

Source Water Protection; What it takes to have a thriving nature in Upper Tana, Kenya

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For decades, forests on steep hillsides in the Upper Tana catchment have been slowly converted to agriculture. Reduced soil productivity from erosion and competition for space has forced farmers to cultivate on even steeper and steeper slopes. And during the rainy season, the soil is quickly washed into the rivers reducing the productivity of farmlands and clogging water distribution and power generation facilities with sediments.

But these issues don't remain in the watershed. The Tana River supplies 95% of drinking water to more than 9 million people including 4 million people downstream in the capital city of Nairobi. With unreliable water supply, many people are forced to buy jerrycans of water just to have enough to drink, cook and wash.

Research has indicated that water security will become more challenging as climate change brings increasingly unpredictable rainfall and the city's population continues to grow.

Through the Upper Tana Nairobi Water Fund, The Nature Conservancy (TNC) is bringing diverse partners together to solve these challenges through a win-win model – the Water Fund



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Water funds are founded on the principle that, it's cheaper to prevent problems at the source than it is to address them further downstream. Urban water users invest in upstream watershed conservation for the benefit of farmers, businesses and Kenyans throughout the region.

In the Upper Tana Watershed, the Nairobi Water Fund, Sustainable Agriculture Community Development Program (SACDEP), Caritas-Murang'a and the County governments are working with more than 44,000 farmers and are on course to reach 50,000 farmers by 2022. This is achieved by providing the skills, training, and resources needed to conserve water, reduce soil runoff and improve crop productivity.

In just the first 5 years, the project helped farmers install more than 15,000 rainwater harvesting pans and more than 596 kilometers of terraces and 988 km of grass strips. Presently, 100,000 acres of land in the catchment are under sustainable land management practices with over 3.6 million trees being planted to date. To date, more than 1.3 million fruit trees have been planted. These activities are not only contributing to improved water quality and quantity for downstream water users but are also improving terrestrial and aquatic biodiversity of the watershed.



Photo: Terraces stabilized with Napier Grass ©TNC

Jane Kabugi, for instance, has learned how to dig trenches and plant Napier grass to prevent soil erosion on her steep hillside farm. Stanley Kaminju has installed a water pan to store water for irrigation. Now he can grow and sell vegetables in the dry season when he can fetch a higher price.

“We can say now we are food secure using the waterpans given to us by TNC. We are very grateful that we are very stable farmers

now and our lives have been transformed”, Stanley.

The Upper Tana Nairobi Water Fund is effected by NGOs, public utilities, companies, and private investors coming together and committing to make watershed conservation a priority. They include the National and County Governments, GEF, IFAD Caterpillar Foundation, Coca-Cola Foundation, EABL, Pentair, CIAT, FRIGOKEN, KenGen, WRA, and the local communities.

Their investments and land management are expected to provide 2 dollars in benefits for every dollar invested over 30 years.

The Coca-Cola company has products whose more than 98% of the raw materials is water. The company donated USD 150,000 to The Nature Conservancy towards source water protection not only for industrial use but also for domestic use of the company’s products consumers who live along that chain.

While the Nairobi Water Fund is the first of its kind in Africa, it builds on the expertise The Nature Conservancy’s scientists have gained from designing more than 30 water funds around the world.

The Upper Tana Nairobi Water Fund serves as a model to leaders across the continent as they look for a solution to growing challenges such as water scarcity, population growth, and climate change.

“What excites me most about this Water Fund and working with TNC is the fact that the impact can be very great. When you look at Nairobi water supply today and find out there is a shortfall of about 30%, and if we can just be able to increase that by the work that we are doing to reduce that deficit by even 5%, the impact is huge.”, Eddie Njoroge, President Nairobi Water Fund and International Organization for Standardization (ISO).

By investing and working to conserve and protect our sources of water, we can make a lasting difference for people, cultures and thriving biodiversity in Kenya and across Africa.