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Transboundary Water Management and poverty: an emerging theme

Understanding the impact of Transboundary Water Management (TWM) on poverty in Africa



The TWM and poverty link

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With almost half of the people in sub-Saharan Africa living on less than USD1.25 per day (World Bank, 2011) it is no surprise that the eradication of poverty is an important development goal for African governments and regional economic communities. There is emerging thinking among those implementing, financing and facilitating TWM initiatives that TWM is poverty-relevant and that it would be a missed opportunity if the benefits of TWM to people living in poverty were not realized. This exercise would first require the development of a robust conceptual framework that links TWM and poverty. TWM and poverty are themselves complex multi-dimensional concepts with links that are challenging to decipher. This is an emerging theme of work being pursued by SIWI's Africa Regional Centre and the Transboundary Water Management team at SIWI.

Approaches to understanding TWM-poverty links |

While there have not been concerted efforts to develop a framework that illustrates how TWM impacts poverty, existing work on the themes below provides a starting point.

Grey et al (2009) suggest that countries are driven to cooperate when the net benefits of cooperation are greater than the net benefits of non-cooperation, provided the distribution of the benefits of cooperation are perceived to be fair. These authors go on to define the range of benefits that would drive cooperation as follows.

- "Benefits to the river" such as improved water quality.
- "Benefits from the river" such as energy production.
- "Reduction of costs because of the river" such as flood impacts and tensions between countries.
- "Benefits beyond the river" such as the catalysing of wider cooperation and economic integration.

When the benefits of cooperation are mapped for a given shared watercourse, this would provide a starting point on how benefits can be allocated equitably across society and, eventually, directly or indirectly reduce poverty.

Zeitoun and Jägerskog (2011) suggest that beyond mapping the benefits of cooperation, it is important to understand how the realisation of these benefits by states and also by the water users within states is influenced by their power differentials. Political or material power can act to prevent access to benefits even in situations where there are significant overall gains from TWM cooperation. Rapid economic growth, for example, might be accompanied by an increase in inequality between various groups in society; potentially impacting poverty.

Both Grey et al (2009) and Zeitoun and Jägerskog (2011) lay some conceptual foundations for assessing the impact of TWM on poverty by not only mapping the benefits of cooperation but also assessing how access to these benefits is mediated by the relative power of states or of water users at sub-national level.

Work done by Levene (2010) attempts to define the dimensions of change that are required if TWM is to become more poverty-focused. These dimension are defined as follows:

- Personal: relating to the attitudes and behaviours of TWM policy-makers and practitioners and their conceptual understanding of how (or if) TWM links with poverty reduction;
- Professional: relating to methodology for implementation, monitoring and evaluating of good practice in the field of TWM and poverty linkages; and
- Institutional: relating to the enabling environment for TWM to lead to poverty reduction outcomes.

As opposed to the more conceptual work above, this approach by Levene (2010) is an initial attempt to practically define the design requirements for TWM programmes to become poverty-focused.

The new work suggested in this paper will take the conceptual foundations laid by Grey et al. (2009) and Zeitoun and Jägerskog (2011) forward by illustrating

the pathways through which the benefits or outcomes of TWM affect poverty – positively or negatively. This will lead to the development of a conceptual framework and methodology for assessing the impact of TWM on poverty. The methodology will be tested in the field for a shared watercourse, leading to the refinement of both the methodology and its conceptual underpinnings. The work by Levene (2010) will be useful when developing the practical guidance for incorporating poverty reduction dimensions in TWM programmes or projects.

Poverty reduction in Africa | Poverty evaluations in various regions of Africa have shown differences in the extent and depth of poverty in urban and rural areas and between men and women. Poverty is more widespread and deeper in rural areas and for women, but with increasing incidence in urban areas. The approaches to poverty reduction efforts used by African governments and their international cooperation partners are based on these empirical findings and also on the conceptual understandings of the causes of poverty, the most prominent of which are briefly described below.

In the Rights of the Poor approach (see for example Booth et al, 2001), poverty reduction is seen as improving life conditions that impact the three dimensions of "security", "capacity" (or capabilities) and "opportunities". This concept stresses the importance of all three dimensions, saying that powerlessness and an inability to participate in basic social processes is as important as material deprivation. This suggests that assessing the impacts of TWM on poverty would take into account for example the extent to which cooperation processes have improved poor people's participation in water and other governance processes.

The Sustainable Livelihoods Approach (SLA) and subsequently components of the Sustainable Livelihoods Framework (SLF) that was derived from it also it illustrates the multiple dimensions of poverty (Clark and Carney, 2008). The SLF advances the idea that livelihood strategies (and therefore livelihood outcomes) are an im-

portant way of looking at poverty and are largely influenced by three things: (1) livelihood assets (endowments in human, financial, physical, social and natural capital); (2) a vulnerability context, physical, economic or otherwise that may for example determine economic trends and resilience to livelihood system shocks (including fast-onset natural disasters such as floods and droughts as well as long-term changes in climate); and (3) transforming structures and processes (i.e. institutions and policies that affect poor peoples' lives). The explicit inclusion of the vulnerability context in this framework makes it possible to illustrate the extent to which TWM influences the manifestation of livelihood system shocks such as floods, especially given that greater weather extremes are predicted under most climate change scenarios. Dam synchronisation initiatives between riparian states is one plausible example of how TWM could improve the vulnerability context of poor basin inhabitants. This is especially so given the location of many transboundary rivers – at country borders where mostly rural and sometimes marginalised communities are found. Conversely TWM agreements made between governments usually represent the interests of the respective national capital cities and their constituencies. These interests may be at odds with the population residing in the basin, impacting on their ability to use the resources of the watercourse.

DFID's Strategic Framework for Economic Development for Shared Prosperity and Poverty Reduction (DFID, 2014) emphasizes that no country has significantly reduced poverty without economic growth. The strategy equally recognizes the need to transform growing economies so that they benefit the poor, particularly girls and women. Bicaba et al (2015) in a study by the African Development Bank conclude that sub-Saharan African countries should not only sustain economic growth but ensure that the growth is resilient to shocks, inclusive and green. One approach to understanding TWM and poverty linkages would therefore be to assess if TWM has indirectly contributed to economic growth, especially growth that is sustainable and inclusive.

Middlepits cross-border water supply project: an example of poverty focused TWM?

The Middlepits Cluster is a group of villages in Botswana's water-scarce Kgalagadi region. In April 2015, the Ministers responsible for water in South Africa and Botswana joined the communities from the Middlepits

Cluster to celebrate a cross-border water transfer that is now supplying water from South Africa to Middlepits' five villages. It is conceivable that such a project was enabled or its conceptualisation hastened by

the existence of a transboundary RBO in which both countries are represented – the Orange Senqu Commission (Orasecom), an example of high-level inter-governmental cooperation cascading benefits to the community level.

Lesotho Highlands water project – costs and benefits

The LHWP currently transfers 770 million cubic metres of water from the rural highlands of Lesotho to the urbanized communities living around Johannesburg, South Africa's industrial heartland. The water transfer earns the Government of Lesotho around USD 66

million annually – around 5 per cent of the national GDP and an undoubted benefit to the country. However, rural communities in the highlands have had to curtail some of their traditional livelihood activities in an effort to reduce soil erosion and the resultant sedimentation of the

dams. No longer can they graze their cattle in the high-altitude wetlands, nor can they cultivate crops on steep slopes. In effect the rural population is expected to play a custodian role, with little compensation for a reduction in livelihood opportunities.

Toward a framework for assessing the impact of TWM on poverty

| To date there is no systematic way of planning or capturing the poverty impacts of TWM. SIWI has started a project that will develop such a methodology. The methodology will be tested in the Orange-Senqu River basin, refined and then shared for wider use by other basin organisations and the international development community. Capacity development on assessing the impact of TWM on poverty will then follow. Collaboration is sought from basin organisations responsible for transboundary watercourses, governments, development agencies as well as think tanks in the areas of poverty reduction and TWM.

References

Bicaba, Z., Brixiova Z. and Ncube, M. 2015. Eliminating Extreme Poverty in Africa: Trends, Policies and the Role of International Organizations. Working Paper 23. AFDB.
Booth, D., Berlin, A., Conway, T., Cooksey, B., Ewald, J., Hammer, L., Kiondo, A., Meena, R., Mhina, E., Mtatifikolo, F., Mvungi, A., Rylander, L., Silfverstolpe, A., Tierney, A and Overseas Development Institute. 2001. Fighting Poverty Strategically? Lessons from Swedish Tanzanian Development Co-operation, 1997–2000. Sida.

Clark, J. and Carney, D., 2008. Sustainable Livelihoods Approaches – What have we learnt? A review of DFID's experience with Sustainable Livelihoods, ESRC Research Seminar Paper.
DFID. 2014. Framework for Economic Development for Shared Prosperity and Poverty Reduction. A strategic framework.
Levene. 2010. The Challenge of Transboundary Water Management for Poverty Reduction. Strengths, weaknesses, opportunities and constraints to SIDA supporting Transboundary Water Management for Poverty Reduction. Report produced for Sida. Praxis Group. UK.
World Bank. 2011. World Development Indicators. http://data.worldbank.org/topic/poverty#tp_wdi. Accessed 06 August 2015.
Zeitoun, M., Jägerskog, A. 2011. Addressing Power Asymmetry: How Transboundary Water Management May Serve to Reduce Poverty. Report Nr. 29. SIWI, Stockholm.