

SHARIVA Roleplay ‘Addressing and Resolving Transboundary Flood Issues under Climate Change’

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Adaptation strategies to climate change in transboundary basins - a roleplay

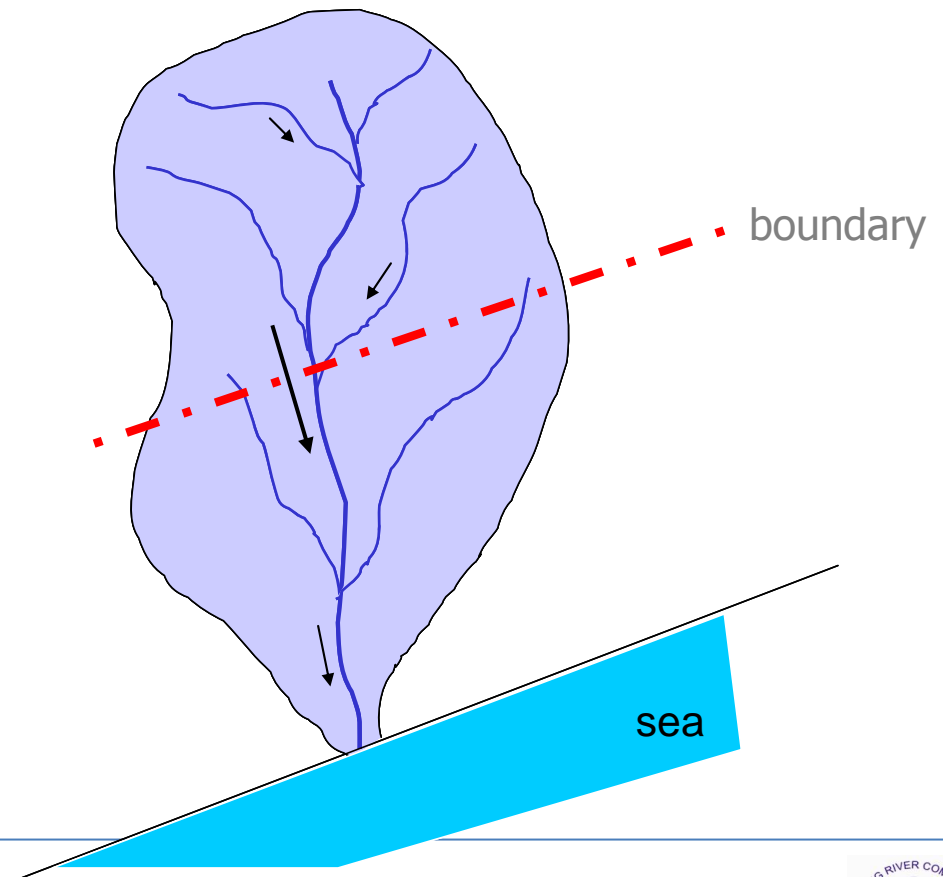
- Increased variability in rainfall and runoff
 - Increased demand for energy and other demands for water
 - Increased investments in water infrastructure for economic development and climate adaptation
- Impacts on natural resource base and society (positive and negative)

Roleplay:

- Provides insight into interlinkages and interdependencies at basin scale

Water asymmetry

- water tends to flow in one direction
- we tend to look upstream and often fail to appreciate downstream interests

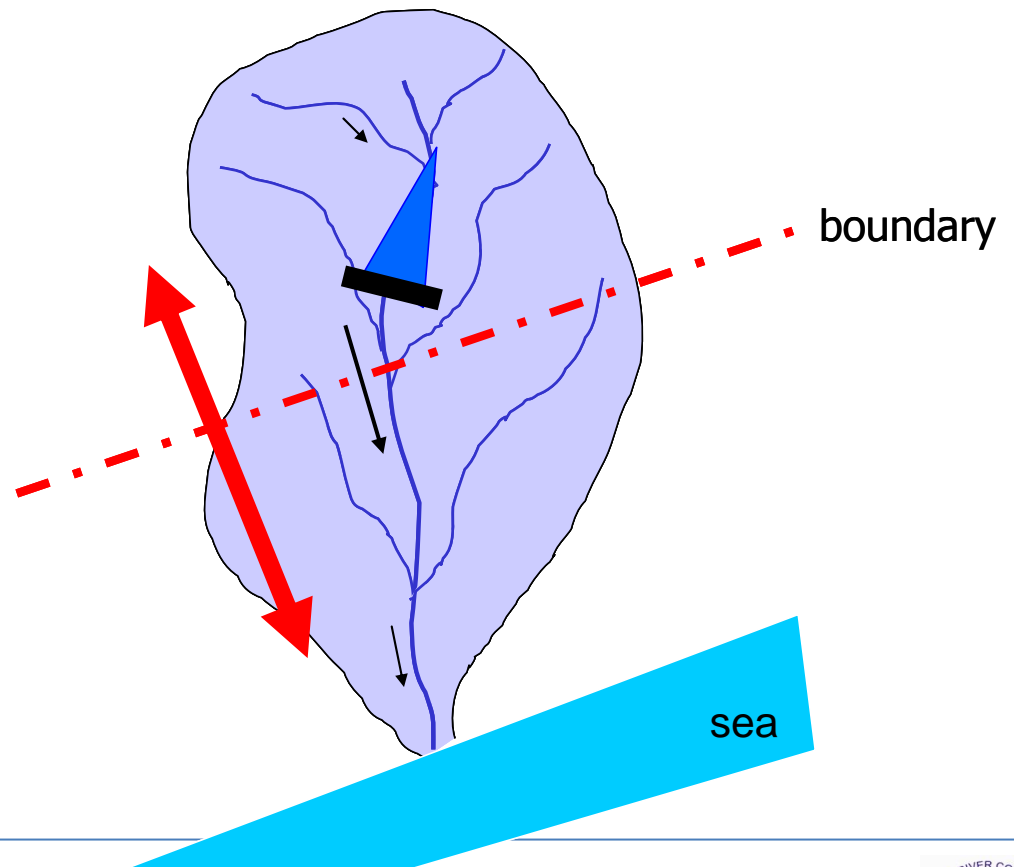


Water asymmetry

Unilateral
Development

Or

Benefit Sharing?



Interdependencies

Towards cooperation

- Through negotiation on specific water investments following the established legal frameworks (global, regional, basin)
- River basin agreements
 - Bilateral vs Multi-lateral
 - Water-oriented versus Development-oriented
- River basin organisations

Approaches to address issues, differences and disputes

A
D
R

- Consultation
- **Negotiation**
- Mediation
- Arbitration
- Litigation

Positions and interest

Positional bargaining

Our goal:

- To satisfy our country's needs, wishes, own personal and professional needs

We assume

- Negotiation is a zero sum game, the more water for them, the less for us
- We are sure that they will take advantage of us if they will have the opportunity

Approach:

- Rely on power

Interest based negotiation

Our goal:

- To satisfy our country's needs, wishes own personal & professional needs while bearing in mind that their happiness is "our business"

We assume:

- The Pie is not fixed, it can be enlarged through cooperation
- We can be sure that they will act in their own best interests

Approach:

- Rely on accepted standards of fairness

Background to the roleplay

Capacity Building Programme of Mekong River Commission- Flood programme:

“Anticipating and resolving flood issues, differences and disputes in the Lower Mekong Basin”

Objective of the programme:

- Strengthening the capacity of riparian professionals on anticipating and resolving transboundary flood issues, differences and disputes in the Lower Mekong Basin.
- Operationalising the MA 95 Agreement for Addressing TB Issues, Differences and Disputes

Target group:

- Staff of the four National Mekong River Committees (Cambodia, Lao PDR, Thailand and Vietnam)

Objectives of the roleplay

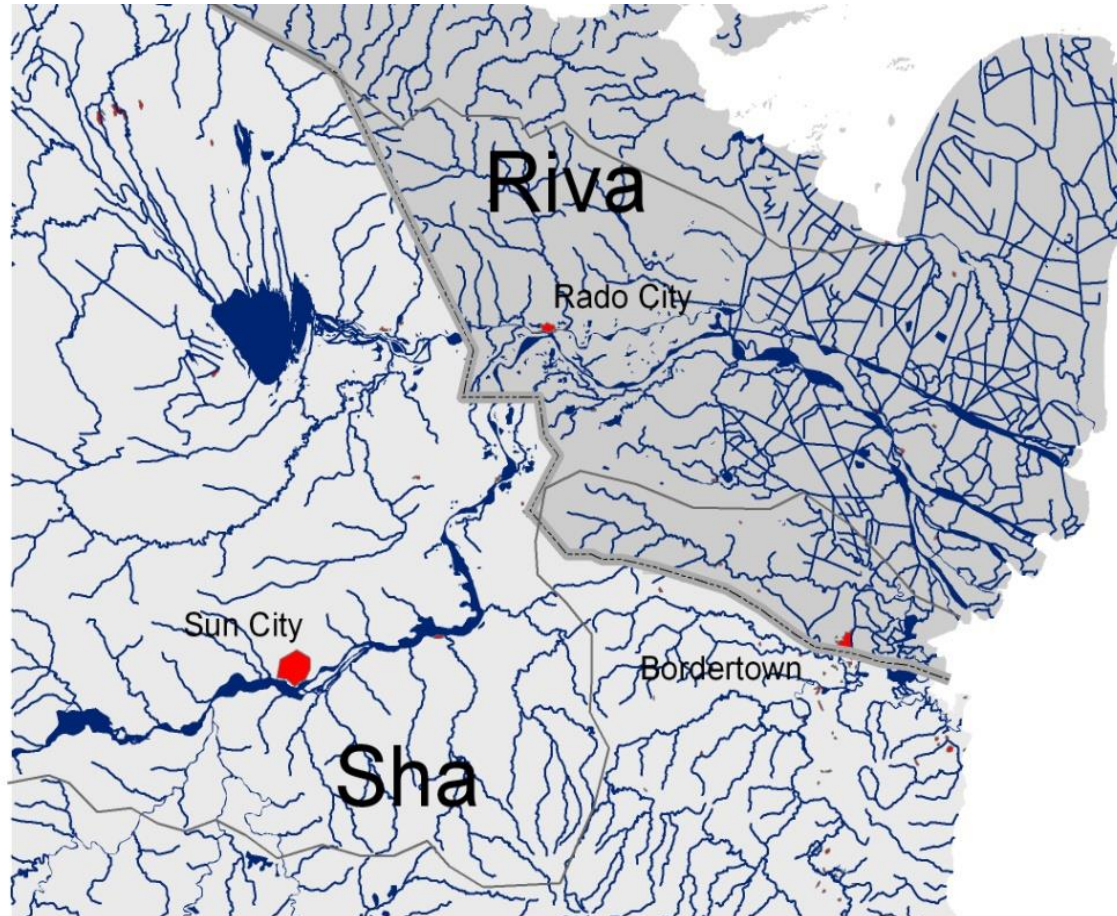
- Apply negotiation approaches, negotiation strategies
- Through roleplay understand different issues and players involved in transboundary river basin management
- Have fun!

Roleplay

- Participants in different roles (different ministries of the 2 member countries) will address and resolve a potential transboundary issue.
- The case is an imaginary basin (“Shariva”) that resembles the characteristics and issues of the Mekong.
- Participants will go through one round of negotiation.

The Shariva River Basin, its floods and transboundary flood issues

The Shariva region



We live in the Shariva region.

Two countries: Sha Country (upstream) and Riva Country (downstream).

The region is located there where the mountains and the hills gradually disappear into a rolling landscape and then change into a delta area.

The region mainly has a rural character, with several larger cities. The upstream country is relatively rich due to natural resources, the downstream country is poor.

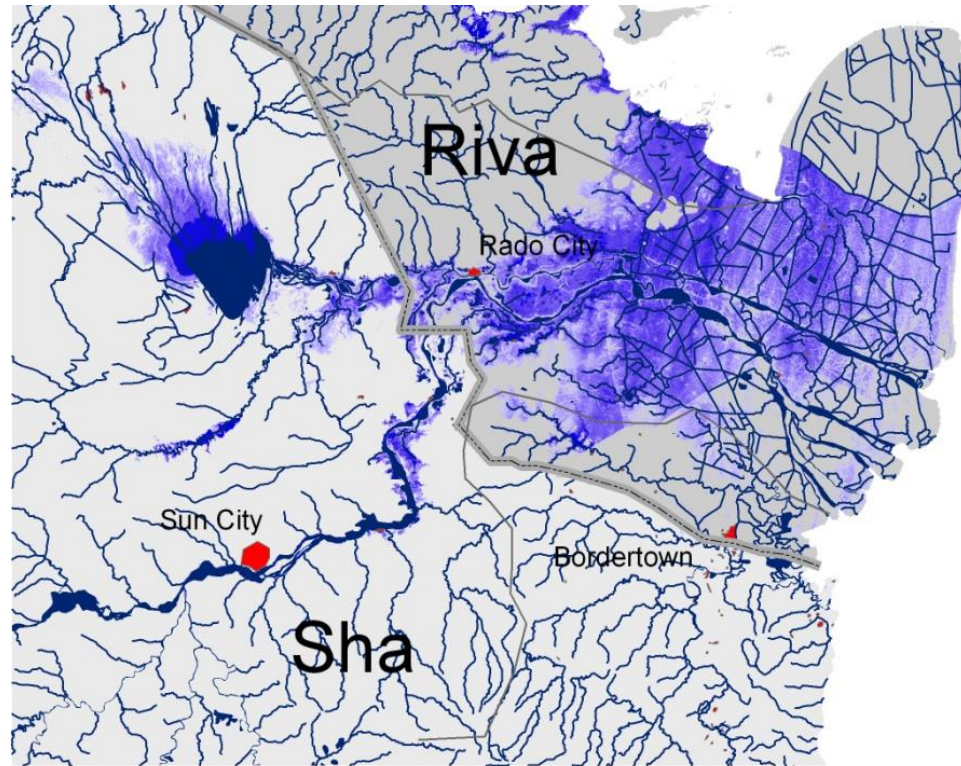
Benefits of flooding

- Agricultural productivity
- Freshwater ecosystems and their resource productivity (fisheries!)
- Increased possibilities for inland water transport / navigation
- Decreased saltwater intrusion
- Cultural / religious / recreational values



Damage of flooding

2003 flooding
(inundated area
flooding event 2003,
approx. 20% of
the region)



- In 2003 flooding (inundation depths of over 2 m) affected large areas of Sha Country and Riva Country. Total damage: € 2 billion (Sha Country: € 500 million, Riva Country: € 1500 million)
- Both Ministries of Water Management, responsible for flood protection, agreed to implement measures to alleviate extreme flooding damage. They are aware that the future damages will be much higher due to basin developments, but also aware of the benefits of floods.
- The flood also led to the establishment of the Shariva River Commission in 2008.

Transboundary issue: Upstream reservoir operation

- Sha Country plans to built reservoirs for water storage for primarily hydropower (cumulative large capacity).
- Poor operational management of reservoirs can create large differences in water levels on the mainstream, and availability in the Delta.

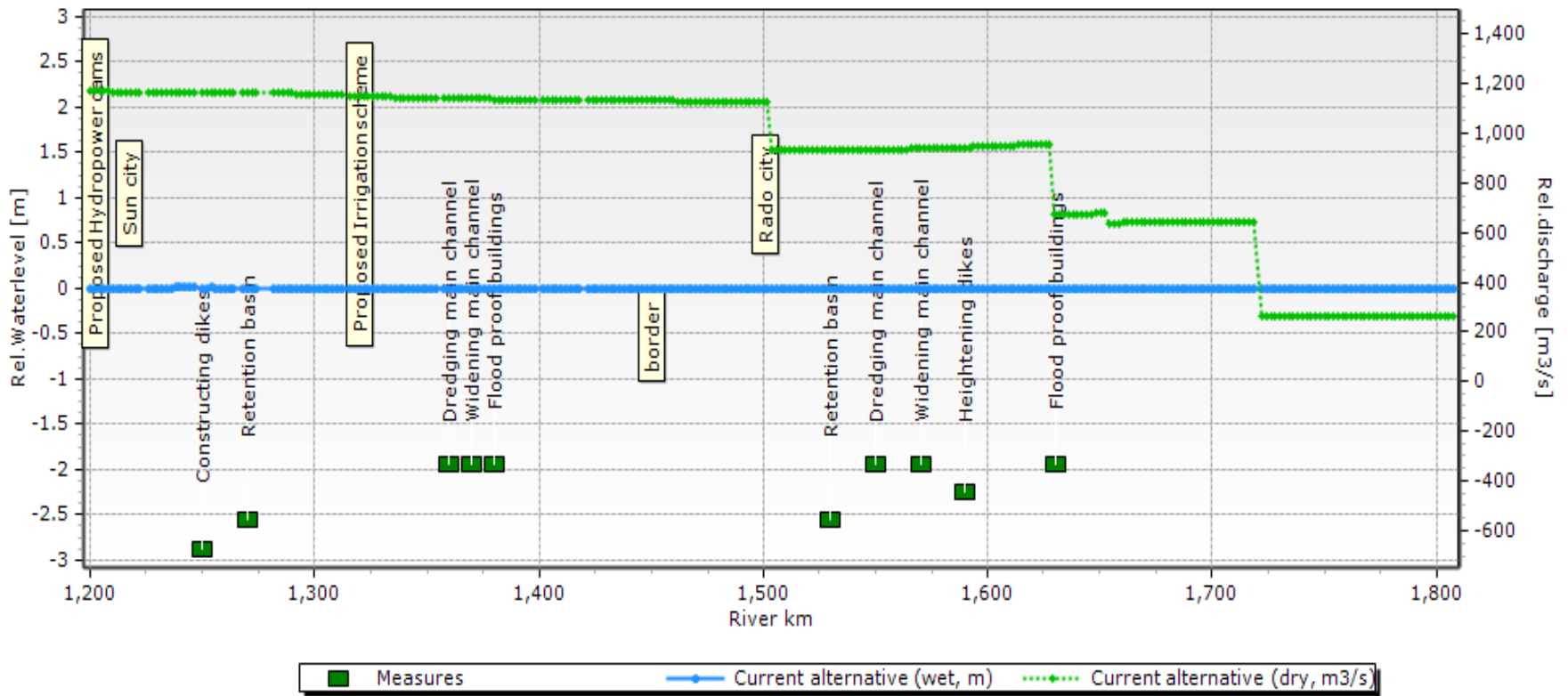
Trade-offs between hydropower versus flooding damages and/or less agricultural benefits.

Climate change may increase the flooding, the hydropower dam may be operated in a way to reduce the flood damages




Transboundary issue: Hydraulic Impact

Hydrograph for River Shariva



Transboundary issue: Management Options

Options

Issue	options	costs	flood water level	discharge dry season
Dam Construction in Sha Country				
	Hydropower Optimisation	100	0	△△
	Hydropower and Flood Mitigation	100	▽	△△
	Hydropower and Agriculture	140	0	△
	Multipurpose Dam	140	▽	△

Transboundary issue: Optional mitigating measures

Sha Country

	Type	costs	flood water level	discharge dry season
	Retention Basins	50	▽▽	0
	Dredging Main River Channel	450	▽▽	0
	Widening Main River Channel	200	▽	0
	Compartment Dike Protected Areas	10	0	0
	Constructing Dikes	150	Δ	0
	Flood Proof Buildings	15	0	0
	Development of Emergency Plan	15	0	0
	Implementation Flood Early Warning System	3	0	0

Riva Country

	Type	costs	flood water level	discharge dry season
	Heighthening Main River Dikes	200	Δ	0
	Retention Basins	100	▽▽	0
	Dredging Main River Channel	600	▽▽	0
	Widening Main River Channel	150	▽	0
	Compartment Dike Protected Areas	10	0	0
	Flood Proof Buildings	20	0	0
	Development of Emergency Plan	20	0	0
	Implementation Flood Early Warning System	3	0	0

Shariva region institutions and their roles

Delegations of Sha and Riva Countries

Sha Country

Riva Country

Main objectives and tasks:

- to manage water resources and water systems for optimum use of all functions
- to minimize the damage in case of flooding in extreme situations
- to protect the aquatic environment of the basin and sustain local livelihoods depending

Delegations of Sha and Riva Countries

Sha Country

Main concerns:

- the increasing demand for water in agriculture, hydropower, and urban areas
- the high and increasing level of flood damages, mainly around the lake, and the low level of preparedness
- the conservation of the lake system

Riva Country

Main concerns:

- the increasing level of proposed upstream basin developments with potentially adverse impacts
- the increasing demand for water in the agricultural sector
- the high and increasing level of flood damages, and low level of preparedness
- increased saltwater intrusion with serious impacts on agricultural sector

Shariva Agreement 2008 framework of addressing and resolving issues

- The Shariva Agreement provides the legal framework to anticipate and resolve issues, differences and disputes.
- The Agreement intentions and expectations on addressing differences and disputes are to first attempt to prevent or mitigate such circumstances through cooperation.
- To address issues, differences and disputes the Agreement offers a full range of options. JC functions to address these issues, differences and disputes.

The roleplay

- Step 1: Forming the delegation
- Step 2: National negotiation strategy
- Step 3: Negotiations
- Step 4: Signing Agreement
- Step 5: Internal debriefing
- Step 6: Reporting back to the plenary

Thank You!

Any questions?

The roleplay

- Step 1: Forming the delegation (10 min)
 - Head of delegation
 - Agricultural specialist
 - Energy specialist
 - Disaster specialist
 - Climate change specialist
 - Environmental specialist
 - Any other expertise

If you have a small group, you can merge some expertise
Assign an observer, who will report back to the plenary (step 5&6)
- Step 2: National negotiation strategy (30 min)
- Step 3: Negotiations (1h20 min)
- Step 4: Signing Agreement (5 min)
- Step 5: Internal debriefing (15 min)
- Step 6: Reporting back to the plenary (30 min)

Facilitator available

Be serious, and have fun

The roleplay

- Step 5: Internal debriefing (15 min)
- Step 6: Reporting back to the plenary (30 min)

- Sibylle Vermont to add instructions