Challenges & Opportunities: Benefit Sharing Mechanisms in Dam Projects on Shared Rivers

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Outline

- A recap: Optimizing infrastructure from a basin perspective: the rationale for benefit sharing
- Examples of benefit sharing
- A development partner perspective: moving ahead with benefits sharing: what do we need to do?
Unilateral action by any one country concerning infrastructure development in international basins is often:

- ineffective
  - Flood management
- inefficient
  - hydropower development in a flat downstream country
- or politically impossible
  - developments on boundary stretches,
  - closed basins => no available water rights
  - negative external effects => conflicts with international water law principle of “no harm”
Optimising infrastructure investments from a basin perspective therefore often requires a regional or cooperative approach:

- Water use in one part of the basin creates external negative effects in other parts.
  - If these externalities are not ‘internalized’, the overall benefits are reduced and the outcome is suboptimal.
- Optimal use of scarce financial resources by following most efficient (most value for money) basin development pathway
  - develop most suited sites first
  - utilize comparative advantages
The 'benefit sharing' approach

- Cooperation in managing transboundary water resources can be difficult, not least because property rights are often unclear and contested.
- Benefit sharing' has been proposed as one approach to bypass the zero-sum outcomes associated with dividing water.
- This approach focuses on optimizing aggregate benefits from basin development taking a basin perspective.
- Mechanisms for redistributing the costs and benefits of such a cooperative approach (compensation and benefit sharing mechanisms) are required for a cooperation to be fair for all riparians.
- Outcome of benefit sharing: all cooperating riparians are made better off compared to no or only unilateral action.
Case studies of existing benefit sharing mechanisms

Long version:  
www.die-gdi.de

Short version:  
www.giz.de
(1): Dam on river in upstream state with externalities into downstream state
Manatali and Diama Dams on Senegal River

- Incentives: none of the riparians can finance a dam on its own, upstream location of dam increases aggregate net benefits (Senegal + Mauritania lack adequate dam sites for hydropower)
- Benefit-sharing mechanism: Sharing of cost of jointly owned infrastructure in proportion to expected irrigation, navigation and hydropower benefits
Lesotho Highlands Water Project on Orange-Senqu River

- Incentives: downstream state seeks to save costs for water transfer by building a dam upstream

- Benefit-sharing mechanism: downstream pays investment and operating costs and external costs of storage and transfer of water from Highlands; Upstream receives in-kind hydropower benefits; net savings from cooperation compared to uni-lateral water transfer option are shared (royalties)
Case studies and hydro-political constellations

(1): Dam on river in upstream state with externalities into downstream state

(2): Dam on river in downstream state with externalities into upstream state
Case studies and hydro-political constellations

(1): Dam on river in upstream state with externalities into downstream state

(2): Dam on river in downstream state with externalities into upstream state

(3): Dam on the state border
Kariba Dam on the Zambezi River

- Incentives: development along border with symmetrical benefits and externalities
- Benefit-sharing mechanism: joint investment, benefit allocation according to investment shares
First conclusions

- Fostering cooperation is a matter of altering perceptions such that the benefits of cooperation are seen to outweigh those of unilateral action.
- The difficulty lies not in the conceptualization of the benefit-sharing idea, but in the realization of suitable arrangements.
- There are several existing cooperative arrangements and experiences to learn from.

However – open questions:

- Are we aware of all the arrangements in place at different scales – from smaller cross border projects to major dams?
- Do we have accessible information on the details of the implemented mechanisms for mutual learning and developing best practices?
German Development Cooperation in Transboundary Water Resources in Africa

Lake Chad Basin Commission (LCBC)

Niger Basin Authority (ABN)

Nile Basin Initiative (NBI)

Commission Internationale du Bassin Congo-Oubangui-Sangha (CICOS)

SADC Water Sector and RBOs

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German Development Cooperation approach:

- BMZ supports the establishment of benefit sharing arrangements as part of its support to fostering cooperation in transboundary river basins.
- BMZ has identified the existence of benefit-sharing arrangements as one of the criteria for the prioritization of its support to regional water infrastructure investment projects.

Conclusions at recent ICA Water Platform meeting in Frankfurt:

- Despite the efforts we are still facing a lack of truly regional investment project proposals.
- There are still relatively few proposals with benefit sharing arrangements / joint infrastructure investments.
- Why? Lacking trust and confidence between neighboring countries? Remaining strong preference for national solutions? Difficulties of developing benefit sharing arrangements?
Working together to foster benefit sharing on three levels / stages …

- Creating a common understanding (Frameworks, Guidelines)
- Scoping and developing benefit sharing scenarios (DSS, WRM Plans)
- Developing benefit sharing mechanisms for specific investment projects
Thank you!

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