

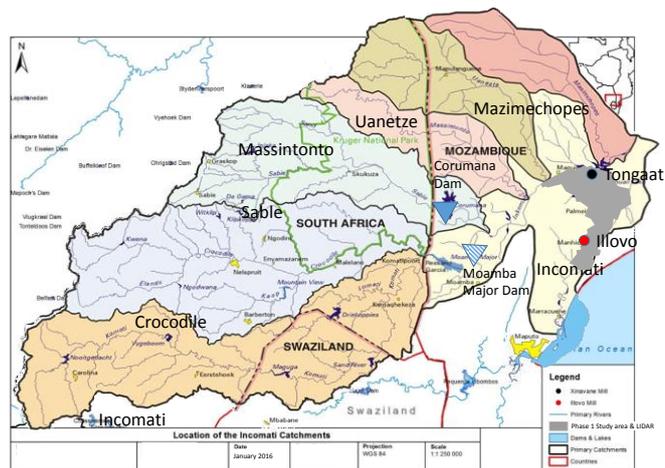
Managing Flood Risk in the Incomati Basin: lessons from enhanced public private cooperation for the region

CRIDF is working with both the public and private sector in the Incomati River basin to mobilise funds to more equitably share and manage flood risk. Using these lessons learned CRIDF is developing tools to roll out a new approach to building the climate resilience of small scale outgrowers in the region

Background

CRIDF has been instrumental in changing the approach of flood risk management and pro-poor climate resilience along the Incomati River in Mozambique. It has achieved this by promoting a more balanced distribution of current and future flood risk among key stakeholders.

Figure: Incomati basin, member states, catchments, key dams in Mozambique, LiDAR area and location of Illovo and Tongaat Sugar estates



CRIDF's multidimensional and integrated approach has used infrastructure as an opening to significantly improve the climate resilience of poor small scale outgrowers living in the lower Incomati and used that as a means to: create a de facto basin flood management committee; facilitate enhanced cooperation between public and private actors; mobilise significant funds, and roll out a series of strategic interventions more widely in the region. The interventions will include: developing real time flood forecasting, thus increasing cooperation between basin countries; detailed flood modelling and economic analysis of infrastructure options; and developing a framework for dam operation and working with Illovo sugar to roll-out a more sophisticated risk sharing approach with its outgrowers throughout the region.

Flood risk in the Lower Incomati

The two main private sector stakeholders along the Incomati floodplain within Mozambique are the sugar estates of Illovo Sugar and Tongaat Hulett, with staff of approximately 5,000 and 10,000 people respectively. Historically, Illovo and Tongaat built flood banks to protect their estates without fully understanding the upstream and downstream flooding impacts. The poor communities (the outgrowers) who grow sugar cane outside of the sugar estates to supply these companies were however adversely affected by flooding and were very vulnerable to increasing flood risk as a result of climate change.

CRIDF was initially approached by Illovo for help to reduce the vulnerability of their outgrowers to flooding. Realising that success required the cooperation of multiple stakeholders, CRIDF's strategy was to establish a public-private arrangement through setting up a programme steering committee (PSC) chaired by ARA-Sul (the government body managing river operations) with the sugar estates as key stakeholders. As the project evolved the steering group gained momentum, and now includes the national Mozambican Roads Agency (ANE), the Manhica Local District Planning and Infrastructure division and EDM, the Mozambican electricity Company. This has become a de-facto basin flood management committee for the Lower Incomati, with a Memorandum of Understanding (MoU) having been signed by the main stakeholders.

The innovation was in showing that a public-private consultative approach will have benefits for all parties. Using a 2D hydraulic river flood model, CRIDF demonstrated the economic and financial benefits that sharing the flood risk will create for all parties. This included bringing stakeholders along the journey with improved communication and cooperation between parties and the determination of

flood risk management (FRM) infrastructure options. As a spin-off, ANE will be using the model to assist them in road design to reduce flooding impacts on local communities.

With the MoU signed and the partnership now entrenched, the project component involving the LiDAR survey of approximately 1140 km² along the Lower Incomati was completed last year with contributions from the sugar estates. The LiDAR survey is now in the public domain through ARA-Sul which allows Government Departments, Non-Government Organisations and sugar estates to support outgrowers with improved irrigation planning due to the more granular information offered.

Mobilising finance

As a result of CRIDFs work Illovo diverted both their own and EU funds away from building hard defences towards a more climate resilient solution of combining infrastructure with allowing areas to flood, based on CRIDFs modelling work, resulting in a more balanced distribution of flood risk amongst stakeholders. This led to CRIDF mobilising £ 4.7M for improved climate resilience for the poor in the lower Incomati. Stephen de la Harpe, General Manager of the Illovo Sugar estate at Maragra in the Lower Incomati, said *“I’m delighted to hear of the on-going support coming from DFID, largely due to the fine effort from you and your team. I’m sure your combined contribution to our project and the positive meaningful impact this has can’t be over stated”*.

Influencing change at the basin level

Due to the success of the above model, CRIDF is currently undertaking subsequent work (Phases 2 and 3) in scaling up to a regional, transboundary approach of promoting pro-poor climate resilience strengthening. This will be through a Real Time Flood Forecasting System for the member states, as per their request, to enable a more informed understanding of potential flood predictions and likely impact on flooding, as well as a dam operation framework examining potential dam operation rules for existing and proposed dams to improve flood risk management in the basin. This is enhancing cooperation and progressing dialogue among the three member states within the Incomati Basin namely South Africa, Swaziland and Mozambique. The Incomati Basin area is 47,000m² with between 250,000 and 500,000 people who are becoming more resilient to flooding.

Influencing change at a corporate level throughout the region - Assisting Illovo’s response

Based on the stakeholder relations built with Illovo in the lower Incomati, CRIDF conceptualised a project to improve the resilience of smallholder sugar outgrowers throughout the region. The aim is to work with Illovo to influence its and other agribusinesses’ sustainability and risk strategies so that they will be better able to guide a balanced distribution of risks and benefits with the poor outgrowers. Illovo has operations in six countries- namely Malawi, Mozambique, South Africa, Swaziland, Tanzania and Zambia - five of which are addressed in the CRIDF study.

CRIDF has developed a climate vulnerability assessment tool to help outgrowers, and the main Illovo estates better understand the potentially different impacts of climate change on each of them at sites throughout the region. In preparing the tool which was preceded by site and catchment specific vulnerabilities’ assessments as well as the opportunities for managing those vulnerabilities, it was recognised that the vulnerabilities experienced by smallholder farmers are inherent in the vulnerabilities in the local communities they come from. Investigations of the opportunities for responding to these risks and building the resilience of the outgrowers and main estates followed and included opportunities for diversifying crops (applicable to the smallholder farmers), opportunities for infrastructure development (including improving irrigation efficiency through the adoption of other irrigation methods), shifts in institutional or managerial arrangements, and others.

Strategic Significance

The Smallholder Farmer Associations (SFAs) associated with Illovo’s schemes in the SADC region number several thousand and the economic multipliers through associated business outsourcing (cane transport, cane harvest and other support systems), and formal employment offered by the mills, mean that the number of beneficiaries from the SFA schemes is likely to be upwards of 100,000 households. Consequently CRIDFs support to a large non water sector user of water offers significant opportunities to scale up the CRIDF approach and reach a significant number of people. As a next step, outgrower strategies for each of the focus sites will be developed. In addition, brief project concept notes presenting a business plan for a specific project (per site) will also be developed. Finally, key climate risk-related recommendations for Illovo’s main estates – oriented around their outgrowers will also be developed. CRIDF will also support Illovo at a corporate level to development

an outgrower strategy and to better integrate the consideration of outgrowers in their corporate risk assessment.