

THEME 3:

Plugging into climate action and associated opportunities



TOPIC:

SHARED VALUE APPROACH IN RESTORATION AND CLIMATE ACTION

Presenter: Arnolda Shiundu, KBL



SHARED VALUE APPROACH IN RESTORATION AND CLIMATE ACTION

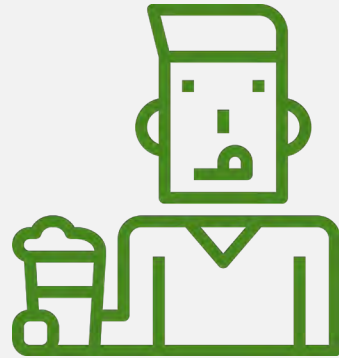
JULY 2021



GROWING
VALUE
TOGETHER

OUR 2030 TARGETS

Aligned to our 2030 sustainability strategy, we aim to deliver a positive impact on society everywhere we live, work, source and sell guided by our key pillars:



Promoting Positive Drinking

we will promote moderation and drive behavior change programmes that will help prevent alcohol related accidents and empower consumers to drink in moderation and responsibly.



Championing Inclusion and Diversity

we will create an inclusive and diverse culture that ensures all our people thrive.



OUR 2030 TARGETS



Pioneering Grain to Glass Sustainability

Grain to glass describes the journey of our products from their sourcing, production, packaging till their distribution to consumers. Our goal is to:

- **Replenish** more water than we use.
- Work with suppliers to **cut our indirect carbon** by a further 50% and support them to accelerate their journey towards zero carbon.
- **Restore the resources** we rely on



SUSTAINABILITY AGENDA: GROWING VALUE TOGETHER



Anchored in our sustainability agenda of **Growing Value**.



We aspire to **build thriving communities** by **creating shared value**



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LAND RESTORATION AT KBL

Minimizing industrial pollution and promoting the implementation of sustainable management of forests, halt deforestation, restore degraded forests and substantially increase afforestation and reforestation.

Water is one of our most important resource and a major ingredient in manufacturing.



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OUR EFFORTS



Conservation of major water towers in Kenya.



Tree planting activities

OUR PROJECTS IN DETAIL



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CONSERVATION OF THE MT KENYA AND ABERDARES WATER TOWERS



CONSERVATION OF THE MT KENYA AND ABERDARES WATER TOWERS

Challenge

Despite their critical importance, the water tower ecosystems have been seriously degraded and continue to be impacted by a number of activities, including irregular and ill-planned settlements, overgrazing, uncontrolled and illegal forest resource extraction, and the conversion of forest land to agriculture.

Objective

To secure the water supply in the country, conservation of water towers is paramount.

Progress

1. Between 2017 and 2018, we planted 100,000 trees as follows:
 - 67,000 trees in Hombe forest block;
 - 23,000 trees at Kabaruru Forest block;
 - 2,000 trees at Naromoru Forest
 - 8,000 trees at Gathiuru Forest.
2. 250 ha of Mt. Kenya Forest cover restored
3. KES 8M towards restoration of Aberdares and Mt. Kenya Forests in partnership with Nature Kenya and Kenya Forest Service.
4. Community Forest Associations (CFAs) .



TREE PLANTING WITH FARMERS IN PURKO, MAU NAROK



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TREE PLANTING WITH FARMERS IN PURKO, MAU NAROK

Challenge

The Mau forests have been depleted and sub-divided into human settlement areas causing drastic changes on the rainfall pattern and interfering with the growing seasons of barley and other crops in this region.

Objective

- Climate change mitigation
- Plant 1,000 acres of forest in the Purko community farm in the next 3-5 Years.

Progress

- This project launched in December 2020.
- 1000 acres of idle land within the Purko farm, and planting 1000 trees.
- Over 5,000 more trees will be planted during the long rains this year.



PROTECTING URBAN GREEN SPACES - KARURA FOREST

Challenge

Green spaces are a crucial breathing space in urban areas where urban life may sometimes feel like a rat race. Although these spaces provide solace, some of them like the Karura Forest in Nairobi, had been neglected and had become insecure to the residents around as well as its visitors. Karura forest is one of the largest urban gazetted forests in the world, at 1,041 hectares and contains nearly all the 605 species of wildlife found in Nairobi.

Objective

Promote land restoration and protect green spaces in Nairobi.

Progress

1. Fencing of the forest
2. Strategy to “turn poachers into game wardens”:
3. Proceeds from the virtual race last year was spent to reward the FKF(Friends of Karura Forest) and KFS (Kenya Forest Service).



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PROTECTING URBAN GREEN SPACES - KARURA FOREST



Forests play an important role in the lives of Kenyans



KENYA
Forest Service

50 YEARS ON
2009-2019
Friends of Karura

peabl
FOUNDATION
Enriching Lives!

Friends of Karura Anniversary
Celebrating Another Year of Service

Virtual Race
9th - 18th October
10km & 5km categories
Entry Ksh 500
inc. medal and tee

In Partnership With

Unilever naivas Coca-Cola FOOD BANKING KENYA
Eradicating Hunger



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RESTORATION IN THE LAKE BASIN REGION - KOGUTA FOREST



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RESTORATION IN THE LAKE BASIN REGION - KOGUTA FOREST

Challenge

The 446 hectares Koguta forest sits on the edge of Lake Victoria and is unfortunately devastated from encroachment and wanton deforestation due to illegal charcoal burning and livestock grazing.

Objective

Restore the degraded land of the forest.

Progress

1. We planted 10,000 trees in the first phase and have committed to plant 110,000 more trees in the forest.



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THANK YOU



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TOPIC:

Effectiveness of Community Forest Associations and Water Resource Users' Associations in discharging their statutory functions:
Opportunities existing for land restoration

Presenter: Patricia Mumbi Wambu, Wangari Maathai
Foundation

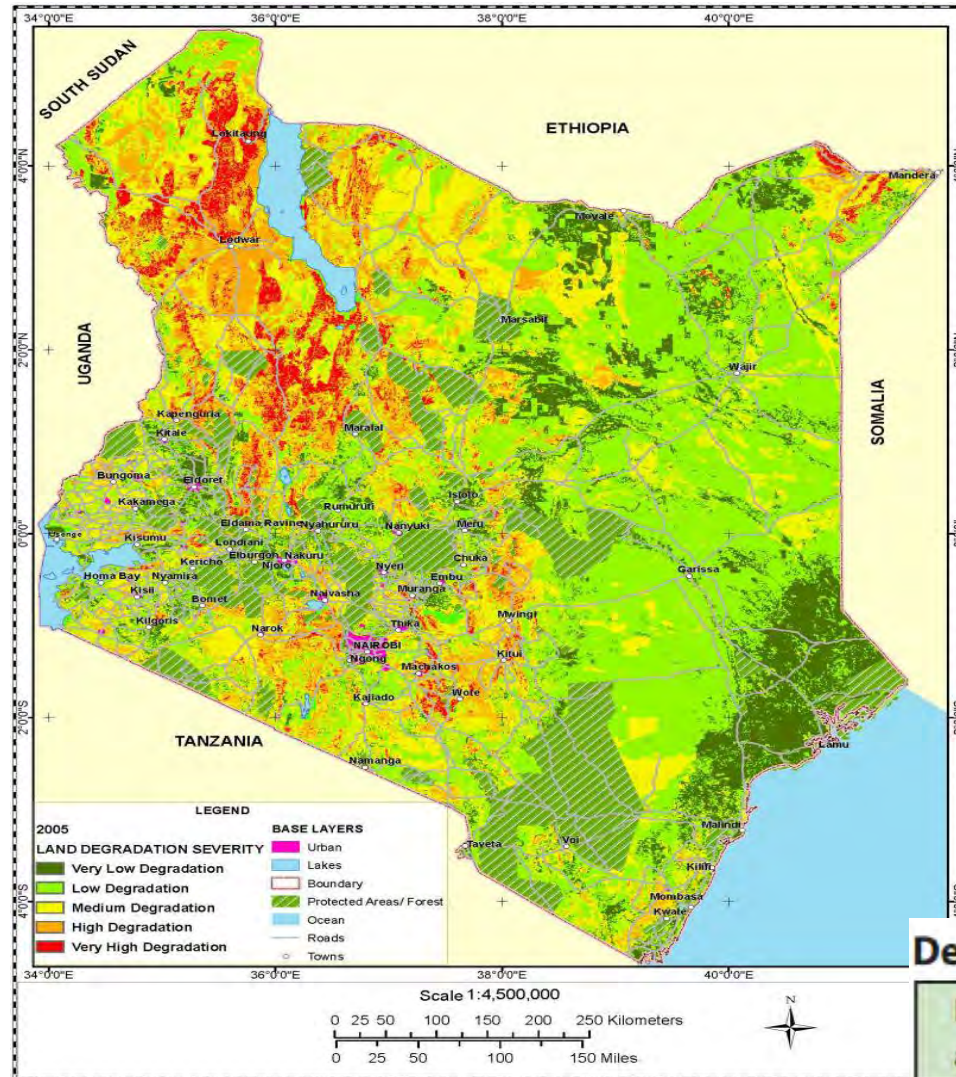


TOPIC: "EFFECTIVENESS OF COMMUNITY FOREST ASSOCIATION AND WATER RESOURCE USERS' ASSOCIATIONS IN DISCHARGING THEIR STATUTORY FUNCTIONS"

OPPORTUNITIES EXISTING FOR LAND RESTORATION.



INTRODUCTION



Land restoration can be achieved, using trees and other related land management technologies in Kenya, through the activities of Community Forest Associations (CFAs) and Water Resources Users associations (WRUAs). This can be through the institutions (CFAs and WRUAs) effective discharging of their statutory functions.

Degraded areas 1981-2003 Source: Bai and others 2008

Degrading area (km ²)	Per cent of territory	Per cent of total population	Number of affected people
104 994	18.02	35.59	11 803 311

CFA AND WRUA KEY STATUTORY FUNCTIONS

CFA Key activities:

- Actively prepare and implement participatory forest management plan in collaboration with the KFS office.
- Establishment of tree nurseries, planting of trees, conflict resolution's, control of forest fires and sensitizing communities on conservation.
- Protection of the forested hills, monitoring the forest condition, enjoy user rights and provide any useful information to KFS for improvement of the catchment.

WRUA key activities

- Preparation of sub catchment management plans (SCAMP).
- Management of water resources within the catchment properly.
- Increase the availability of water resources and enhance water and food security.

Outline of CFA and WRUA opportunities in land restoration.

- 1.Re-afforestation programs
- 2.High and Lower level institutional greening opportunities
- 3.Semi-arid- Stakeholders involvement in Mainstreaming Sustainable Land Management in Agro - Pastoral Production Systems of Kenya through CFA/WRUA activities.
- 4.Adoption of *Strategic frameworks, national plans and measurable commitments to restoration* (Kenya Constitution 2010, The Land Act 2012 on forest management, Kenya Forest management Act 2016, Forest Bill 2014, Kenya Vision 2030, Land Policy 2009 Sections, Environmental Management and Coordination Act 1999 (EMCA), Forest Policy, 2014 (Revised 20-2-2014, National Climate Change Framework Policy Draft [Version of 22 September 2014])
- 5.Development of restoration tools and empowering ~Tools developed
- 6.Supporting small scale irrigation

CFA and WRUA Opportunities in Restoration:~

Interventions

1. Re~afforestation programmes



Bamboo in Lake Victoria riverine areas: Kericho, Kisii, Nandi South, Nyamira, Nyando, Siaya, and Vihiga areas.

Landscapes



Land Cover Change Drivers



2.High and Lower level institutional greening opportunities

Ministry of environment water and Natural resources and other stakeholders support to:

- Greening institutions of higher learning and low level schools - planting trees,
- Adoption of tree by school children to take care
- Revival of the 4-k clubs in Kenyan school (Kuungana, Kufanya, Kusaidia Kenya)
- Support education for sustainable development in schools



3.Semi-arid- Stakeholders involvement in Mainstreaming Sustainable Land Management in Agro - Pastoral Production Systems of Kenya through WRUA activities.



Sand dams and sand gabions to ensure water security .
Retention ditch and semi circular bund constructed - hold runoff and reduce the flow to the gully.
ditches will increase soil moisture - suitable for re-vegetation and planting of trees. The ditches also act as soil erosion control measures.



4. Adoption of *Strategic frameworks, national plans and measurable commitments to restoration*

Kenya Constitution 2010: ~

- chapter 5 land and environment and fourth schedule that make specific commitment to environment.
- Article 69 (chapter 5) Part 2 ((a) sustainable and conservation
- Environment and land court
- Two tier governance system: i) National Government and ii) County Government.
-

The Land Act 2012 on forest management

- identify ecologically sensitive areas that are within public lands and demarcate or take any other justified action on those areas to prevent environmental degradation
- Control land conversion



Kenya Forest management, Act 2016

- Participatory forest management plan
- Lengthy excision process with public involvement
- under review to be in line with the Kenya Constitution 2010, (Forest Bill 2014 is under discussion)

Forest Bill 2014

- Community Forestry programme
- National reforestation programme to provide both grants and technical assistance

Kenya Vision 2030

- recognizes unplanned land use as a major hindrance to wildlife and forests conservation.
- Prioritizes land use planning – first spatial plan



Land Policy 2009 Sections

- 3.4 provides for land use planning as follows;
- Government shall encourage preparation of participatory environmental action plans by communities and individuals living near environmentally sensitive areas to preserve cultural and socio-economic aspects,

Environmental Management and Coordination Act 1999 (EMCA)

- Environmental Audit (EA)
- Environmental Impact Assessments (EIA)
- Strategic Environment Assessment (SEA)
- Polluter pay principle
- Revised Reducing Emissions from Deforestation and Forest Degradation (REDD) – Readiness Preparation Proposal Kenya:~
Component 2:



Forest Policy, 2014 (Revised 20~2~2014):~

- specific environmental commitments is captured under Section 3.2, which states the need to;~
 - (a) Increase and maintain tree and forest cover of at least ten percent of the land area of Kenya.
 - (b) Establish an enabling legislative and institutional framework for development of the forest sector.
 - (c) Support forestry research, education, training, information generation and dissemination, and technology transfer for sustainable development.

National Climate Change Framework Policy Draft [Version Of 22 September 2014]:~

- Section 2.1.2 *Environment, Water and Forestry*:
- Section 2.4.2, the National Climate Change Action Plan (NCCAP) analysis suggests that Green House Gas (GHG) emissions in Kenya will increase up until 2030 in all sectors except forestry where emissions are likely to decline after 2020



5. Development of restoration tools~Tools developed



Model of restoring county land scapes



COMMITTEE	MEMBERSHIP	FUNCTIONS
National River Restoration	MINISTRY OF ENVIRONMENT WRA YOUTH WATER	Policy Partnership Resource Mobilization
County River Restoration	CEC ~ WATER, ENVIRONMENT WARMA, KFS, NEMA CIVIL SOCIETY/NGOs WATER COMPANIES	Planning, Political Commitment Coordination
Community Groups	WRUAS CFAS YOUTH, WOMEN,	Implementation

Farmer Managed Natural Regeneration (FMNR)

Tools developed.....



Agroforestry practices

In a conventional setup during land preparation farmers treat the sprouting stems as weeds, slashing and burning them before sowing their food crop.



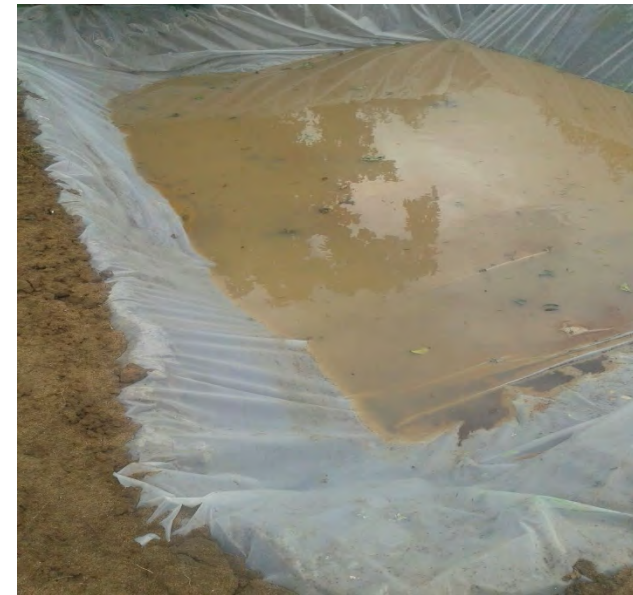
If these stems are allowed to grow, the live stumps may produce between 5 to 10 stems each



Tools developed



Water harvesting structures and livelihood



Tools developed



Integrated
community support
through green
rangers ~ protection

Community-based natural resource management
Use of Community groups – GBM women model
raising seedlings



Water Resources users association (WRUAs)



Community Forest Associations (CFA)

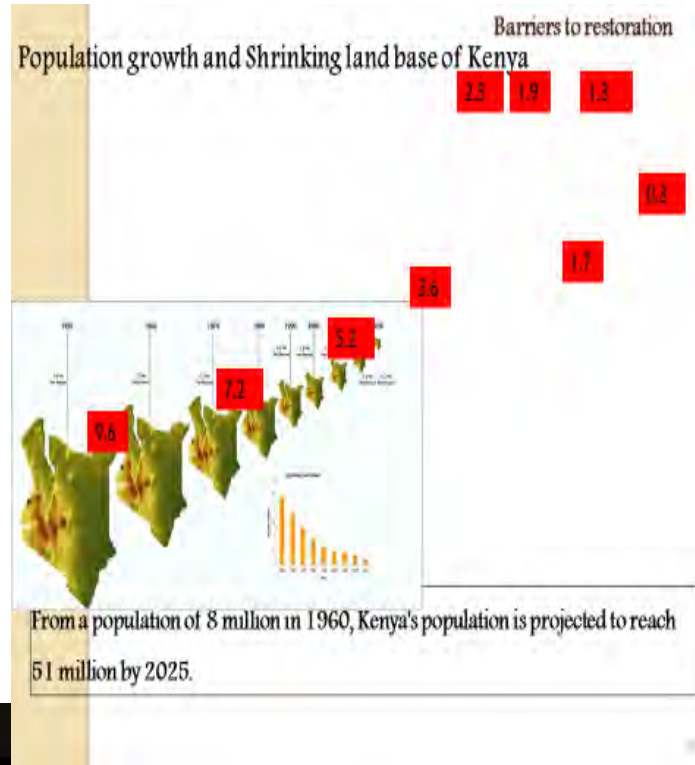
Rangeland reseeding



6. Supporting small scale irrigation and improved natural resource management



Conclusions: Barriers to Land restoration



Domestic Energy :Fuel wood high demand and charcoal burning



Drivers of deforestation such as charcoal production and timber have contributed to serious land degradation in the country.



Thank You



TOPIC:

CLIMATE SMART ENTERPRISES

Presenter: Joseph Karuga, Nyuki Hubs



Innovations That Farmers Can Work With To Enable Them Maintain/Sustain The Environment

- JOSEPH KARUGA
- Joseph.karuga@nyukihubs.co.ke
- G.M



If we die, we're taking you with us.



“If the bee disappears from the surface of the earth, man would have no more than four years to live.”

~Albert Einstein

Bees are a sign of well functioning ecosystem



BEEKEEPING AS A CLIMATE SMART ENTERPRISE

- **Biodiversity and environmental protection**

They provide pollination as key ecosystem services making food production possible, hence protecting and maintaining ecosystems as well as animal and plant species, and contribute to genetic and biotic diversity.

Bees also act as indicators of the state of the environment. Their presence, absence or quantity tells us when something is happening with the environment and that appropriate action is needed. By observing the development and health of bees, it is possible to ascertain changes in the environment and implement the necessary precautionary measures in time.

- **Food security**

Provides high-quality food (honey, royal jelly and pollen) and other products used in healthcare and other sectors (beeswax, propolis, honey bee venom).

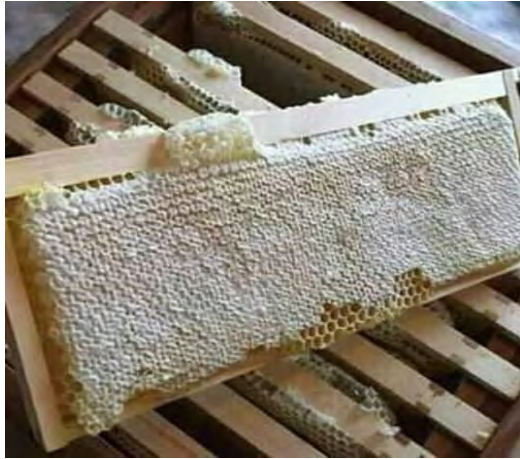
Bees and other pollinators provides pollination of nearly three quarters of the plants that produce 90% of the world's food. A third of the world's food production depends on bees, i.e. every third spoonful of food depends on pollination.

- **Sustainable farming and income**

Effective pollination increases the amount of agricultural produce, improves their quality and enhances plants' resistance to pests. Cultivated plants that depend on pollination are an important source of income to farmers. They provide jobs and income to millions of people.

annual global production of food that depends directly on pollination was worth between \$235 and \$577 billion.

SUSTAINABLE MODERN BEEKEEPING MODELS



PRODUCT	VALUE (KES)	USES
Honey	400-800/=	Food, preservative
Bee Wax	500g/Kg	Cosmetic industry
Propolis	800/Kg	Anti-bacterial effect
Pollen	1000/kg	Protein supplement
Royal Jelly	35,000/kg	Anti-aging and production improvement
Bee-venom	5000/gram	Effective medicinal

Jennifer Merli

Vice President, Corporate Sustainability,
Mastercard



People, Prosperity and Planet

- Mastercard is building a **more inclusive and sustainable digital economy** that works for everyone, everywhere
- Our technology and expertise are powering today's innovation. We are taking a **digitally-enabled** approach to supporting the financial needs of **small businesses and individuals**
- By applying the full strength of our resources and trusted network, we can help **people reach their full potential, ensure economic growth is inclusive, and that the planet thrives**





The Priceless Planet Coalition unites the efforts of merchants, banks, cities and consumers to take action and fight climate change.

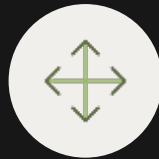
Together we pledge to restore **100 million trees over five years** together with global environmental organizations Conservation International & World Resources Institute

By mobilizing our network and partners to take climate change action, it's our ambition to:



Unite

With our reach and connectivity, we can unite currently fragmented initiatives from city authorities, financial institutions, and merchants under a single movement to bring about greater change



Impact

Restoring forests is acknowledged as a foremost action to climate change and has the ability to directly connect with consumers to drive action



60+ Partners
with 100 in the pipeline



21 Markets
representing all regions



35 Campaigns 25
by Partners & 10 by Mastercard



Our Coalition spans a wide range of industries united in a common purpose

Coalition Partners



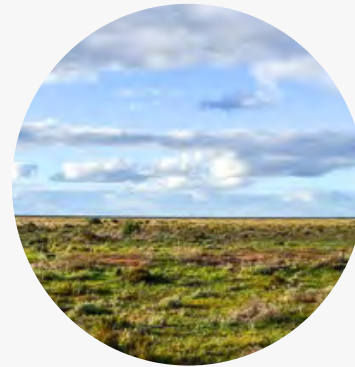
In partnership with



Restoration projects are chosen based on their potential for high conservation value and climate, community and biodiversity benefits

- The Priceless Planet Coalition is not simply planting trees, but **re-growing forests in places with the greatest need.**
- Projects and geographies with the greatest potential for positive impacts on **climate, community and biodiversity** goals will be prioritized.
- We will employ rigorous **science-based restoration standards** for project selection, implementation and monitoring.
- Other evaluation criteria include **capacity, cost per tree and location.**

Current Projects



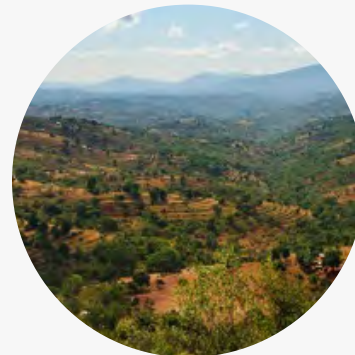
Southern Tablelands/Riverina
and Western Sydney, Australia

500,000 trees



Amazon and Atlantic Forests, Brazil

2 million trees



Makuli Nzau landscape, Kenya

1.2 million trees

