservoir

Implementation challenges of 1998 Syr Darya Agreement

- Less fuel delivered to Kyrgyzstan during wet years → Toktogul releases in winter
- Requires yearly agreements; no multi-year planning
- Compensation only for releases; not for storage services and O&M





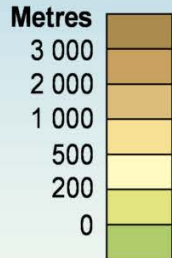
<http://centralasia.usaid.gov/kyrgyzstan/country-profile>



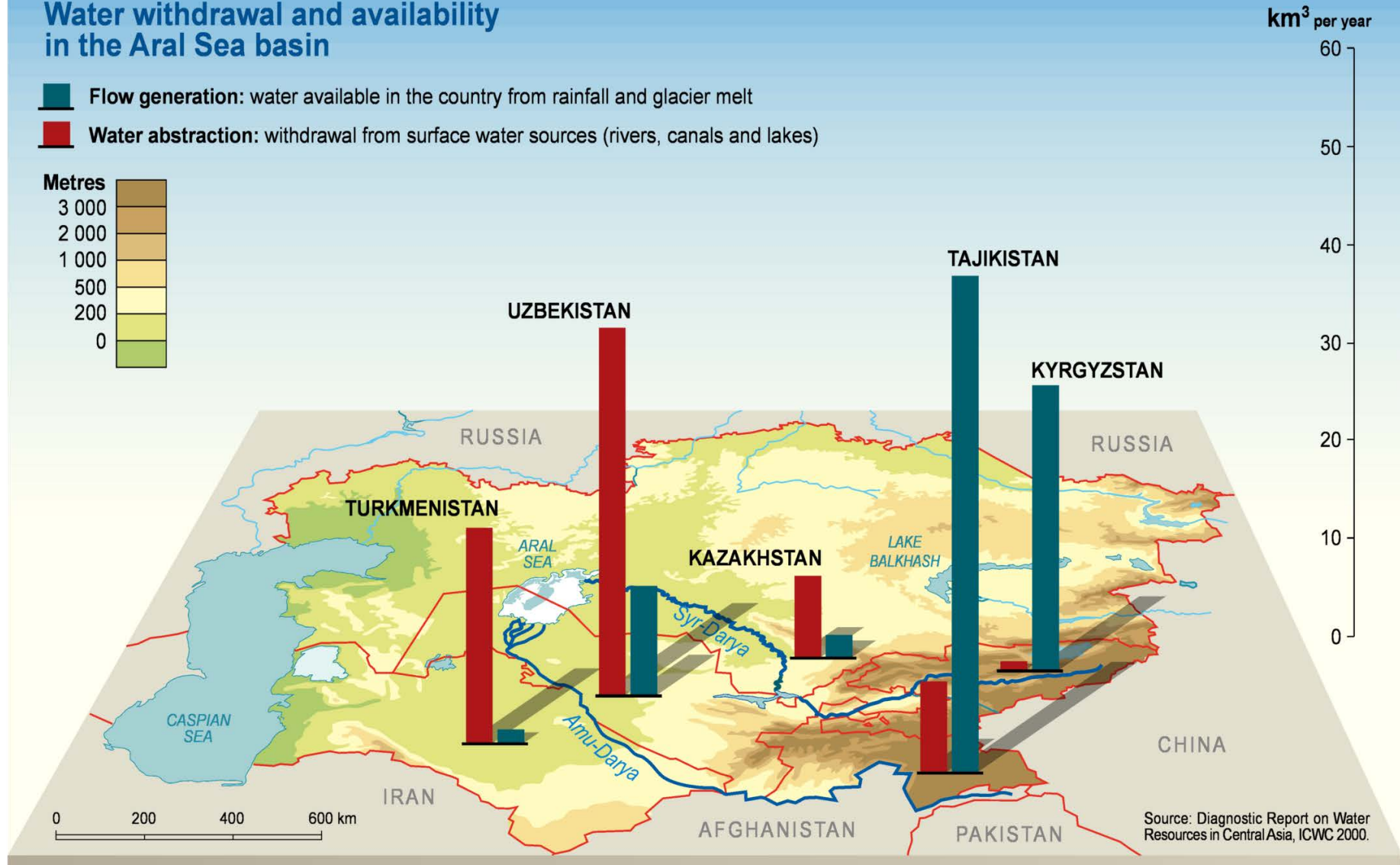
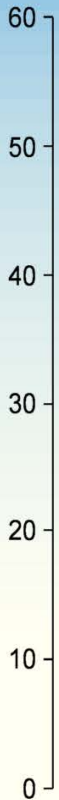
Water Availability vs. Water Usage by Country

Water withdrawal and availability in the Aral Sea basin

- **Flow generation:** water available in the country from rainfall and glacier melt
- **Water abstraction:** withdrawal from surface water sources (rivers, canals and lakes)



km³ per year



Source: Diagnostic Report on Water Resources in Central Asia, ICWC 2000.

THE MAP DOES NOT IMPLY THE EXPRESSION OF ANY OPINION ON THE PART OF THE AGENCIES CONCERNING THE LEGAL STATUS OF ANY COUNTRY, TERRITORY, CITY OR AREA OF ITS AUTHORITY, OR DELINEATION OF ITS FRONTIERS AND BOUNDARIES.

MAP BY VIKTOR NOVIKOV AND PHILIPPE REKACEWICZ - UNEP/GRID-ARENDA - APRIL 2005



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From the glaciers to the deltas



Executive Committee
International Fund for saving the ***Aral Sea Basin Program 3 (ASBP 3)***

Here is what is left of the Aral Sea from 1960s and up to September 2014



From Sea to Desert

The Aral Sea, 1968



Aralkum Dessert, Present



RIA Novosti/Iosif Budnevich <http://rt.com/news/191656-aral-sea-nasa-dry>

<http://news.nationalgeographic.com/news/2010/04/photogalleries/100402-aral-sea-pictures/#>



Interstate Commission for Water Coordination of Central Asia

Legal Framework

Activity

Executive Bodies

Meetings

Events


Contacts


Legal framework of ICWC activity

Statement of heads of water economy organizations of Central Asian Republics and Kazakhstan (1991)

Agreement between the Republic of Kazakhstan, the Kyrgyz Republic, the Republic of Tajikistan, Turkmenistan and the Republic of Uzbekistan on co-operation in interstate sources' water resources use and protection common management (1992)

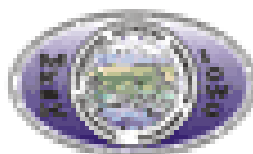
Agreement between Republic of Kazakhstan, Kyrgyz Republic, Republic of Tajikistan, Turkmenistan, and Republic of Uzbekistan on joint activities in addressing the Aral Sea and the
the Sea crisis. improving the environment. and enduring the social and economic

 [National Water Law of Central Asian Countries](#)

 [Documents of National and International Water Law](#)

STRUCTURE of Interstate Coordination Water Commission of Central Asian states

FOUNDERS OF ICWC



ICWC

Secretariat

Scientific Information Center (SIC ICWC)

BWO "Syrdarya"

BWO "Amudarya"

Coordination Metrological Center (CMC ICWC)

ICWC Training Centre

Kazakh Branch

Kyrgyz Branch

Tajik Branch

Duty to Cooperate and Exchange Info Hampered by National Security Concerns





IFAS Board meeting, December 2010

No effective dispute resolution mechanisms

Upstream-Downstream Dynamic at Local Level

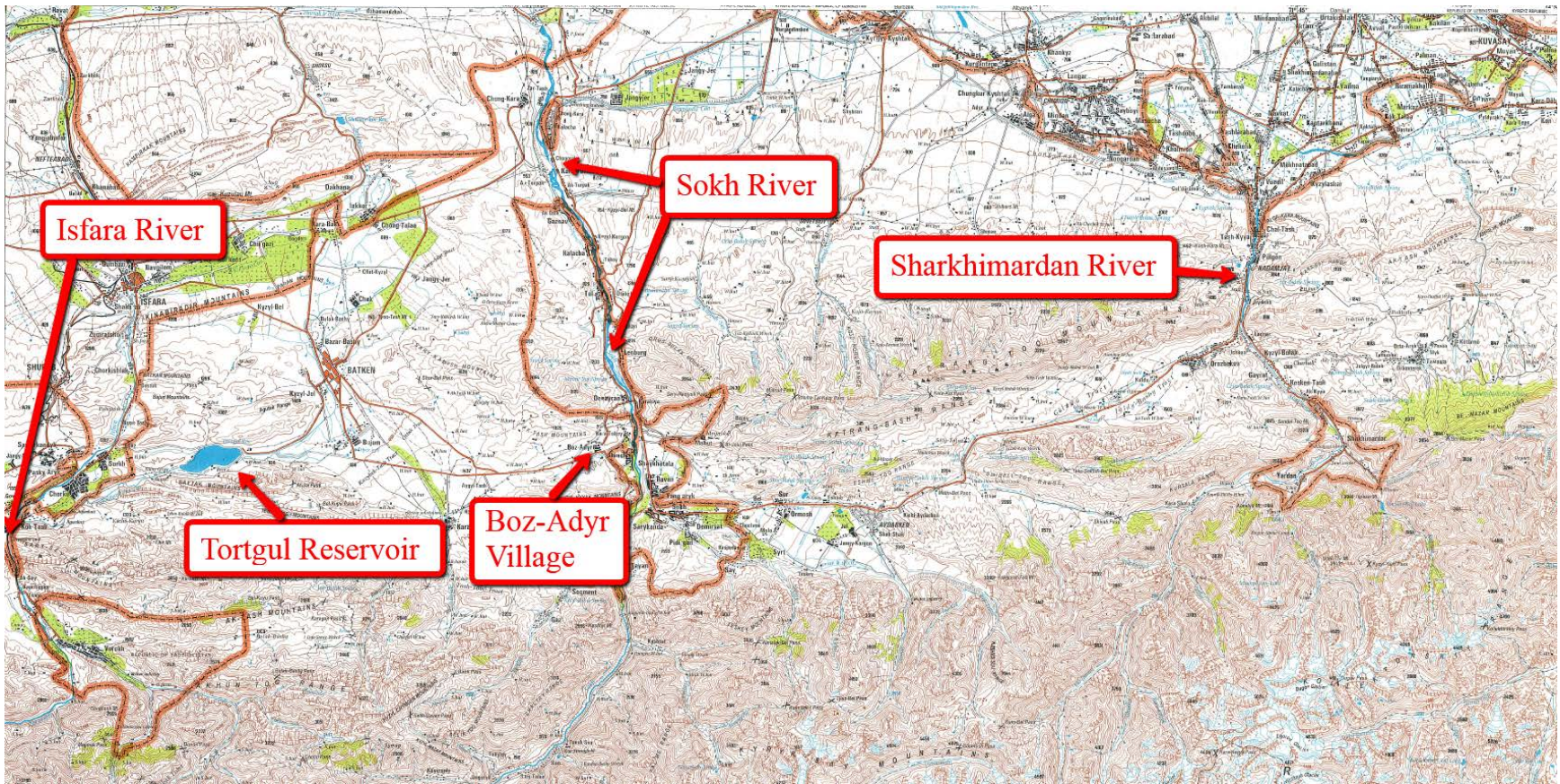
Padishata River & canal starts in Kyrgyzstan;
goes to Uzbekistan & returns to Kyrgyzstan





In the Uzbek enclave of Sokh in Kyrgyzstan, vast majority of the population are Tajiks.

Small rivers became international



Many more farmers

Canals cross borders

Constructed for collective farms



<http://www.waterca.org/programme/c3/by-country/kg/isfara?lang=en>

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Conflict and cooperation along international waterways¹

Aaron T. Wolf*

Int Environ Agreements (2008) 8:297–316
DOI 10.1007/s10784-008-9083-5

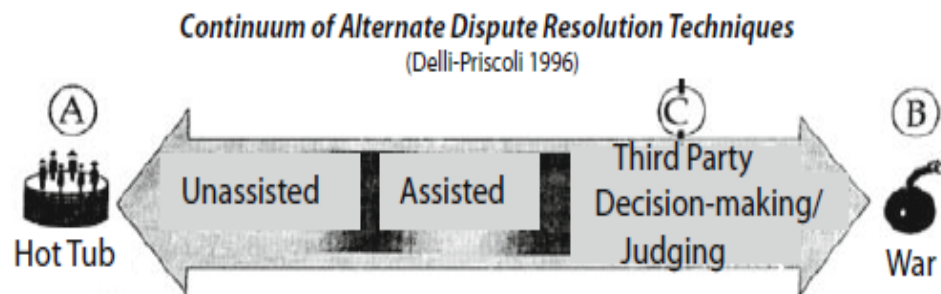
ORIGINAL PAPER

Benefits sharing

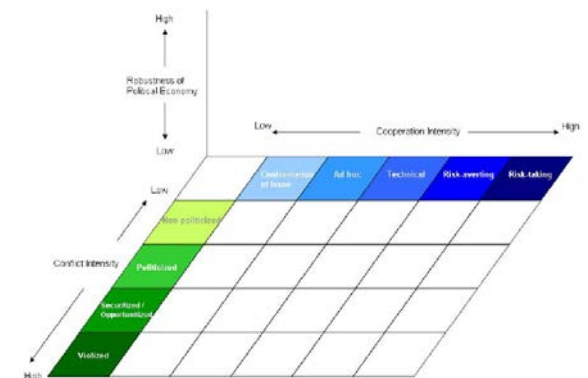
Sadoff & Grey

Transboundary water interaction I: reconsidering conflict and cooperation

Mark Zeitoun · Naho Mirumachi

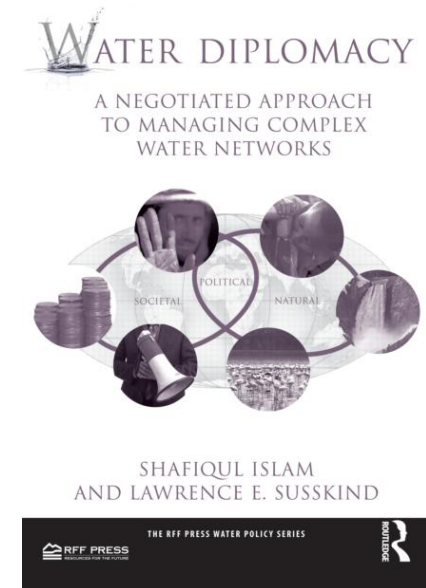


Transboundary Waters Interaction NexuS (TWINS)



Core elements of Water Diplomacy Framework

1. Value creation
2. Collaborative adaptive management
3. Joint fact-finding and scenario planning
4. Stakeholder representation
5. Convening
6. Societal learning



THE WATER DIPLOMACY FRAMEWORK

ACKNOWLEDGE KEY ASSUMPTIONS

Water is a flexible resource.

Science, policy and politics combine to create water networks.

Water networks are complex.

Assumption #1:

Water networks are open and continuously changing.

Assumption #2:

Water network managers must take account of uncertainty, non-linearity and feedback.

Assumption #3:

Water networks need to be managed using a non-zero sum approach to negotiation.

THEORY: CHARACTERIZE WATER NETWORKS PROPERLY

Distinguish among simple, complicated and complex water networks.

Identify appropriate domains, levels and scales.

Recognize that the natural, societal and political domains (NSPD) are interconnected.

Locate problems on the certainty-uncertainty and agreement-disagreement continua.

Understand what it means to operate in the Zone of Complexity.

PRACTICE: MANAGE WATER NETWORKS PROPERLY

Recognize that simple, complicated and complex water networks require different management approaches.

Ensure appropriate stakeholder representation.

Engage in scenario planning and joint fact-finding.

Emphasize value creation.

Mediate informal problem-solving and seek consensus.

Commit to adaptive management (AM) and organizational learning.

Implement an appropriate management strategy for each water network.

Water networks in Ferghana Valley are complex

- Geopolitics
- Differing political economies
- National/local politics
- Border disputes
- Ethnic Tensions
- Corruption
- Smuggling
- Trafficking
- Poor Economic Conditions
- Land Pressure
- Labor Migration
- Environmental Health





Interstate Commission for Water Coordination of Central Asia

[Legal Framework](#) [Activity](#) [Executive Bodies](#) [Meetings](#) [Events](#) [Contacts](#)

Main challenges facing by the region regarding water issues

An analysis of the water management situation in the region has revealed existence of the following general destabilizing factors:

- Demographic growth and permanent large share of rural population;
- Lack of consideration of environmental demand in current basin water use and conservation

[▶ Main water issues](#)

[▶ Strategies for implementation](#)

• Lack of TRUST

- breaching the agreements on water sharing;
- Insufficient information interchange among riparian countries, first of all, exchange of hydro-meteorological data to ensure the more accurate forecast of water availability and to improve transboundary water management;
- Lack of policies and programs of the regional economic integration, and insufficient co-operation to improve the irrigated farming productivity on the basis of the model that enables optimizing the differentiation of labor in the region; and
- Vagueness at the regional level such as the prospects of water use by Afghanistan etc.



Thank you