Towards consistency of value and order: cooperation strategies of international water projects

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CONTENTS

1 Conflicts and risks: Why do countries refuse to cooperate in water?

Q1

Why do countries refuse to cooperate regarding water issues?

Cause 1
Conflicts

Cause 2
Risks

Misunderstanding

countries involved in water resources project investors and recipients, governments and citizens

- a lack of information and knowledge
- conflicting values and interests
- attitudes/intentions - of the counterpart countries and institutions
- bad effects of past joint projects

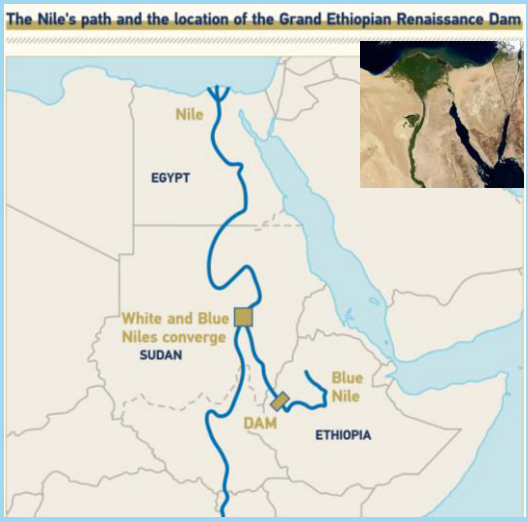
Zero-sum game of transboundary water resources

(prisoners' dilemma game)
Jervis, 1978; Schelling, 1960; Stein, 1980)

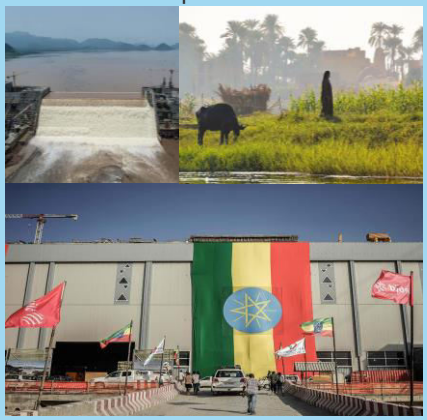
- excludability of public goods

the marginal gains of individual beneficiaries fall quickly while free-riding beneficiaries increase, thus the game ends with zero contribution from each beneficiary.

- a lack of commitment and trust



disputes over the water rights of the Nile dam and the dam project have been a cause of disagreement between Egypt, Sudan and Ethiopia since colonial times



1 Conflicts and risks: Why do countries refuse to cooperate in water?

Q1

Why do countries refuse to cooperate regarding water issues?

heterogeneity of individual countries, as values, laws, ideologies, etc.

Cause 1

Conflicts

- political tension or instability rather than actual acts of war
- the use of water as an instrument, target or victim of armed conflicts (De Stefano et al., 2010)

Cause 2

Risks

Political risks

- the capacity and knowledge of decision-makers

aiming at minimizing the loss of interests and sovereignty, and maximizing access to water resources; losing negotiating power

- the need of support of citizens

Security risks

- local: water scarcity
- national and international: interaction of natural physical cycle and state actions and decisions

--political uncertainty, economic fragility, and geopolitical security crises

Global water security - extra environ issue to regions

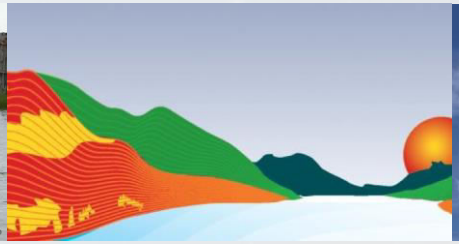
Investment risks

- less developed regions, easy to fail the joint cooperation projects

joint operation of fisheries, hydro-power and flood control requires more effective cross-border cooperation

- ongoing dynamic uncertainties

climate change, continued population growth, ecosystem degradation, demand for non_x0002_fossil fuel energy and ageing infrastructure



1 Conflicts and risks: Why do countries refuse to cooperate in water?

Q2

What caused water conflicts and risks?

Interests
- of Individual countries
- of multiple actors

Value
- Rationality V.S. Humanity
- Efficienty V.S. Equity

Misunderstanding

Zero-sum gaming

Risks

Political risks
Security risks
Investment risks

Order
- Global order
- Local order

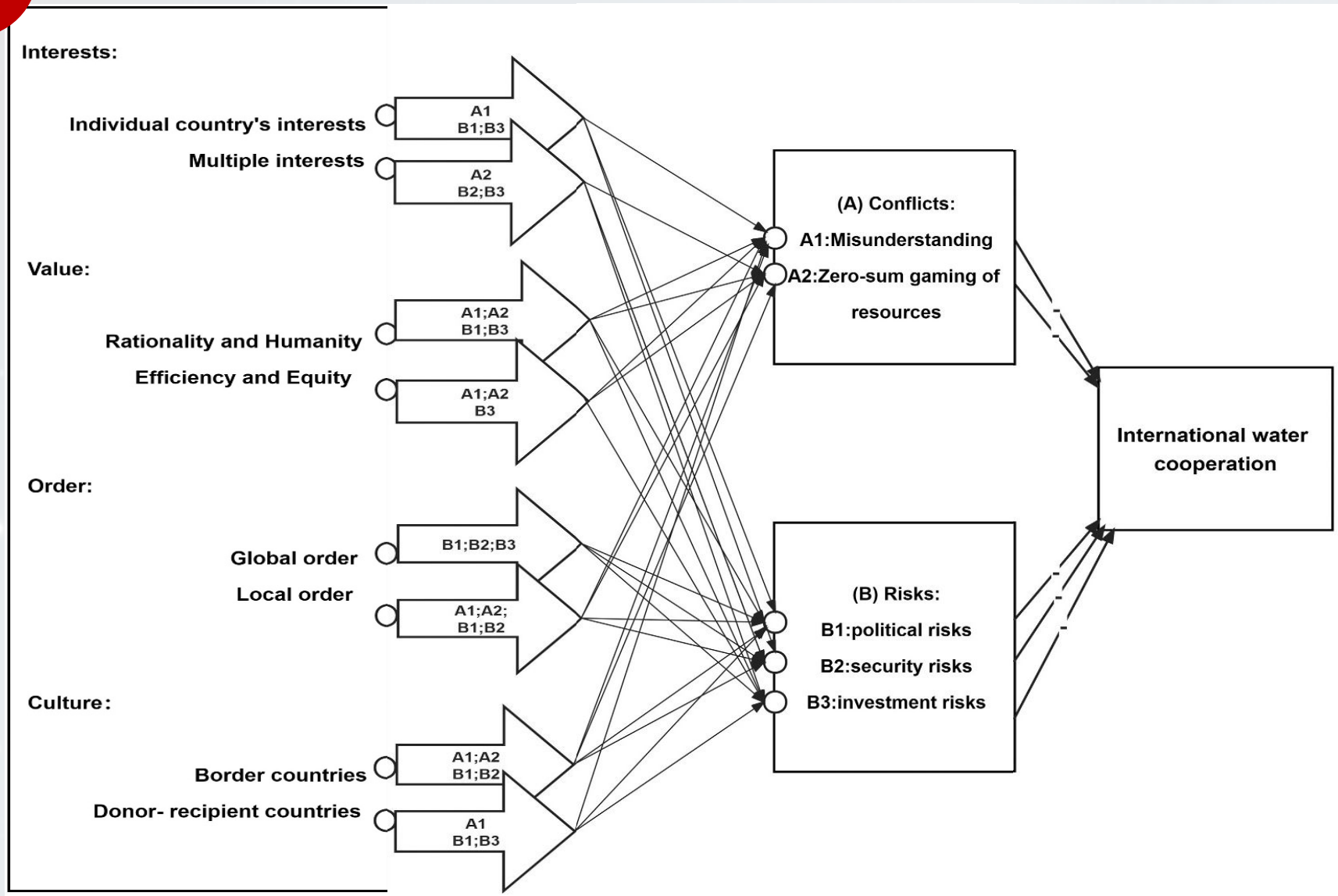
Culture
- Border countries
- Donor-receiptent countries

1 Conflicts and risks: Why do countries refuse to cooperate in water?

Q2

What caused water conflicts and risks?

Logical framework of the causing path of the conflicts and risks



2 Case analysis

Case selection and data sources

	A	B	C
Beginning of aiding	**World BankGroup** Since its founding in 1944	**Asia Development Bank** Since the 1960s	**African Development Bank Group** Since its founding in 1964
International organization/ country	International organization	International organization	International organization
Funding/ODA scale	2723 projects totalling $332.23 billion()	Total operations US$20.5 billion; cofinancing including trust fund $11.4 billion (2018-2022)	Cumulative 6575 operations totaling $ 175.75 billion (1967-2021) (African Development Bank, 2023)

- International Bank for Reconstruction and Development (IBRD)——Loan provision（）
- International Development Association (IDA)—— Interest-free loans and grants
- International Finance Corporation (IFC)——Provide loans/investments without government guarantees to key private companies in member countries, esp. developing countries
- Multilateral Investment Guarantee Agency (MIGA)——Guarantees to investors and lenders (political risk insurance and credit enhancement)

	D	E	F
Beginning of aiding	**European Union** Since 1990s	**America** Since 1940s	**Japan** Since 1954
International organization/ country	International organization	Major developed country	Major developed country
Funding/ODA scale	$56.2 billion (2014–20); $19.1 billion (2021)	Cumulative totalling $136.98 billion (2014–20), with about $20 billion annually (USAID 2021a)	Cumulative totalling $1783.9 billion(JICA,2023)

Data source: The author compiled and made according to information from the official websites.

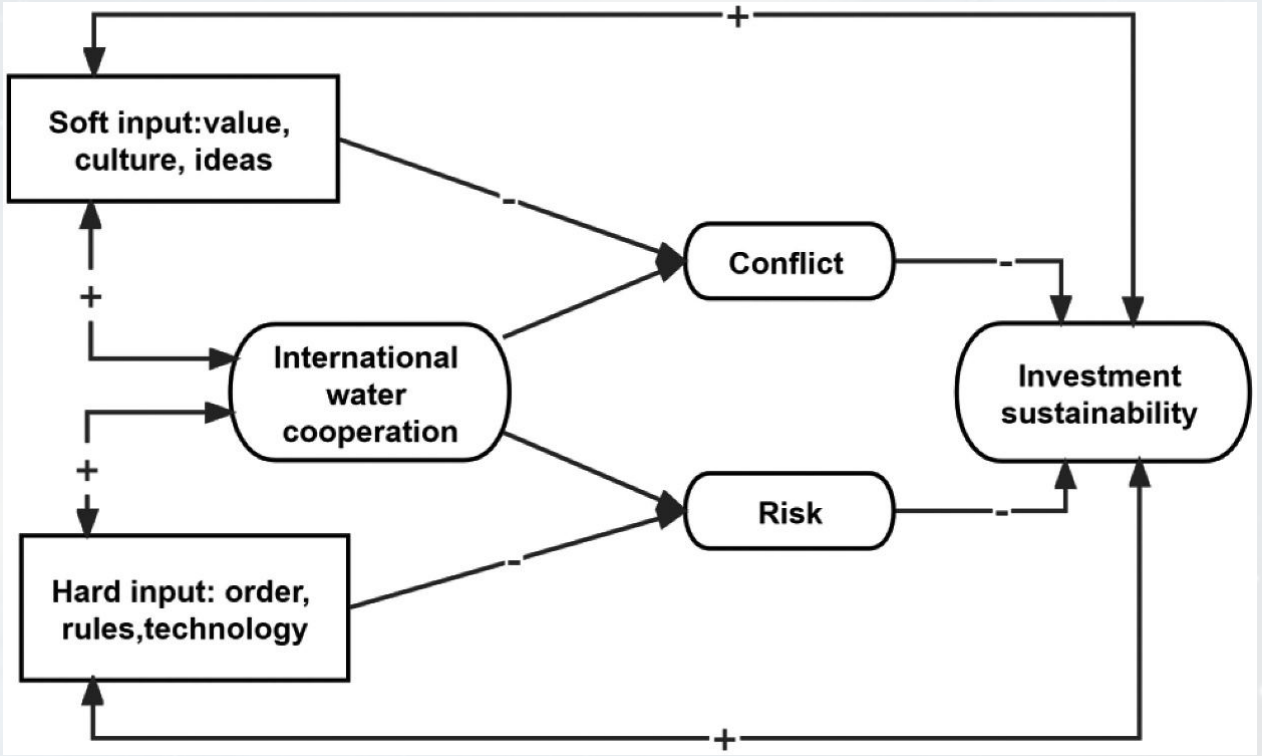
2 Case analysis

Logic framework

Official websites, online news

seminar records, technical/ political reports, articles

interviews, academic literature



Logic of international water cooperation strategies against conflicts and risks

2 Case analysis

Q3

What have IOs and major developed countries been doing?

Comparation of the six cases:
Cooperation method *and* **type of input**

1) main regions

World bank	Latin America and the Caribbean, East Asia and the Pacific, East Africa, South Asia, etc.
Asian Development Bank	Asia-Pacific.
African Development Bank	North Africa, West Africa, East Africa, Central Africa, Southern Africa, and non-Regional Members
EU	Central and Eastern Europe, Africa, South Asia, Central Asia, Southeast Asia.
US	Developing countries and Asian regions, esp. the surrounding areas of China, including the Mekong River Basin in Southeast Asia, the Amu Darya River Basin in Central Asia, and the Indus River Basin in South Asia.
Japan	Africa, especially sub-Saharan Africa; Southeast Asia..

2 Case analysis

Comparation of the six cases: **Cooperation method** *and* **type of input**

2) contents

WBD

- 1) Integrated water treatment for water supply, sanitation,
- 2) water resource management,
- 3) agricultural water use.

EU

- Aiding for water-related infrastructure construction,
- focusing on concept implantation and mechanism building.

ADB

- 1) Rural water: water and sanitation and irrigation and drainage;
- 2) Urban water: water supply, sanitation and waste management;
- 3) Basin water: infrastructure and multi-purpose water regulation and management of hydro-power facilities, integrated water resources and rivers health.

US

- Aiding for the development of water-related infrastructure
- in which the assistance emphasizes technology and regulations output.

AFDB

- 1) construction of urban and suburban water supply and sanitation facilities;
- 2) integrated water resources management;
- 3) interventions in rural water supply and sanitation

JP

- 1) water resources development and water recycling utilization;
- 2) technical cooperation of local governments in the waterway industry;
- 3) seawater desalination, river bank protection, natural water circulation treatment, etc.

2 Case analysis

Comparation of the six cases:
Cooperation method *and* **type of input**

3) Cooperation method

WDB

- 1) Direct loans and grants;
- 2) Loans/investments to private companies of member countries without government guarantees;
- 3) guarantees (political risk insurance and credit enhancement) to investors and lenders.

ADB

- 1) Expand multi-channel grants and participate in multilateral cooperation;
- 2) Direct investment and donation;
- 3) Lead financing and international cooperation.

AFDB

- 1) Financing projects, programs and studies in public and private sector;
- 2) financing non-project operations, including structural adjustment loans, policy reforms and advice and technical assistance;
- 3) debt reduction;
- 4) strengthening its position as African knowledge exchange hub.

Level and type of input to cooperation

EU

- 1) Multi-participating water diplomatic harmony, i.e. sideburns or counselors, wisdom, international banks, NGOs, etc.; 2) promote the European model;
- 3) push forward the construction of international conventions and regulations; 4) establish a cooperation mechanism platform;
- 5) large-scale financial support to expand influence.

US

- 1) Assistance for the development of the recipient country;
- 2) Construction water affairs multi-disciplinary cooperation frame, transit assistance intervention district affairs;

Japan

JICA is the major technical assistance organization, by

- 1) investment assistance;
- 2) expertise and technology support and human resources development and training;
- 3) leading loans and collaboration;
- 4) public-private interaction and cooperation.

2 Case analysis

Comparation of the six cases:
Cooperation method *and* type of input

4) level and type of cooperation input

- WBG
Mainly hard input, with methodology influence

- ABG
Mainly hard input, with methodology influence

AFDB Mainly hard input, with methodology influence

Hard input

US Hard input dominantly, supplemented by soft input of value, ideas and consent from other countries

Both hard and soft inpuy

Japan Both hard and soft input as dominant cooperative types, with a hard input mainly in technology, and a soft input mainly in ideas and consent of policy

AFDB Hard input dominantly, supplemented by soft input

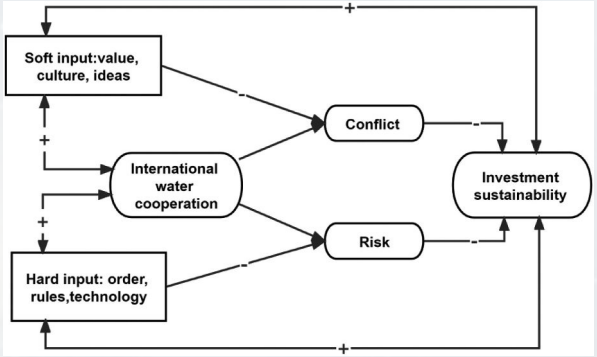
EU Both hard and soft input as dominant usl. a combination of the two

Soft Input

2 Case analysis

Q4

Why these strategies work?



Reason1

- **Hard input** of loans, project and technology aids, **to solve supply shortage of infrastructure and money**
- in area of Southeast Asia, Africa, Latin America and the Caribbean, etc.
- help the utilization and development of water resources

Reason 2

- **Soft input** of good interactions among countries,
- consent actions, formed based on similar value and ideas.
- successful soft strategies lay a foundation for the hard input

3 Finding: A two-track conceptual model for sustainable water cooperation

Q5 **How do these strategies work?**

Value of isomorphism ⇔ **Order of symbiosis**

- to resolve conflicts by including factors such as

consistency of ideas, diffusion of methodology (ideas, values), community participation (empowerment) and resource incentives (win–win interests)

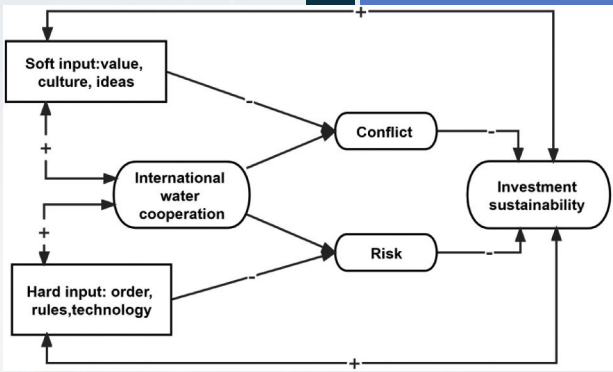
- **When:**
- the ambiguity of goals, and institutional changes (which of institutional isomorphism)
- the centralization and dependency of water resources, technological uncertainty
- increasing goal consistency against conflicts and efficiency, might still lay a foundation of value of isomorphism.

- to reduce risk, that is, to get rid of the disorder.
- includes diffusion of methodology (including process standardization),
- rule consistency, resource incentives (new rule construction), technical consistency
- (through technical assistance) and community participation (empowerment; localization).
- to focus on the coexistence of both local and global orders,
- as the similarities grow with the progress of international cooperation.

3 Finding: A two-track conceptual model for sustainable water cooperation

Q5

How do these strategies work?



Consistency

- of ideas
- of rules
- of technology

Community participation

- Empowerment.
- Localization.

Methodology diffusion

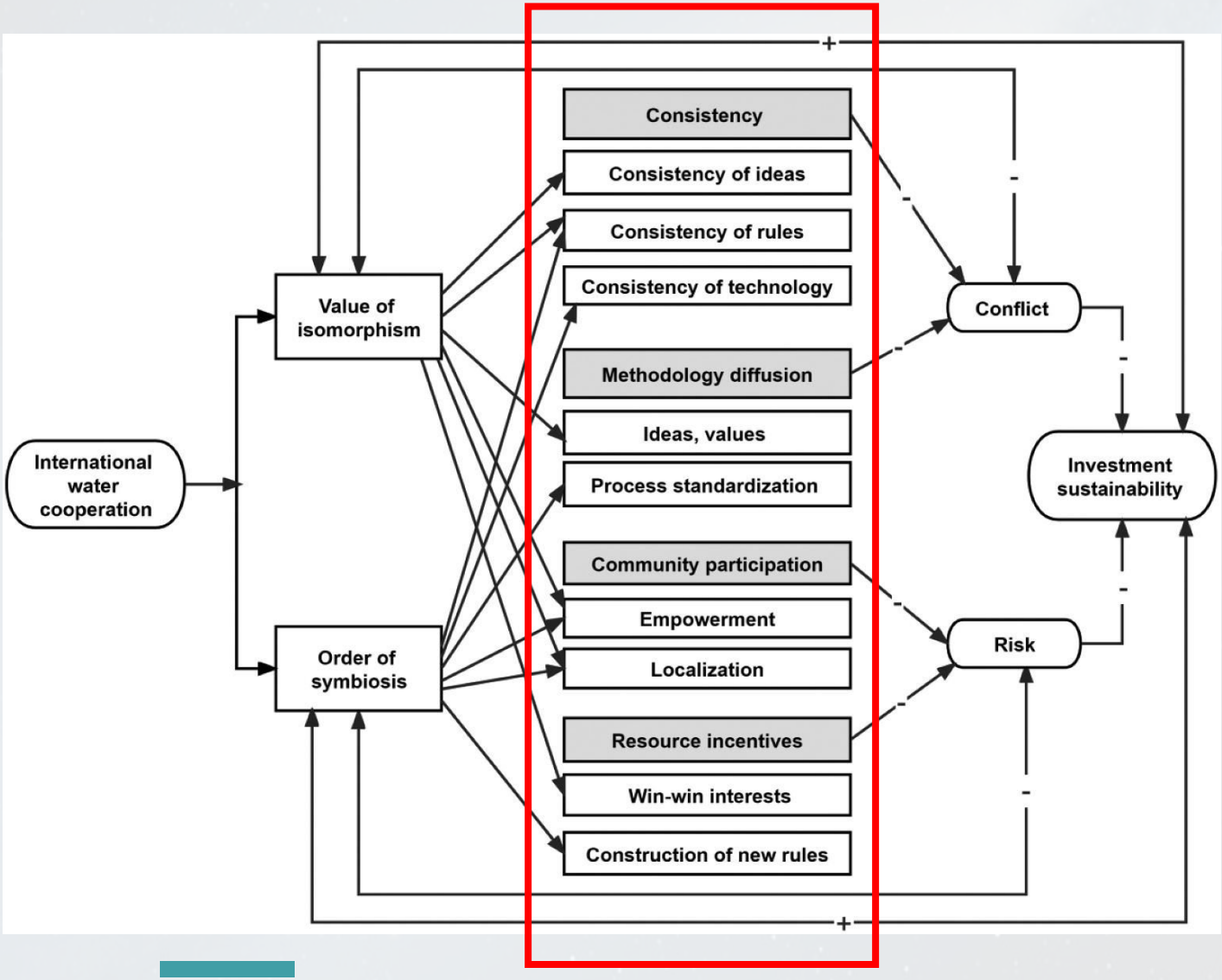
- Diffusion of Ideas and value
- Process standardization

Resource incentives

- Win–win interests
- Construction of new rules

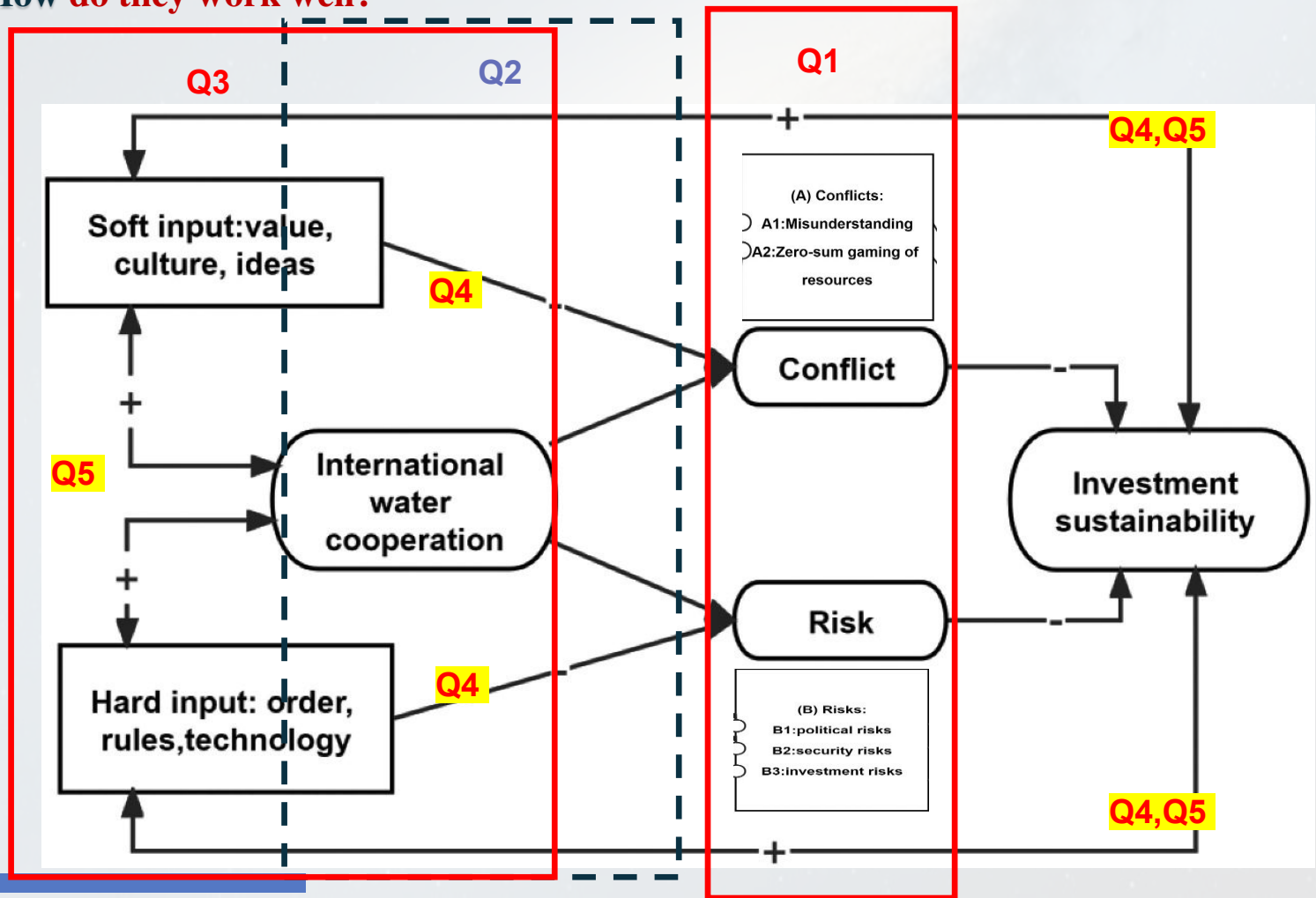
3 Finding: A two-track conceptual model for sustainable water cooperation

Four core strategies of international water cooperation



4 Conclusion

1. Why do countries refuse to cooperate regarding water issues?
2. What caused water conflicts and risks?
3. What have IOs and major developed countries been doing to address them?
4. Why do they work?
5. How do they work well?



4 Conclusion

Key Advices to Chinese international water cooperation

Consistency
- effective communication and mutual understanding
- in ideas (culture, value, etc.), rules (treaties, laws, regulations, agreements, etc.), and technology (advanced in knowledge and technology)

Methodology discussion
- mitigates technical or process contradictions caused by bad conduct of water projects
- investment or loans can be designed and implemented by a good consent standardization

Community participation bridge the gap
- between local government and citizens, and between coordinators, donors and recipients
- empower local community by information disclosure and opportunities for local wisdom

Resource incentives as catalysts
- by achieving win-win interests among international players
- make new rules that optimize water resources decision-making

- **Minimize potential conflicts + build trust**
- **mitigates contradictions + build standard**
- **bridge the gap + empower locals**
- **Use resources as catalysts than tools + make new rules**

Thank you!

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