



THE PANGANI RIVER BASIN MANAGEMENT PROJECT

Brief published by the Pangani River Basin Management Project

The Pangani River Basin Management Project (PRBMP) is generating technical information and developing participatory forums to strengthen Integrated Water Resources Management in the Pangani Basin, including mainstreaming climate change, to support the equitable provision and wise governance of freshwater for livelihoods and environment for current and future generations.

The Project is based on Tanzania's National Water Policy (2002) and the Water Resource Management Act (2009) which promotes integrated water resource management principles. The policy and legislation recommend that water be managed at the basin level in a participatory and equitable way that emphasizes sustainability of the water source.

KEY FACTS AND CHALLENGES

- The Pangani River Basin (PRB) covers an area of 43,650 km².
- The administrative Pangani Basin has an estimated population of about 3.4 million; with about 2.6 million within the Pangani River Basin.
- 80% of the population relies either directly or indirectly on agriculture for their livelihoods.
- There is a large concentration of pastoral communities, who are nomadic and depend on livestock for their livelihoods and are forced to move constantly in search of water and pasture.

AIM OF PROJECT

Support the equitable provision and wise governance of freshwater for livelihoods and environment for current and future generations.

- Water security in the Basin is characterized by frequent cycles of droughts and floods, which exposes the vulnerability of the population, government and economy to climate variability and change.
- There is increasing demand for water due to population and economic growth.
- Different sectors, as well as upstream and downstream users have conflicts over access to water resources.
- Environmental degradation is an increasing problem due to reduction in water flows necessary to sustain ecological processes and sustainable livelihood practices.

FLOWS FOR THE FUTURE

The Project has undertaken an Integrated Flow Assessment with the Pangani Basin Water Board (PBWB), to develop an understanding of the hydrology of the river basin, the flow-related nature and functioning of the river ecosystem and the links between the ecosystem and the social and economic values of the river's resources. With this information, a **State of the Basin Report** has been produced in English and Kiswahili which collected and synthesized present knowledge on the Pangani River system and its users.

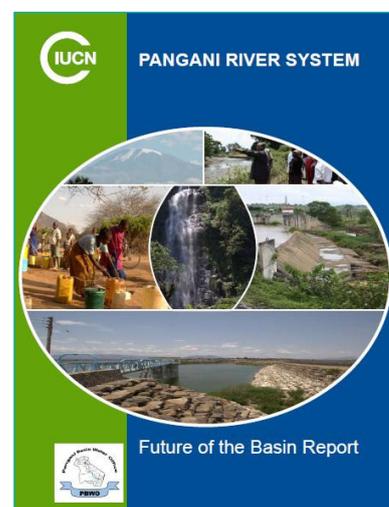
The **Future of the Basin Report** outlines the approach used to develop scenarios and describes five of them that are quite different



The Pangani River basin

from each other. This will help the government and other stakeholders to understand what the future could be like, and to discuss and negotiate on the future that they wish for.

Building on this information, stakeholders are now gaining understanding of social, economic and environmental trade-offs for different water allocations through the development of a number of scenarios.



(Continued overleaf)

EMPOWERING WATER USERS

Based on Tanzanian decentralization policy, in which mandates and management responsibilities are devolved to lower levels of governance, the water policies and legislation recommended that water be managed at the basin level and (sub) catchment Water User Associations be established. The PRBMP is designing and piloting the establishment of the Kikuletwa catchment Water Users Association in the Pangani River Basin. The process is empowering communities and local government to manage conflicts over water resources allocation between upstream and downstream, and between different users such as farmers and pastoralists.

The establishment of catchment associations is considered as a mechanism that will enhance conflict resolution in Pangani basin which is facing challenges of increasing water demands, straining an already overstretched water resource that is also being impacted by climate change. The association aims to reconcile these demands and raise awareness on the importance of integrated water resources management that balances the demands of all users.

ADAPTING TO CLIMATE CHANGE

Alongside the ongoing creation of Water User Associations, the PBWB is now planning its water future with a view to making the Pangani and its people more resilient to the growing threat of water scarcity.

State of the art climate modeling of the Basin is being undertaken with international experts. This is in parallel with community level

vulnerability assessments using a variety of tools, including CRiSTAL (Community-based Risk Screening Adaptation and Livelihood).

CRiSTAL promotes integration of risk reduction and climate change adaptation into community-level projects. It can also be used to identify activities that can be undertaken to enable communities to adapt to climate change hazards. The information from the vulnerability assessments is being used to identify and implement adaptation activities in the Basin.

FUTURE OF THE BASIN

Basin offices throughout Tanzania, including the PBWB, are putting together Integrated Water Resource Management (IWRM) Plans to map a sustainable way forward.

The PRBMP has produced valuable information to guide the PBWB in developing water resources which support nature as well as people and their livelihoods. In addition, the project is generating technical information through a groundwater assessment to support the development of the IWRM plan.

The Project has also laid the foundation through awareness raising and building capacity so



Cattle looking for water in Ruvu

that stakeholders are empowered to implement and own the plan.

SUPPORT

The Pangani Basin Water Board is implementing the project with technical assistance from IUCN (International Union for Conservation of Nature), the Netherlands Development Organization (SNV) and the local NGO PAMOJA. The project is financially supported by the IUCN Water & Nature Initiative, the Government of Tanzania, the European Commission through a grant from the EU-ACP Water Facility, and the Global Environment Facility through UNDP.

Additional components complementing the project are being supported by the Climate Change and Development Project - a Pan-African project funded by the Ministry for Foreign Affairs of Finland and implemented by IUCN and the Global Water Initiative (GWI), which is a partnership in 3 regions and 13 countries funded by the Howard G. Buffet Foundation.



The Pangani Basin Water Board is implementing the Pangani River Basin Management Project with technical assistance from IUCN (International Union for Conservation of Nature), SNV - Netherlands Development Organization and the local NGO PAMOJA. The project is financially supported by the IUCN Water & Nature Initiative, the Government of Tanzania, the European Commission through a grant from the EU-ACP Water Facility, and the Global Environment Facility through UNDP.

For more information: www.panganibasin.com and www.iucn.org/esaro . Contacts: Pangani Basin Water Officer – info@panganibasin.com or IUCN ESARO - info.esaro@iucn.org