

A photograph of a waterfall cascading over rocks, with a clear glass of water in the foreground resting on a rock. The scene is set in a natural, wooded environment.

Upper Tana Nairobi Water Fund Trust (Project)

GEF-ECW Field Site Visits Briefings

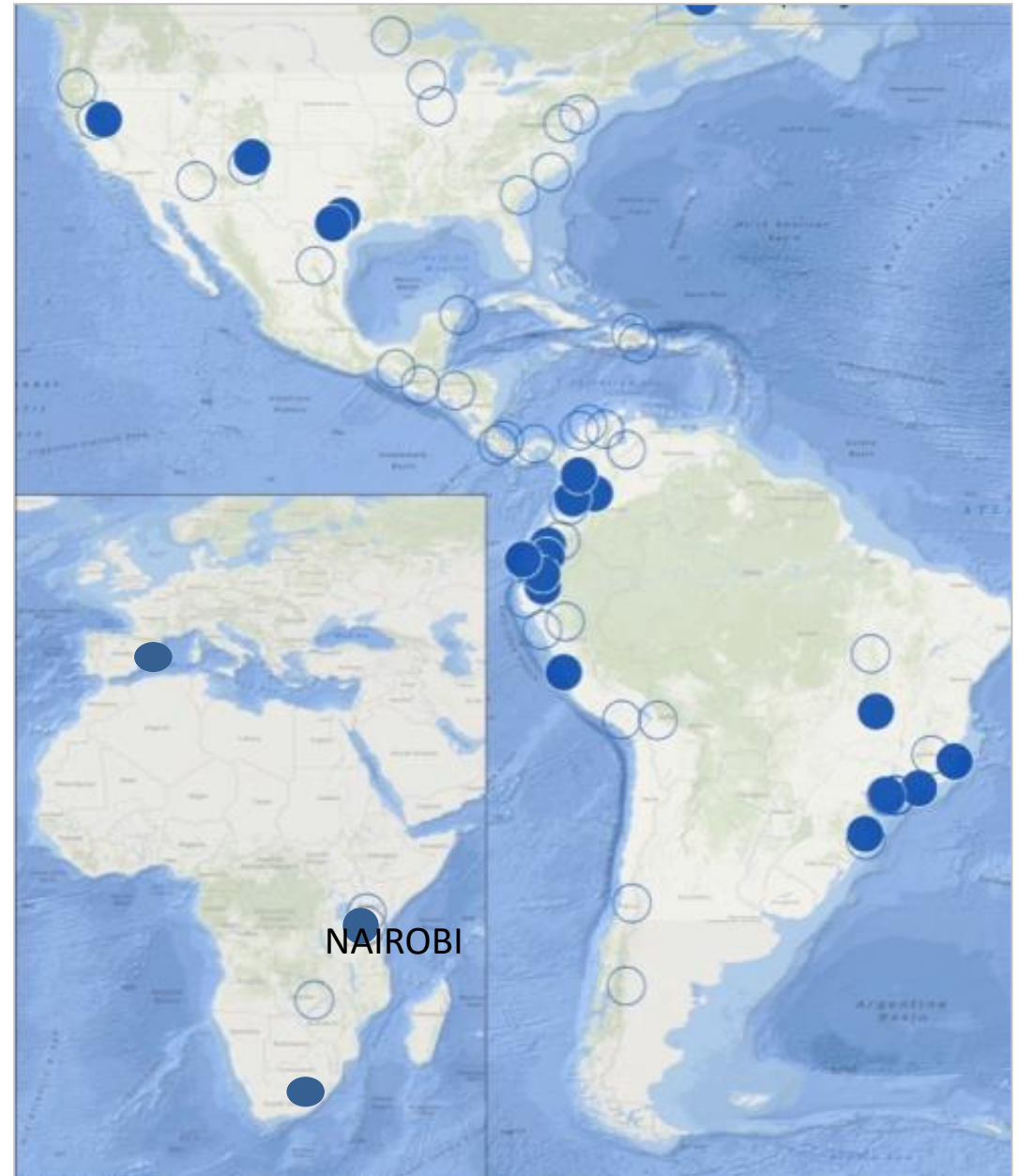
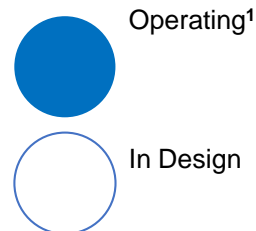
CROWNE Hotel, Nairobi

19th February 2020

Anthony Kariuki, General Manager, UTNWF

ABOUT TNC

- Global Conservation Organization
- 65 Years
- 1 million members
- 600 Scientists
- 120 million acres conserved
- 72 Countries
- 10 years in Africa



Our work in Africa

- Where We Work
- TNC Africa Program Projects

71.4 million acres

- 90 TNC Africa staff members
- 74% are African
- 800 Partner staff
- \$25 M Annual operating budget



WHERE WE WORK

- One Million Hectares of forest and farmlands

9 MILLION PEOPLE

- 4 million in Nairobi
- 5 million in watershed

65% OF KENYA'S HYDROPOWER

- Cheapest source of power
- Lowest carbon emission

TWO WATER TOWERS

- Iconic Kenyan wildlife
- Endangered species like mountain bongo antelopes

OUR BUSINESS

- Clean ample water for all



Goals and Strategy

CHALLENGE: Soil from 300,000 small-scale farms washing into the Tana River, resulting in dirty water, disruption of water supply, loss of farm productivity, loss of income, expansion into wildlife habitat, etc.

OPPORTUNITY: TNC worked with partners to create a Water Fund, a globally proven model that brings people together to harness the power of nature conservation to solve water challenges.

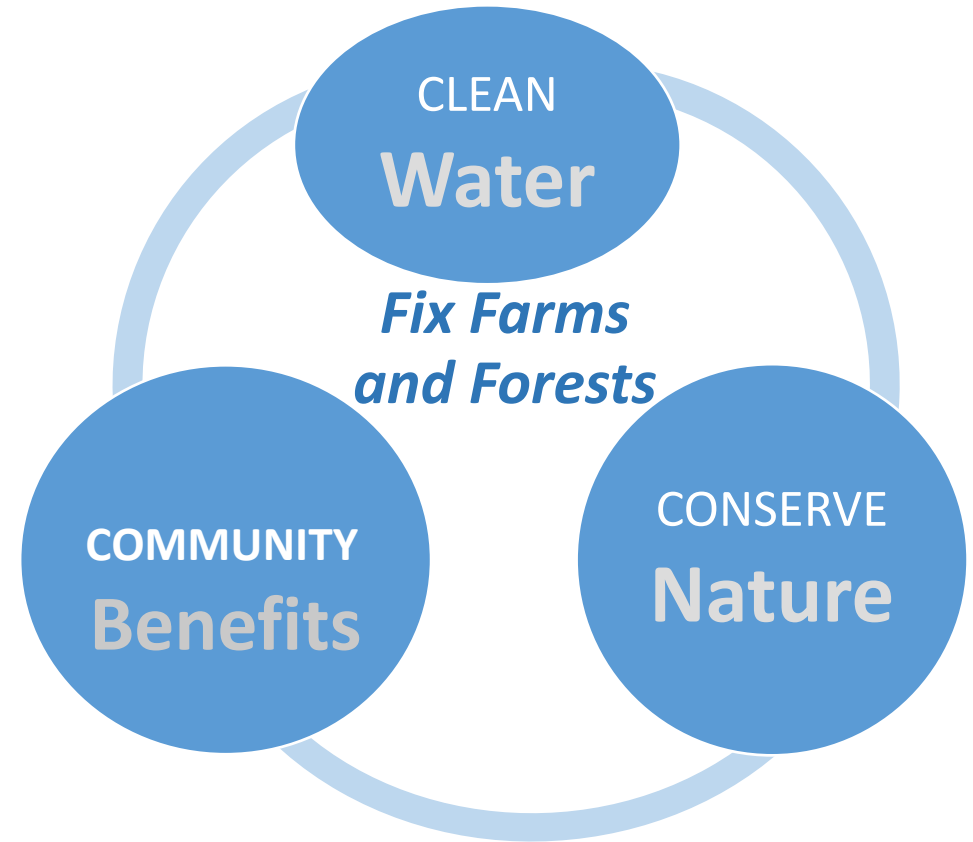
GOALS (benefits) of the Upper Tana-Nairobi Water Fund are **3Cs**

- **Clean Water:** *Improve quality and increase quantity of water.*
- **Community Benefits:** *Increase income and other livelihood benefits for farming families.*
- **Conserve Nature:** *Reforest and improve the health of freshwater ecosystems.*

STRATEGY to achieve these goals is to **fix farms and forests**.

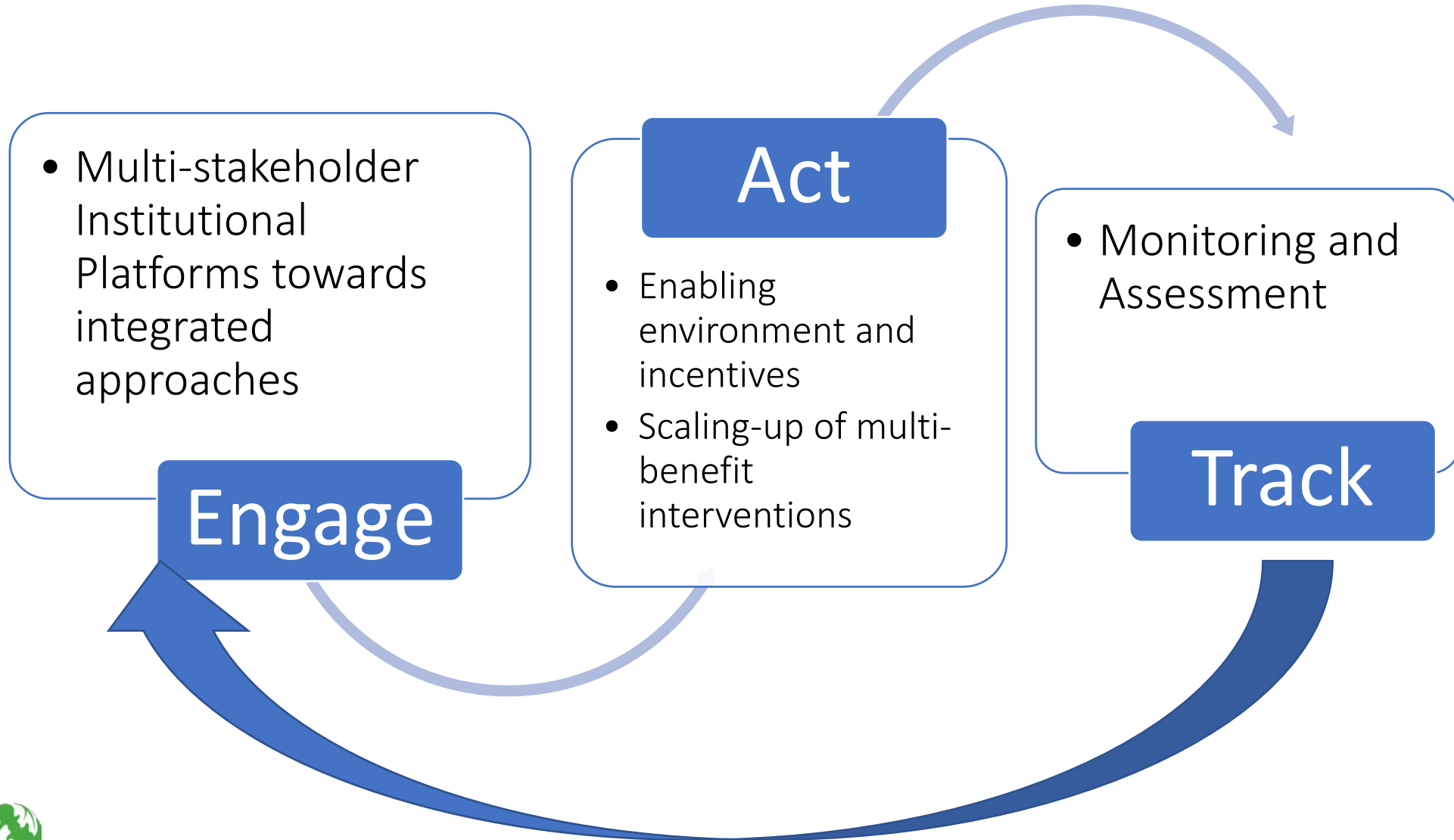
We aim to plant 2 million trees and to work with 50,000 farmers on steep slopes by:

- Implementing *on-farm practices* that save soil and save water.
- Mobilizing a *force for conservation*, from youth to corporate leaders.
- Ensuring *durable progress* through independent governance and a Water Fund endowment.

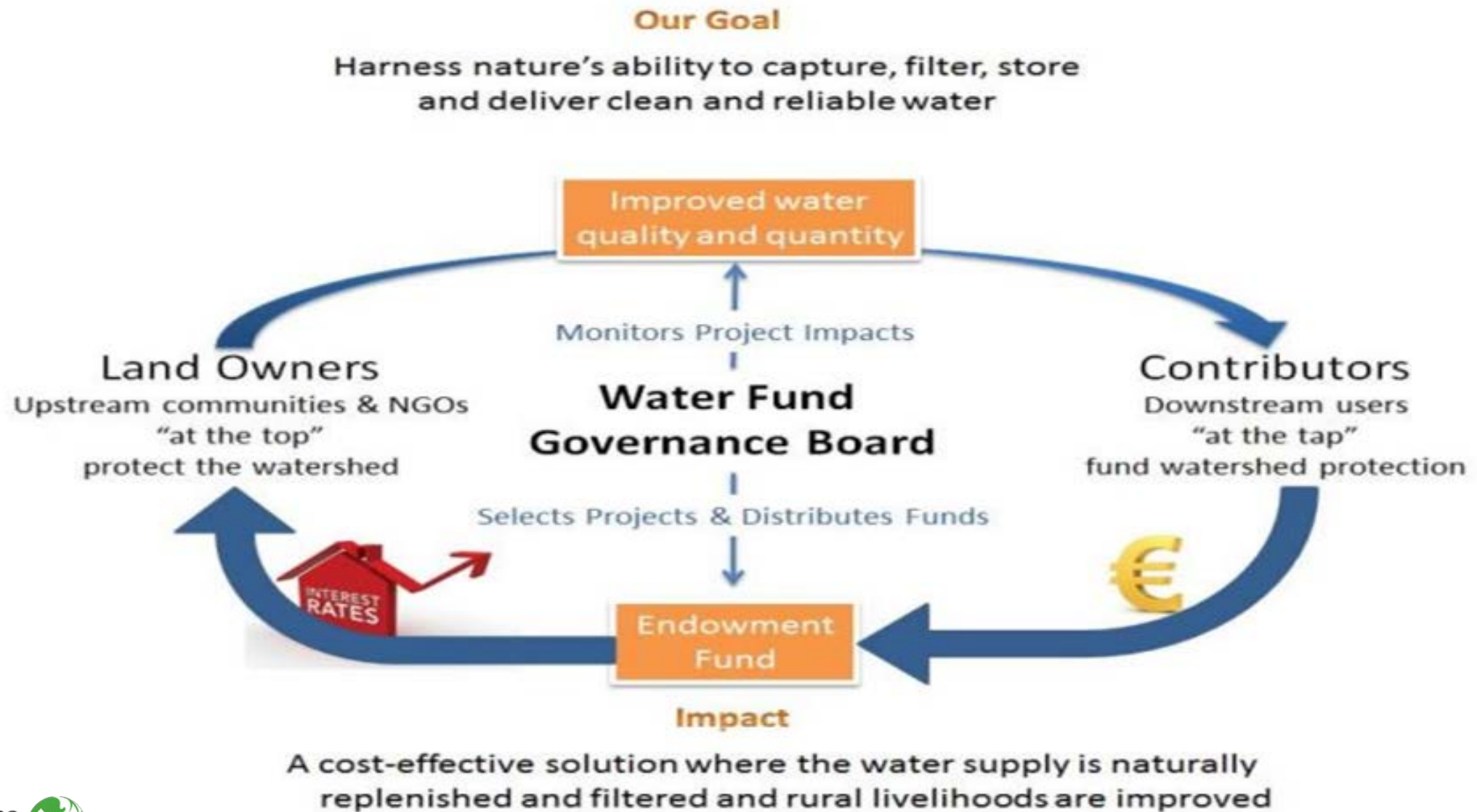




Theory of Change



The Water Fund Model



Benefits to People by 2025

- **30%** Drop in Water Supply Interruptions Caused by Sediment Spikes
- **18%** Less Sediment in Masinga Reservoir
- **15%** More Water in Dry Season River Flows
- **30%** Increase in income across 300,000 farms via Irrigation and Soil Productivity
- **1.6 million** tons of carbon saved



Enhancing Biodiversity

2.8 million Tree seedlings planted

- High Value trees, Hass Avocadoes, Grafted Mangoes, Oranges, Macadamia

100,000 Bamboo seedlings established

- Riparian and degraded lands

200,000 Fodder shrubs seedlings introduced

- Tree crop diversity and fodder security

10

40,000 Ha of public forest under improved conservation

- Enrichment planting
- Integration of communities in forest conservation (CFAs)



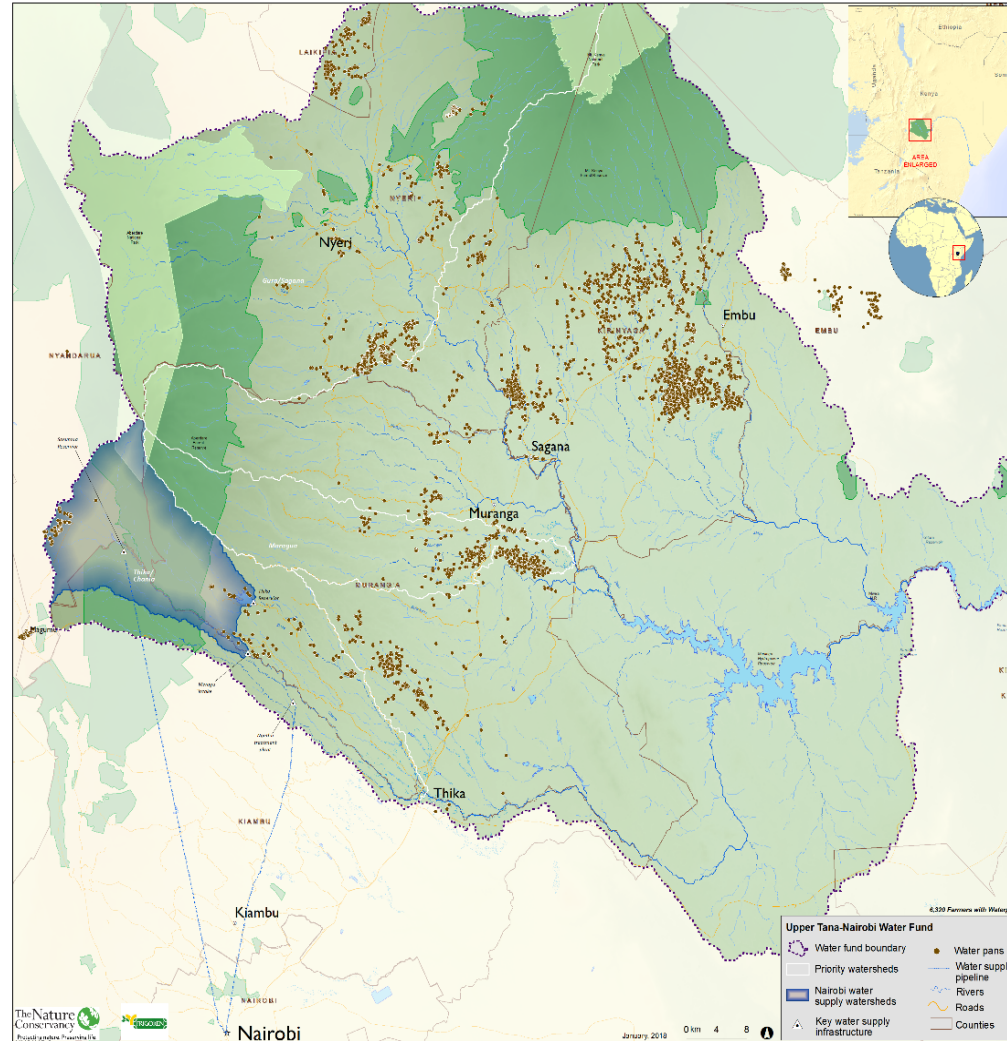
Clean Rivers, Good for Business

- Avoiding cultivation
- Planting cover crops
- Enrichment planting
- Fencing off – Yellow line
- Controlled livestock water points



Every Drop counts.....

- 78,400 Ha of farmlands under SLM (In-situ)
- 11,000 Water Pans in use
- 16 Km of rural road runoff harvested
- 3,000 Drip irrigation kits



Demand-driven Extension for Conservation

- 5 full time staff from County Governments and WRA
- Over 45 Technical officers – on call from County Governments
- 16 graduate interns – capacity building for conservation
- 17 youth technology promoters – Youth out of schools and colleges





Technology for Monitoring – Data to Information

- 26 fully Automated RGS
- 6 telemetry RGS sending data real time (every 2 hrs.) Display screen at NCWSC Ndakaini, JKUAT
- Cloud based DHIS2 data gathering tool – all partners
- Online Dashboard – county level land degradation surveillance
- National information centre - outdoor public screen at NMK
- A Mobile phone platform with 25,000 farmers



Gainfully engaging youth

Leveraging capacity and skills

- 5 staff leveraged by devolved government
- 12 youth engaged for farmer support
- 5 youth under internship (total to date 16)
- 17 volunteer local youth learning from the program
- Annual marathon events, 65 schools in program





IMPACTS | Farmers

More than 25,000 farmers are applying **soil conservation and water-saving methods**



Up to **US\$3 million per year in increased agricultural yields** for smallholders and agricultural producers



8,500 coffee farmers are certified for **Rainforest Alliance**



More than 28,000 farmers are enrolled in an **SMS mobile data monitoring platform.**



IMPACTS | Land & Water

27 million more liters of water flowing into Nairobi each day

Over **50% reduction in sediment** concentration in rivers

Over **500,000 trees** are planted annually in the watershed

196,000 acres of land are under **sustainable management**



Over **US\$600,000 increased annual revenue for KenGen** as a result of increased power generation and avoided shutdowns and spillages

Approximately **US\$250,000 in cost savings a year for Nairobi City Water & Sewerage Company** stemming from avoided filtration, lowered energy consumption, reduced sludge disposal costs and fewer shutdown days



Sustainability and Scaling up

- Multisector platform – PPP
- Financing mechanism –Endowment fund.
- Partnership with private sector – Leadership, Funds, market linkages, technology.
- Partnerships with County Governments and lead agencies –leveraging human, institutional and financial capacities.
- Strategy of working from the “parts to the whole” – strategy of working at various levels, from the farm to micro-catchments to sub catchments to sub watershed and ultimately to the whole of upper Tana watershed through one platform –NWF Trust.
- High potential for replication – Mombasa at Feasibility stage and Eldoret at Design stage.
- Generating the ingredients to promote policy dialogue at national and county levels.



ASANTE SANA

... Its cheaper to address
the problem at the source
than further downstream

Thika Chania sub Watershed

- Group 1

Water Fund Monitoring and Knowledge Management

- Group 2

Youth and Gender Targeting
(Entrepreneurship)



Maragua sub Watershed

- Group 3

Engagement with Local Governments in Conservation. Meet with Murang'a County Executive Committee Member (CECM), and Director of upper Tana Nairobi Water Fund



Sasumua sub watershed

- Group 4

NCWSC partnership and Community engagement through WRUA in Riparian conservation

- Group 5

High Value Crops and Fruit farming for income through Rainwater harvesting

