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CASE STUDY

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WATER FLOWS FROM KENYA TO TANZANIA

Doing the groundwork for a transboundary flow agreement between the two countries

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Map of the Mara river basin

Introduction

The Mara river basin is an important hydrological system that serves Kenya and Tanzania and also provides valuable flow to Lake Victoria, the second largest freshwater lake in the world and the headwaters of the Nile. The Mara rises in the Mau forests of Kenya, flows through the rangelands around the renowned Maasai Mara and Serengeti reserves. In Tanzania it forms a floodplain wetland – the Mara wetland – before discharging into Lake Victoria in Tanzania. Around 65% of the river basin is located in Kenya and 35% in Tanzania.

The Mara is important for many socio-economic activities including: small scale-farming to support livelihoods; tea and wheat production for export; and safari tourism. Unfortunately, growing and competing water demands and unsustainable land management are threatening the river’s health and future water security. This, coupled with uncoordinated water resources management between Kenya and Tanzania, prompted WWF-Kenya to initiate a transboundary plan for allocating finite water to different uses.

What problem are we trying to address?

With population and economic growth there is increasing demand on the Mara's water resources from livestock rearing, domestic use, tourist lodges and camps, irrigation and gold mining. Large-scale irrigated farms are being developed, tourism in the Maasai Mara is expanding and towns are growing quickly.

Increased abstraction is likely to severely degrade the riverine ecosystem, impinging on people's basic needs as well as profoundly affecting the basin's economy. Such impacts are already being seen in the dry season, when many are faced with depleting river flows and in some places there have been attacks relating to water use. In 2009 the Mara River reached its lowest flow and almost stopped flowing. Such an occurrence is detrimental to the lives and livelihoods of the local population. Reductions in river flow are also likely to affect the migration cycle of wildebeest in the Maasai Mara-Serengeti ecosystem. Disruption of such a significant natural process will change the entire structure of the ecosystem, as well as severely impacting the tourism industry that is so significant to Kenya's and Tanzania's economies.¹

Uncoordinated water resources management between Kenya and Tanzania compounds growing water demands. Each country has its own Water Act and other legislation. In addition, the relevant institutions (Kenya's Water Resources Management Authority - WRMA – and Tanzania's Lake Victoria Basin Water Board – LVBWB) only cover their own areas of jurisdiction and make water allocation plans independently. Moreover, there is no agreement for the transboundary flow of the Mara River between Kenya and Tanzania. Unless an agreement is negotiated soon there is a real danger that the cross-border dry season flow will be reduced to a trickle, potentially leading to a dispute.

Both Kenyan and Tanzanian water laws call for determination and protection of reserve flows, defined as the quantity and quality of water necessary to satisfy basic human needs and sustain aquatic ecosystems. Environmental flow assessments have been carried out with WWF's support for both the Kenyan and Tanzanian sides, but despite this neither WRMA nor LVBWB have mechanisms to safeguard reserve flows in the Mara River and water users continue to abstract water without consideration of these reserve flows.

Addressing these issues requires ascertaining sustainable water abstraction limits in both countries for existing and future developments, and securing an agreement for the flow between the two countries.



Mara River Upper Catchment © Jonathan Caramanus / Green Renaissance / WWF-UK



Burchell's zebras crossing the Mara river during migration. Maasai Mara National Reserve, Kenya © Martin Harvey / WWF



The Mara river in the Maasai Mara Reserve © Kate Holt / WWF-UK

What did we do?

Responding to these issues, WWF-Kenya initiated the collection of evidence to instigate the development of a participative transboundary Water Allocation Plan (WAP) and support its implementation to safeguard environmental flows in the Mara.

Water allocation is the process of deciding who is entitled to take or use available water resources. It involves understanding how much water is available and then negotiating the amount each water user can access – now and under future development scenarios. WWF's theory of change is that if future requirements for water and environmental flows in each country can be defined and agreed by multiple water users and stakeholders, then effective allocation of water in each country should ensue. Moreover, if future water requirements in each country can be properly substantiated, and water user representatives and decision-makers from Tanzania and Kenya are brought together in a participative process, a flow agreement can be negotiated between the two countries.

WWF-Kenya instigated the transboundary WAP process by providing evidence to the two key institutions on both sides: the Kenyan WRMA and the Tanzanian LVBWB, under the auspices of the Lake Victoria Basin Commission (LVBC) which comes under the Nile Equatorial Lakes Subsidiary Action Program (NELSAP). LVBC has a transboundary mandate and operates under the East African Community which is recognised by both countries: ultimately, they will own the WAP, so it was critical to involve them. As a result of joint meetings and the critical role played by WWF, a consensus has been reached by all these key stakeholders on the need for the participatory development of a basin-wide transboundary WAP, rather than having each country developing individual plans. It was also agreed that a common methodology would be used by the two countries.

In September 2015 a MoU was signed between the governments of Kenya and Tanzania for 'Joint Water Resources Management of the Transboundary Mara River Basin.' The two governments agreed to "cooperate in the area of sustainable development, management and equitable utilization of water resources including, water allocation, water supply and sanitation, capacity building, data and information sharing, research and development." Three hierarchically structured joint management committees have been established to facilitate implementation of the MoU:

- Joint Steering Committee composed of Permanent/Principal Secretaries.
- Joint Technical Committee composed of Directors or Senior Officials.
- Joint Implementation Committee composed of Officers.

In November 2015, the Kenyan WRMA, as part of the Mau Mara Serengeti (MaMaSe) Sustainable Water Initiative funded by the Dutch embassy, began developing a WAP for the Kenyan portion of the Mara, with technical assistance from UNESCO-IHE. This has involved abstraction surveys and assessment of future demands.

It has always been acknowledged that such work should extend to the Tanzanian side of the basin, but this was not immediately possible due to geographical constraints of funding. Recognizing the urgency and necessity of initiating WAP activities in Tanzania to complement those in Kenya, WWF has now combined resources with two other programmes to support the Tanzania effort: a GIZ-funded programme and the USAID PREPARED programme (Planning for Resilience in East Africa through Policy, Adaptation, Research and Economic Development).

Impacts and achievements

- With WWF's support, environmental flow assessments have been conducted on each side of the basin.
- As a result of joint meetings convened by WWF, and the critical role played by WWF, a consensus was reached by all the key stakeholders to develop a transboundary WAP.
- LVBC has taken up the role of convening all transboundary engagements between Kenya and Tanzania to avoid any misunderstandings or conflicts between the two states. As a result there is improved cohesion between stakeholders on both sides of the basin.
- WWF has now combined resources with two other programmes (a GIZ-funded programme and USAID PREPARED) to undertake the necessary technical assessments on the Tanzanian side to inform the development of the transboundary WAP.



The Mara's local water resource management institutions are legislatively-mandated groups of water users, riparian land owners and other stakeholders operating at sub-catchment level.

Kenyan legislation makes provision for Water Resource User Associations (WRUAs), while in Tanzania the equivalent are Water User Associations (WUAs).

Where will we go from here?

The key tasks for undertaking the Tanzanian assessments and then developing a transboundary WAP have been set out in a Statement of Work with the other partners. WWF's role is to lead on institutional mobilisation, stakeholder engagement, and overall coordination of the activities – bringing in much-needed transboundary WAP expertise and experience.

The first task is to develop a stakeholder map and stakeholder engagement plan that will guide the consultative process and participation of various stages of the WAP development. A key element of stakeholder engagement will be linking the Kenya Water Resource Users Forum (which represents all the 23 WRUAs on the Kenyan side – see margin box) with the Tanzania Catchment Resource Committee (under formation, which represents the 6 WUAs on the Tanzanian side) to form a Transboundary Water Users Forum. This institution will be responsible for monitoring the implementation of the transboundary WAP because it has a transboundary voice and represents stakeholders from both countries.

Meanwhile, the other partners will focus on the technical assessments in Tanzania required for developing the WAP (including compilation of available data, water availability assessments, determination of the reserve flow, water use and demand assessments, water balance and consideration of development scenarios); as well as the preparation of the transboundary WAP. WWF will coordinate these activities, with a view to completing the transboundary WAP by 2018.

FOR MORE INFORMATION

Contact the WWF-Kenya team

Contact the WWF-Tanzania team

Resources

¹Lake Victoria Basin Commission of the East African Community and WWF Eastern and Southern Africa Regional Programme Office (WWF-ESARPO). 2010. Assessing Reserve Flows for the Mara River – Kenya and Tanzania. Nairobi and Kisumu, Kenya. Available from: http://awsassets.panda.org/downloads/environmental_flows_assessment_mara_1.pdf



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To stop the degradation of the planet's natural environment and to build a future in which humans live in harmony with nature.

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