

The benefits of transboundary water cooperation in the SMM

—

findings from a scoping paper

Roberto Martin-Hurtado

roberto_martin@hotmail.com

Introducing the Scoping Paper

- Companion report to the Situational Analysis (discussed this morning)
- **Objectives:**
 - To identify **current and potential benefits** of (improved) transboundary cooperation in water resources management to SMM riparian countries and their stakeholders at different levels in different sectors
 - To contribute to identifying a set of **activities that could be carried out as part of the BOAD** in the SMM basin.
- **Target audience:** project team, workshop participants

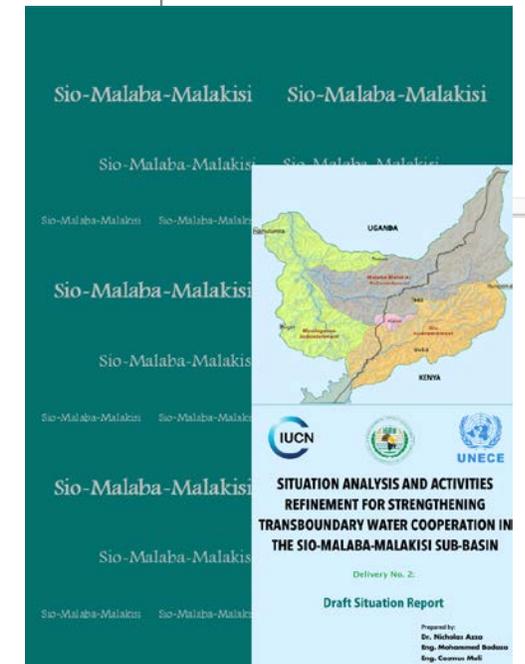
Scoping the benefits of transboundary water cooperation in the Sio-Malaba-Malakisi basin

Discussion Paper to support the OES/IGAD project "Strengthening Transboundary Water Governance in the IGAD Region"

Second Draft

13th May 2017

Roberto Martin-Hurtado



Conceptual framework

Benefits?

- Outputs of TWC processes vs benefits of TWC processes
- “Process benefits” and “outcome benefits”
- Typology of outcome benefits

Selected issues:

- Gross benefits vs net benefits
- Costs of inaction
- Omission and double counting
- Focus of assessment (from specific “RBO” activities to leveraged TWC)
- “Benefit-shed”
- Benefits and beneficiaries

From improved water management in the basin

Economic benefits

- Increased activity, productivity and long-term sustainability in economic sectors (aquaculture, irrigated agriculture, mining, energy generation, industrial production, nature-based tourism)
- Enhanced livelihoods and increased household incomes
- Reduced cost of carrying out productive activities
- Reduced economic impacts of water-related hazards (floods, droughts)
- Increased value of property

Social benefits

- Positive health impacts from improved water quality and reduced risk of water-related disasters.
- Improved access to basic services (such as electricity and water supply)
- Social welfare from increased employment and reduced poverty
- Improved satisfaction due to preservation of cultural resources or access to recreational opportunities.

Ecosystem benefits

- Preservation of aquatic and terrestrial habitats and biodiversity
- Preservation of key bio-physical processes, e.g. e-flows
- Better carbon management
- Inter-generational sustainability of ecosystems and natural infrastructure

From enhanced trust in and beyond the basin

Regional economic cooperation benefits

- Development of regional markets for goods, services and labour
- Increase in cross-border investments
- Development of transnational infrastructure networks (transport, energy)
- More diversified economies

Peace and security benefits

- Shared basin identity
- Reduced risk and avoided cost of conflicts between water users and between countries
- Strengthening of international law
- Increased geopolitical stability and strengthened diplomatic relations

Socio-economic characteristics

- Other characteristics discussed in Situational Analysis
- **Population and human settlements:** rapid population growth and migration, rural settlements with inadequate sanitation and SWM, water-related diseases
- **Agriculture, forestry and fisheries:** about 90% of the economy; mostly smallholder, subsistence, rain-fed agriculture with multiple negative impacts; fisheries locally important
- **Mining, energy and industry:** low penetration and high price of electricity, hydropower sites identified, negative impacts of sand mining and limited industry
- **Tourism and natural assets:** potential but still marginal
- **Floods:** environmental degradation and lack of investment in flood protection lead to multiple negative impacts (economic, social and environmental)

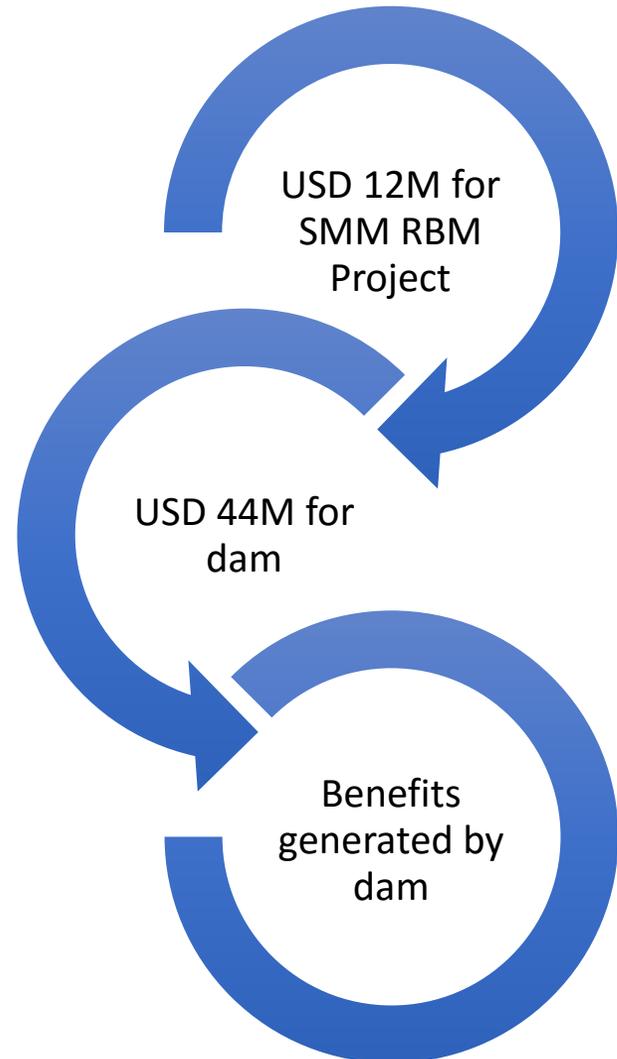


Benefits identified in previous SMM basin studies

- Some studies provide quite a comprehensive list of benefits, others do not mention any benefits
- Potential benefits, which could be generated by implementing specific projects or recommendations
- Mostly economic benefits, sometimes social and environmental benefits
- “Less traditional” benefits (regional economic integration, peace and security) not mentioned
- Focus on the benefits implementing specific projects, rather than of TWC
- Several studies seem to lack a transboundary perspective
- Most of the studies do not identify beneficiaries or discuss them in detail



Overview of accrued benefits



Process benefits

- MoU signed
- Knowledge and awareness in the basin community increased
- Knowledge and skills among officials increased
- Capacities leveraged from mutual learning and sharing of experiences
- **Monitoring networks strengthened**
- Modelling capabilities increased
- Water resource planning improved
- Concept of water resource user associations increasingly embraced
- Transboundary sub-catchment plans developed
- Staff have gained international experience
- Recognition of the shared nature of WR and the need to cooperate increased at all levels
- Greater appreciation of agricultural irrigation
- Country-level procedures for the preparation of multipurpose infrastructure projects improved
- Mutual trust between countries increased, they can discuss cooperative management
- Basis for joint cooperative management of the SMM resources established
- Investment projects prepared

Outcome benefits

- **Social and economic benefits from demonstration projects**
- Demonstration projects have contributed to improved incomes
- Water resources are better protected in terms of quality and quantity
- Environmental degradation in SMM watersheds reversed
- Staff employment created by the project
- Increased likelihood of success of national projects

Potential future (enhanced) benefits from improved TW in the SMM basin

Benefits of implementing the 15 development projects in the basin development and investment strategy (WREM, 2008)

Peace and security benefits?

Regional economic integration benefits?

Economic benefits

- Increased population productivity due to reduced burden of disease
- Reduction in health related expenses
- **Increased household income** from sustainable exploitation of wetland products, increased farm productivity, increased livestock and fisheries production, and thriving tourism industry
- Reduction in the economic costs of floods due to enhanced buffering capacity of wetlands, and of flash floods due to increased vegetation cover
- Increased economic production downstream thanks to increased water availability due to adoption of efficient irrigation and water use practices

Social benefits

- Increased social welfare from employment opportunities due to establishment of rural-based industries and financial institutions, and thriving tourism, fisheries and livestock industries
- Increased protein uptake due to increase livestock and fisheries production
- Increased safe water and sanitation coverage
- **Reduction in water related diseases and death**
- Improved educational and development opportunities for girls and women by improving their privacy and enrollment in schools and relieving the burden of fetching water over long distances

Ecosystem benefits

- Improved water quality due to reduction of pollution from improper sanitation facilities and practices, improper solid waste disposal, soil erosion, and poor agricultural practices, and due to enhanced buffering capacity of wetlands
- Reduction in pressure on the catchment's water and land resources due to alternative sources of income.
- **Protected wetlands and vegetation cover** (aquatic and terrestrial ecosystems)

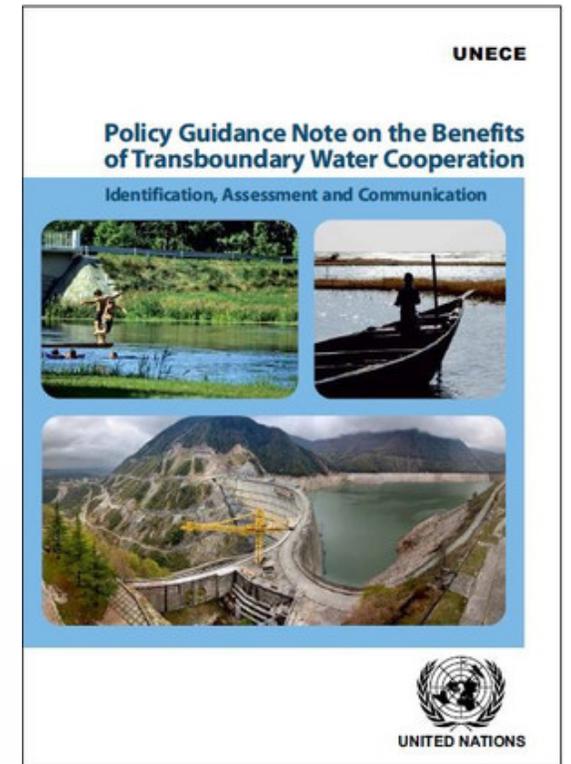
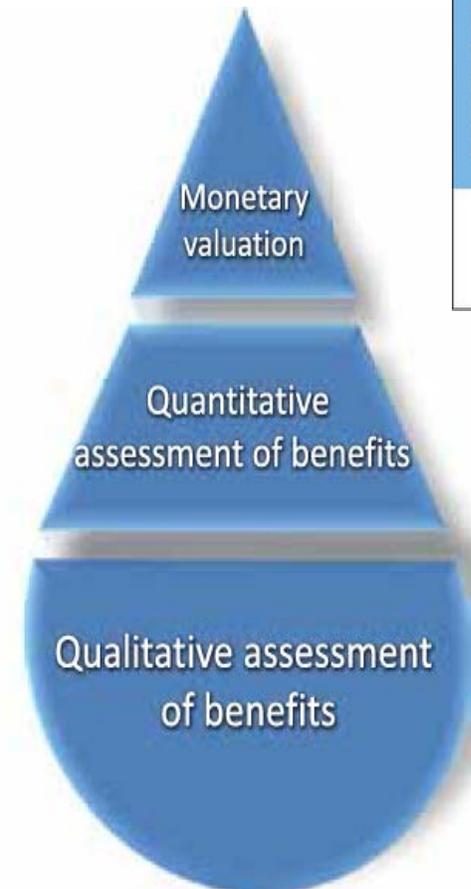
Recommendations for the OES/IGAD project

- Explore the “less traditional” benefits of transboundary water cooperation to help attract support for a **formal institutional framework**
- Identify all the benefits and beneficiaries of specific cooperation activities to support **prioritisation**
- Develop qualitative assessments of benefits to support **prioritisation** through the BOAT tool
- Communicate the benefits of transboundary cooperation projects to attract **national funding**



How to approach a benefits assessment

- Identify the TWC process to be supported
- Design the assessment to match the level of maturity of the TWC process
- Conduct it jointly
- Plan for a transparent, participative assessment process
- Favour integrated assessments
- Select the right geographical and time-scales
- Do not expect to generate monetary values for all benefits



Tailor the assessment to the needs of the cooperation process

<i>Stage of development of the transboundary water cooperation policy process</i>	<i>Needs of the transboundary water cooperation policy process</i>	<i>Focus of the benefit assessment exercise</i>	<i>Main focus of the assessment phase</i>
Pre-initial stage (e.g. basins characterized by political conflict)	Establish the conditions for launching a cooperation process	Identification of mutually beneficial opportunities from shared water resources	Rapid qualitative assessment of key benefits
Initial stage (e.g. basins without international agreement or transboundary coordination body)	Launch of the cooperation process, supported by awareness raising on the need to cooperate	Identification of the full range of the benefits of cooperation	Rapid qualitative assessment of all identified benefits
Medium stage (e.g. negotiations on an agreement ongoing or basins with international agreement, but without coordination body)	Consolidation of the cooperation process through negotiations, strategic planning and the implementation of basic cooperation initiatives (e.g. information sharing)	Broad assessment of the range of benefits of cooperation (including cost of non-cooperation)	In-depth qualitative assessment of all identified benefits Include easily available quantitative and monetary estimates
Advanced stage (e.g. basins with international agreement and coordination body)	Realisation of the potential benefits of cooperation through the implementation of advanced cooperation initiatives (e.g. infrastructure projects, coordinated management instruments)	Assessment of the benefits of independent national projects, joint projects, or a basin programme of measures	Carry out quantitative and monetary valuation, when justified given available resources

Assessing different types of benefits

ECONOMIC

- Greatest scope for monetary valuation (e.g. CBA of infrastructure)
- “Soft” solutions harder to quantify
- Techniques to quantify impacts on national economy very demanding

SOCIAL AND ENVIRONMENTAL

- Less scope for quantification and monetary valuation
- Monetary values likely to be contested

REGIONAL ECONOMIC INTEGRATION

- Largely rely on qualitative assessments
- Some quantification possible (e.g. expansion of regional infrastructure)

PEACE AND SECURITY

- Qualitative assessment (e.g. traffic lights)
- Avoid quantification and monetary valuation

Plan for the rest of the session

- **GROUP WORK**
- What are the past and current benefits of shared waters in the SMM basin? (15 min)
- To what extent can those benefits be enhanced through improved transboundary water cooperation? (15 min)
- **REPORT BACK** (20 min)
- 5 min x 4 groups
- **PLENARY DISCUSSION** (10 min)