

International Water Resource Management in Central Asia:

An Evaluation of Past Performance and Projections for an
Uncertain Future

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Water basin politics in Central Asia

Patterns of cooperation and noncooperation

The impact of water scarcity

Conclusion

The upstream-downstream divide

Politics in international water basins are influenced by two factors:

Different levels of dependency

The downstream territory is usually more conducive to agriculture, which comes earlier in development than upstream-specific uses like hydropower

Different positional power

Water use by upstream states is limited only by the natural flow of the river, while downstream states are also constrained by the actions of those upstream

There is an inherent tension between the dependency of downstream states and the positional power of upstream ones

Cotton dependency and the Soviet water management regime

These problems were alleviated during Soviet times because water management occurred at a basin-wide level

Water dependency of the downstream regions was increased through collectivization and the development of the cotton monoculture

Cotton production increased from 662,600 tons in 1913 to 9,078,000 tons in 1980

An irrigation-focused water management regime was designed to cope with the increased demand

Construction reservoirs in upstream areas (Toktogul, Nurek)

Release of water in summer for irrigation

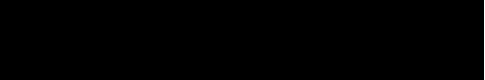
Provision of fuel energy to the upstream regions

Post-Soviet developments

After the Soviet Union's collapse there was no longer a central government to guarantee adherence to contracts

Water management became a question of *international cooperation* rather than internal regulation

Conflicts emerged over the optimal water management regimes



Cooperative and noncooperative events

Four types of cooperative events:

- Formal agreements

- Joint statements/protocols

- Meetings of International Organizations

- Official discussions outside the purview of IOs

Four types of noncooperative events:

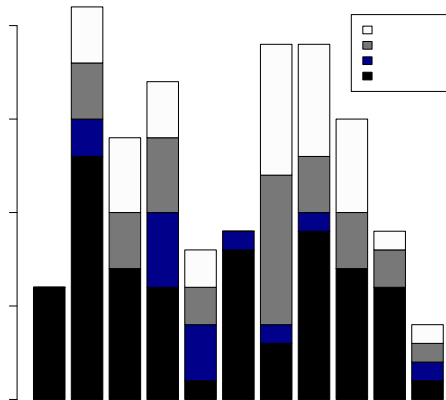
- Violence

- Nonfulfillment of contract

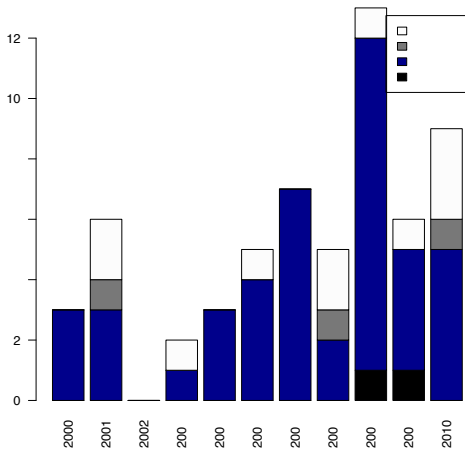
- Threat of nonfulfillment

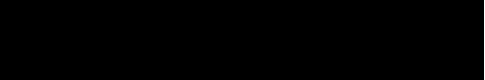
- Official criticism

Cooperation over time



Noncooperation over time





Scarcity and cooperation

There are two competing theories of the relationship between water scarcity and cooperation:

Higher water scarcity	less cooperation (more conflict)
Higher water scarcity	more cooperation (less conflict)

Predicted probabilities of different events

Conclusion

No lasting regime of water and energy management has been achieved in the post-Soviet period

Variation in cooperation and noncooperation exists both over time and among dyads

The effect of relative scarcity on cooperation is ambiguous, although the data for the Amu Darya basin suggest that cooperation may be more likely when scarcity is high