



# What women and men want: Considering gender for successful, sustainable land management programs

## Lessons learned from the Nairobi Water Fund

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### Key messages

- ▶ Women and men having different access to assets results in barriers when implementing sustainable land management (SLM).
- ▶ This can be 'corrected' by building understanding of gender dynamics amongst extension agency and project implementation staff.
- ▶ Riparian zone management is the most challenging and least adopted SLM practice.
- ▶ Riparian buffer zones are a high priority for both the Nairobi Water Fund (NWF) and farmers' livelihoods.

### Project background

This case study explores the different barriers that men and women face when implementing sustainable land management (SLM) under the Nairobi Water Fund (NWF) in Kenya. The NWF is a public-private partnership, designed by The Nature Conservancy (TNC) as a payment for ecosystem services (PES) scheme, under which farmers in the Upper Tana River basin receive in-kind payments for implementing sustainable land management practices. They include constructing water pans (see Figure 1) to reduce water extractions from the river in the dry season, building terraces to promote water infiltration and reduce soil erosion, or planting grass strips to reduce erosion when livestock are being fed. SLM also includes the promotion of agroforestry and a suite of riparian zone management practices.

The NWF was set up in 2015 with an initial USD 10 million grant from the Global Environment Facility (GEF), and now receives additional contributions from private businesses in Nairobi that rely on the availability of clean and sufficient water. The NWF is a particularly interesting and relevant case study that serves as a role model to develop ten additional water funds in Africa. Without a clear understanding of gender inequalities, and if the NWF model is copied without gender 'corrections', then gendered barriers can also be reproduced in the planned new water funds.

Payments to farmers are in the form of water pan liners, grass and tree seedlings, as well as expert advice on riparian zone management and location for terraces. These payments are intended to help farmers manage land more sustainably, thus safeguarding the supply of water to the city of

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**Figure 1. Example of a water pan in the NWF region (Photo by Ravic Nijbroek).**

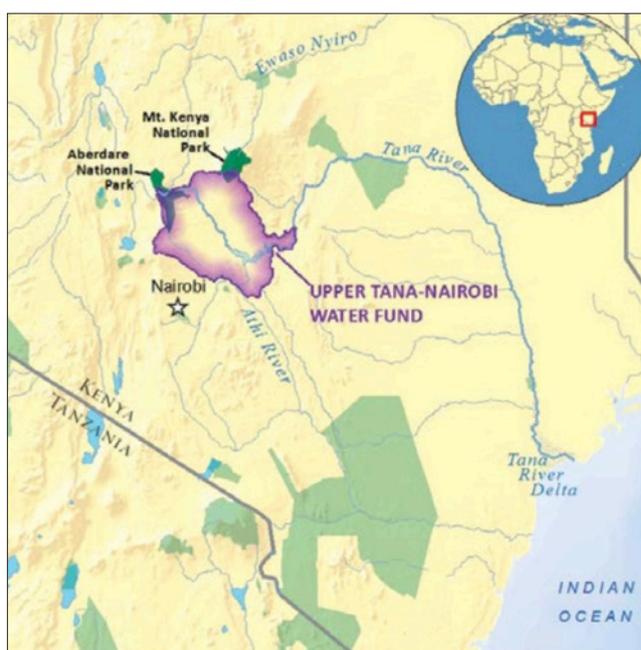
The cost of the pan liner is shared between the farmer and the NWF, while technical advice on its placement is provided by the NWF. The farmer is responsible for building the pan. This pan is filled in the rainy season, and the water is used in the dry season, allowing the farmer to increase crop production, while reducing pressure on the water supply then. Poorer households and female-headed households often lack the labor requirements to build water pans or the financial means to hire labor.

Nairobi. While the NWF currently measures gender impacts as one component of the Multidimensional Poverty Assessment Tool (MPAT) (MPAT User's Guide, 2014), it does not assess gendered barriers to adoption of SLM. Without understanding these barriers, the Fund cannot practice adaptive management and make changes in the way SLM is introduced to farmers, thus jeopardizing its effectiveness.

## Research methods

Fieldwork for this research was completed in December 2017 in Githambara, a part of the Maragua River watershed, approximately 12 months after the NWF activities started (Figure 2). Data collection included participant observation, focus group discussions with men and women separately, individual interviews in 24 households, and several farm tours. In each household, the lead male and lead female decision makers were interviewed. In total, 22 women and 20 men were interviewed. Three extension officers who work with the NWF to implement activities, initially helped the researchers to access respondents. While this was not originally planned in the research design, they actively listened during focus groups and interviews and asked questions after. The researchers realized that extension agents'

understanding of gender issues was crucial and started engaging the extension workers more actively in the data collection. This accidental research design proved to be extremely useful to rapidly 'gender correct' the NWF activities.



**Figure 2. The Upper Tana River Basin, location of the Nairobi Water Fund activities. Source: www.TNC.org**

## Gendered barriers to sustainable land management

Our research on gender barriers to implementing sustainable land management (SLM) has identified shortcomings that can hinder the success of the Fund:

- Men usually make land use decisions in this region. In general, women are ‘assigned’ small plots, usually for growing vegetables for household consumption, while men control the largest fields which are used for cash crops. In such situations, women’s limited control over land use limits their ability to implement space-consuming SLM practices such as water pans. Women’s incentives for participating are also reduced when they don’t receive the benefits of the SLM, e.g. irrigation water from the pans for their plots.
- Women have greater financial constraints than men because men control earnings from cash crops and tea (in the study region), which represents a challenge, for example, when having to hire labor for water pan construction. This challenge is more pronounced with female-headed households where labor constraints are greater and construction of the pan is 100% completed by hired labor.
- Women look after livestock in this region, and they are responsible for planting grass seedlings that can produce feed. Women expressed concerns that while other resources were often readily supplied by the Fund, they often had to wait a long time for grass seedlings. Some women went outside the project suppliers to find Napier grass.
- Conflicting priorities between and among farmers and the NWF is a challenge. Riparian land management involves creating a buffer zone of vegetation adjacent to the tributaries of the Upper Tana River. This buffer zone would exclude agricultural production, however this same zone is also the most productive “because that’s where the water is” (Interview, 2017). Riparian buffer zones thus create conflict with women’s responsibilities to provide food for the family and men’s financial responsibilities.
- Despite technical assistance being provided for the construction of water pans, farmers sometimes struggle with technical details during construction. While extension workers service many farmers in one region, they try to be available on demand, but this is not

possible. Their absence when farmers are ready to construct water pans delays the construction and subsequently the collection of water.

- Because customary rules typically dictate that men control land assets, NWF technicians tend to agree with men on where to place water pans. This can create friction between men and women and cause delays. The same holds true for when women are asked by implementers to make decisions, which distresses them if men are not present.

## Recommendations

- The Fund should train its field operators in gender relations pertaining to SLM and on how to meaningfully consult both men and women in all planning phases, to avoid exacerbating or reproducing gender inequalities in SLM practice.
- To increase the likelihood of adoption, the Fund should ensure timely delivery of inputs, such as grass seedlings, so as to strengthen community support for the Fund’s activities.
- In addition, female-headed households and poorer households are particularly vulnerable and need to hire labor to implement water pans and terraces. The Fund should consider providing additional assistance to such households.
- Existing farm plans should be linked to a wider watershed plan that is co-developed with local men and women, together and in separate meetings, to consider their preferences and abilities.

## Acknowledgements

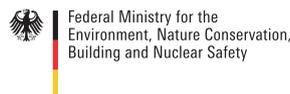
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**About this brief series: Lessons for gender-responsive landscape restoration**

Forest Landscape Restoration (FLR) aims to achieve ecological integrity and enhance human well-being in deforested or degraded landscapes. Evidence shows that addressing gender equality and women’s rights is critical for addressing this dual objective. Against this backdrop, CIFOR and a number of partners hosted a Global Landscapes Forum workshop on FLR and gender equality in Nairobi, Kenya in November 2017. The objective of the workshop was to identify and discuss experiences, opportunities and challenges to advancing gender-responsive FLR in East African countries, as well as to join together various stakeholders working at the interface of gender and FLR as a community of practice. This brief set is a tangible outcome of this collaboration, featuring a number of useful lessons and recommendations rooted in the experience and expertise of partners in civil society, multilateral organizations, research community and private sector – all working in different ways to enhance the gender-responsiveness of restoration efforts.



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The CGIAR Research Program on Forests, Trees and Agroforestry (FTA) is the world’s largest research for development program to enhance the role of forests, trees and agroforestry in sustainable development and food security and to address climate change. CIFOR leads FTA in partnership with Bioversity International, CATIE, CIRAD, ICRAF, INBAR and TBI. FTA is supported by the CGIAR Fund Donors: [on.cgiar.org/CGIARFundDonors](http://on.cgiar.org/CGIARFundDonors)

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