



WORLD  
RESOURCES  
INSTITUTE

# Cities4Forests

**Addressing the Barriers to NBS Adoption for  
Climate, Water, and Biodiversity in  
Sub-Saharan Africa:**

*A workshop to mainstream green-grey infrastructure solutions*

**October 5, 2022**



# Partners and Funders

Cities**4**Forests



WORLD  
RESOURCES  
INSTITUTE

 **GREEN GROWTH**  
Knowledge Partnership



WORLD BANK GROUP



**GFDRR**

Global Facility for Disaster Reduction and Recovery



AFRICAN DEVELOPMENT BANK GROUP



Sweden  
**Sverige**

**CATERPILLAR**  
FOUNDATION

**CATERPILLAR**

**giz** Deutsche Gesellschaft  
für Internationale  
Zusammenarbeit (GIZ) GmbH



Federal Ministry  
for Economic Cooperation  
and Development



Cities**4**Forests

[www.cities4forests.com](http://www.cities4forests.com)

# Opening Remarks

**Wanjira Mathai**

Managing Director  
Africa and Global Partnerships  
World Resources Institute



**Intro**

**Session 1**

**Session 2**

**Break**

**Session 3**

**Conclusion**

# Opening Remarks



**Dr. Benjamin Kinyili**

Principal Conservator of  
Forest - Office of the  
Directorate of Forest  
Conservation and  
Management (DFCM)



# Opening Remarks



**Dr. Vanessa Ushie**

Acting Director  
Africa Natural Resource Management &  
Investment Centre  
African Development Bank

**Intro**

Session 1

Session 2

Break

Session 3

Conclusion

# Welcome and Workshop Goals

- Learn from a **diverse set of experiences** about **barriers and enabling conditions** for NBS projects
- Chart strategies to **prepare, implement, and scale** NBS
- Build on **existing collaborations** and **spark new partnerships**



Photo: Aaron Minnick | World Resources Institute; Kakamega Forest, Kenya

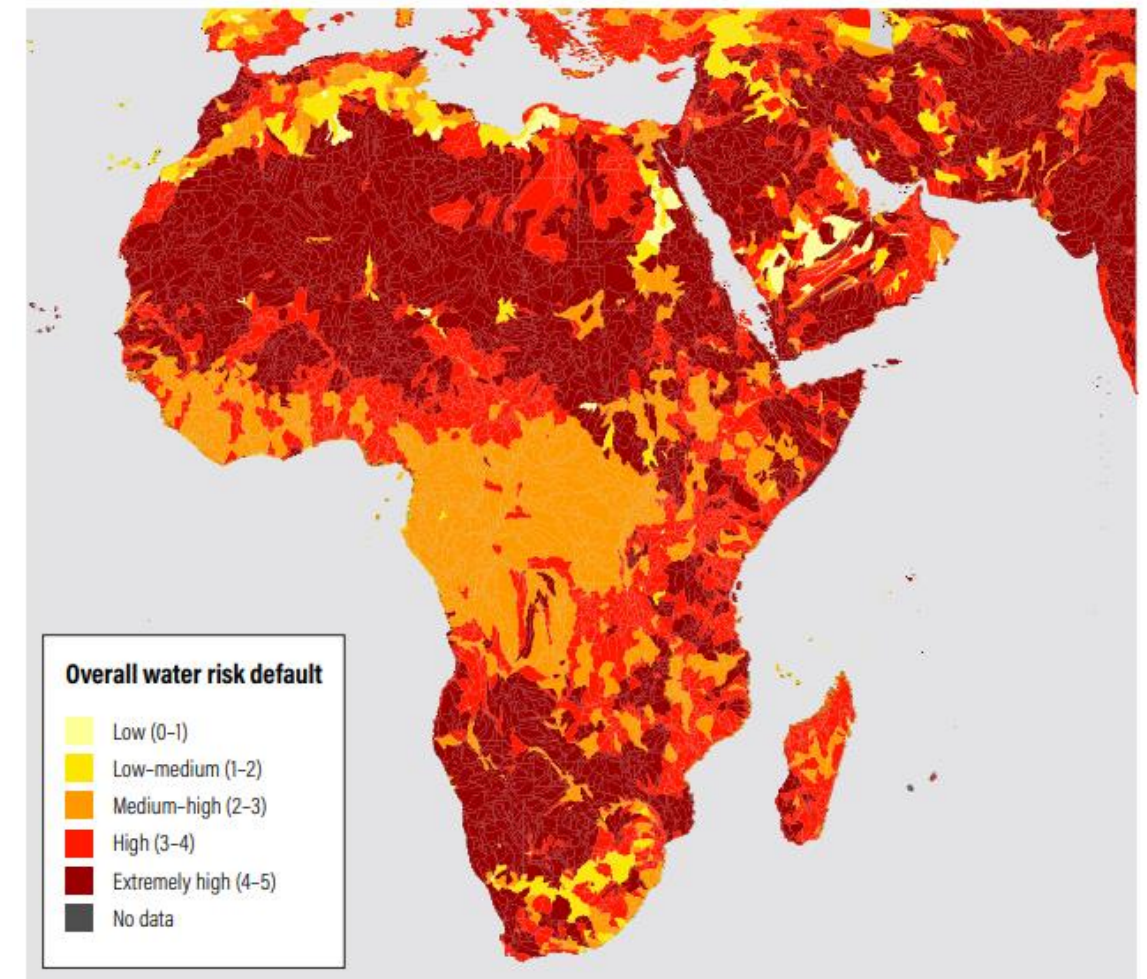


# The Urgency of the Moment



Photo: Flooding at entrance to Addis Abbaa University Source: L.W. Habtemariam, 2017

Figure 1 | Every region of Africa has water basins facing medium to extremely high water risk



Source: Workalehmahu Habtemariam et al. 2021. From Aqueduct, based on Hofste et al. 2019.



# NBS Infrastructure in Sub-Saharan Africa for Climate and Water Resilience: Regional Status and Opportunities to Scale

- Close **key knowledge gaps** about NBS adoption in the region
- Create **actionable strategies** to launch and scale NBS
- Create **strategic partnerships** to efficiently allocate limited resources to NBS



Photo: Aaron Minnick | World Resources Institute; Tree Planting and Degraded Landscape, Ethiopia



# NBS Project Scan

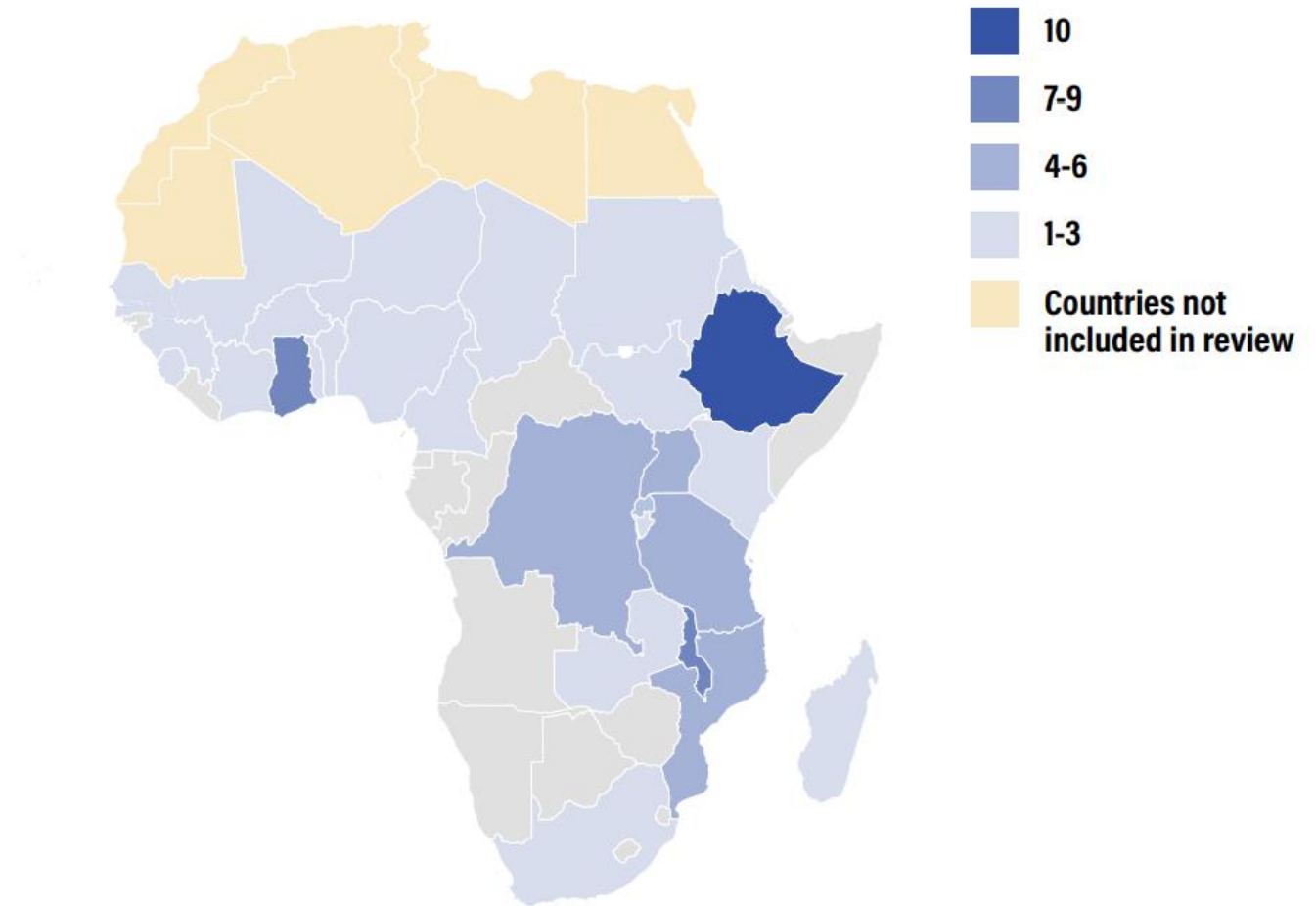
- **Regional scan** of NBS projects
- Identify **status and trends** of NBS implementation
- **300+ NBS** projects identified thus far across 42 countries



# MDB NBS Projects in Sub-Saharan Africa

Figure 1 | Geographic Distribution of NBS Projects

- **85 projects** from 2012 to 2021
- **\$4.5 billion** towards components with NBS and Green-Gray Infrastructure





# Funding and Financing NBS

- **Pathways to Scale NBS investments**
  - Infrastructure lending portfolios
  - Funding earmarked for nature, biodiversity, water and/or climate
- **Scale of opportunity and criteria for access**
- **Risk mitigation tools and mechanisms**
- **Innovative financing mechanisms**



# Challenges and Enabling Conditions



**Technical**



**Financial**



**Legal**



**Institutional**



**Social**

**Intro**

**Session 1**

**Session 2**

**Break**

**Session 3**

**Conclusion**



# Agenda

- **Session 1.** Barriers in NBS project design & implementation
- **Session 2.** Challenges to owning, operating, & maintaining NBS

## Break

- **Session 3.** Scaling & replicating NBS infrastructure investment
- **Closing remarks** & next steps

**Menti Poll:**

[www.menti.com](https://www.menti.com)

Code: 3612 7037

- **Workshop Goals**
- **NBS Challenges**
- **Enabling Conditions**



# Session 1.

**Barriers in NBS project design & implementation:**  
Mainstreaming and adopting NBS infrastructure.

# Barriers in NBS project design and implementation



Photo: Residents taking refuge on rooftops in Mozambique during Cyclone Idai; Source: Flickr/Department for International Development 2019.

- Mainstreaming NBS into AfDB
  - Dr. Al Hamdou Dorsouma
- Case Study: NBS in Transportation
  - Green Roads for Water
- Case Study: NBS for Urban Resilience & Disaster Risk Management
  - World Bank lessons from Beira, Mozambique
- Breakout Sessions
- Summary



# Overview



**Dr. Al-Hamdou Dorsouma**

Acting Director  
Climate Change & Green Growth  
Department  
African Development Bank

Intro

**Session 1**

Session 2

Break

Session 3

Conclusion

# Case Study: **Green Roads for Water**



**Michael Maluki**

Superintendent Roads Engineer,  
Department of Roads, Transport, Energy and  
Public Works

Government of Makueni County, Kenya.



**Theophilus M. Kioko**

Program Officer  
MetaMeta Research  
Roads for Water

**Intro**

**Session 1**

**Session 2**

**Break**

**Session 3**

**Conclusion**





# Green Roads for Water

**Addressing the Barriers to NBS Adoption for Climate, Water, and Biodiversity:**

**A workshop to mainstream green-gray infrastructure solutions.**

5<sup>TH</sup> October 2022

The Social House, Nairobi, Kenya

Theophilus Kioko (**MetaMeta Kenya**)

Michael Maluki (**Makueni County Government**)

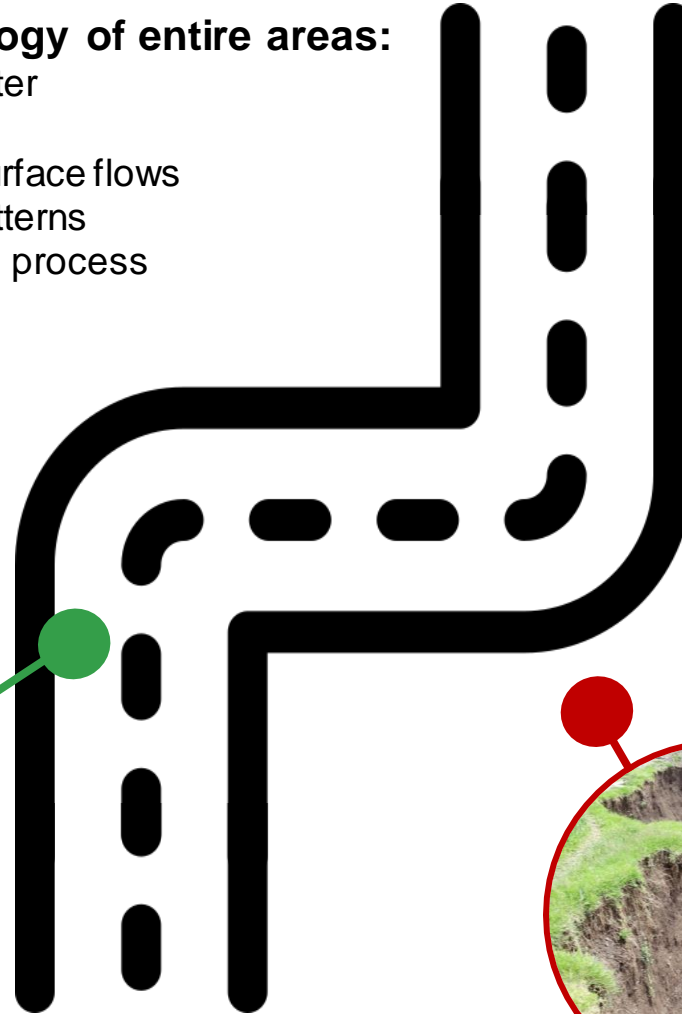


**Roads affect the hydrology of entire areas:**

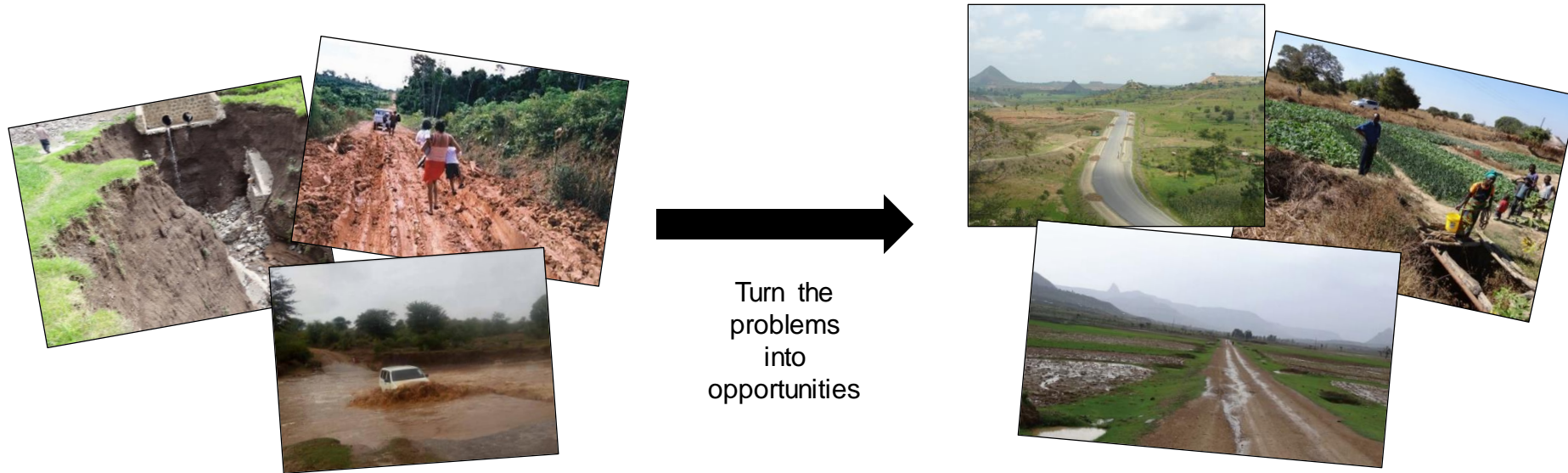
- They block and guide water
- They concentrate runoff
- They interfere with subsurface flows
- They change flooding patterns
- They get damaged in this process

**Water-related road damage**

(on average there are 13-25 problem spots along a 10km stretch of road in Ethiopia)

**Flooding****Water logging****Erosion (gullies and landslides)**





**Green Roads for Water** is a smart way of



**Meeting  
climate  
resilience of  
roads**



**Collecting and  
using the road  
run-off for  
various purposes**

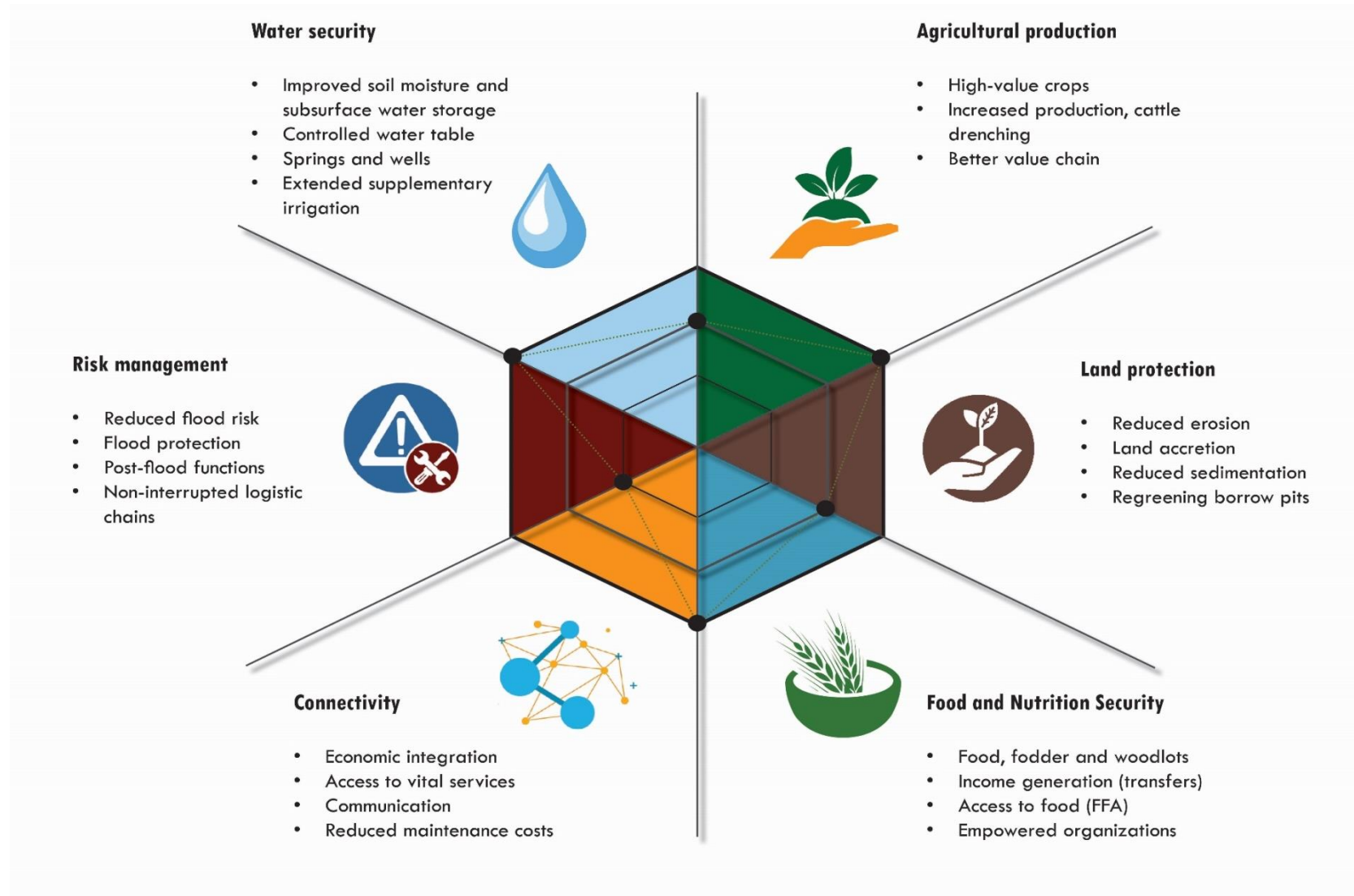


**Reducing  
adverse weather  
impacts on road  
bodies and the  
surrounding of  
the road's  
environment**



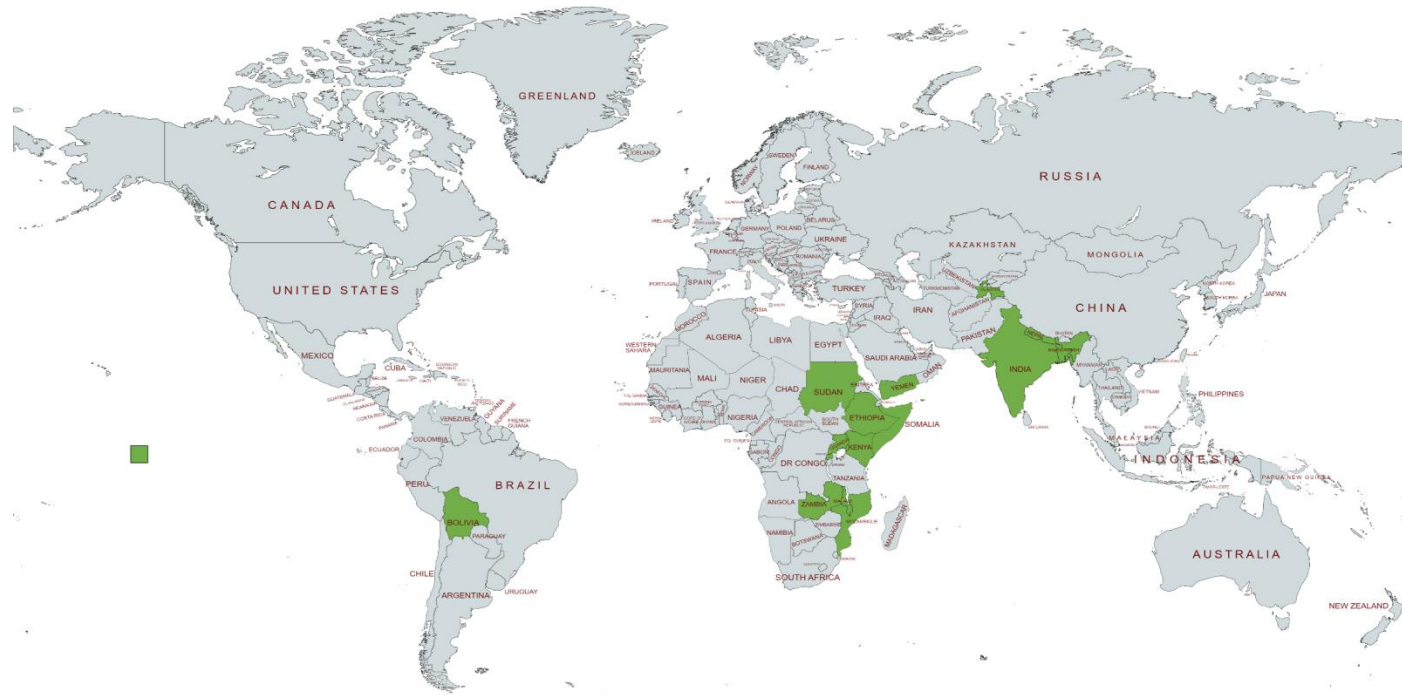
**Protecting  
roads and  
securing  
transport**

## Green Roads co-benefits

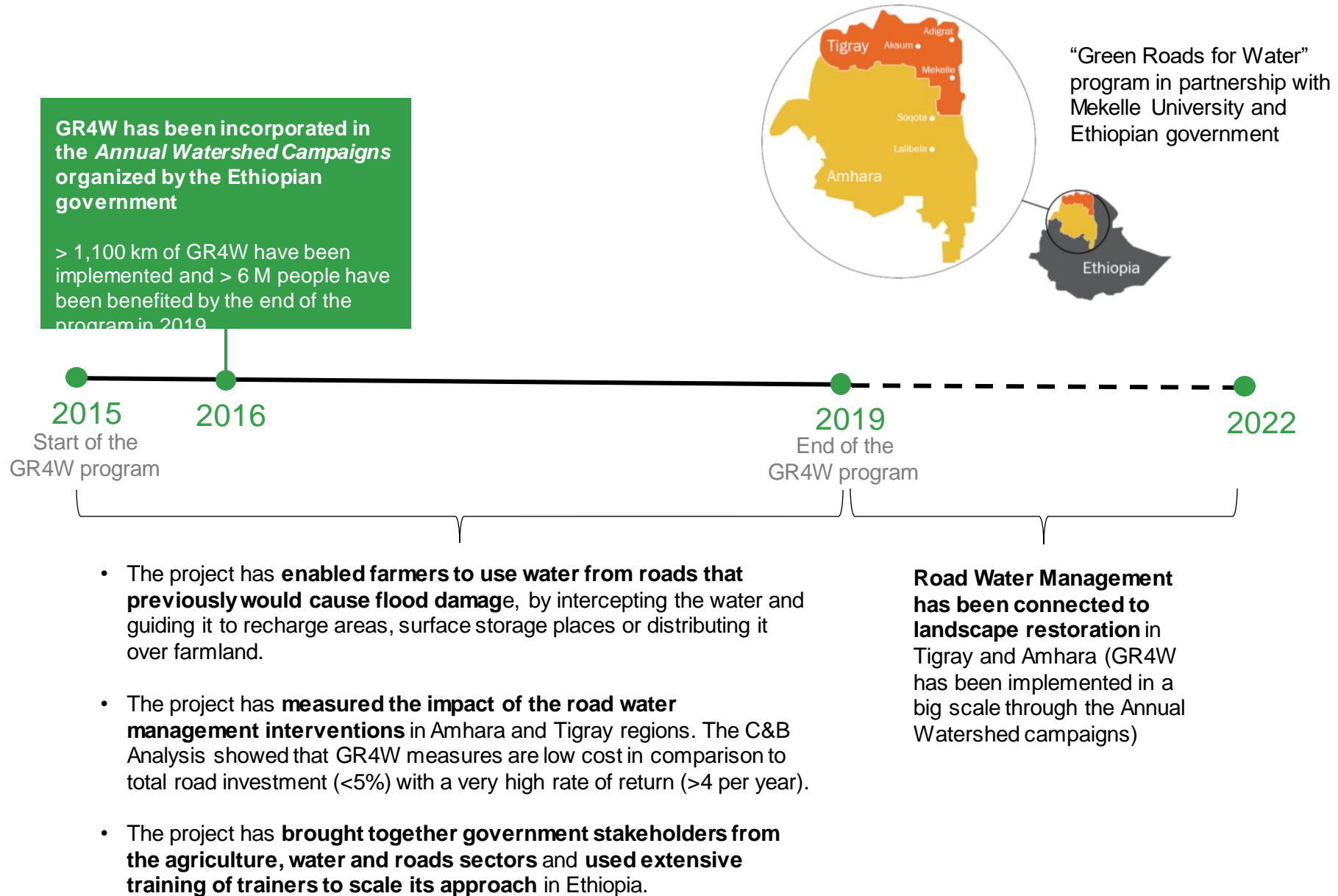


## Green Roads for Water work and geographical coverage

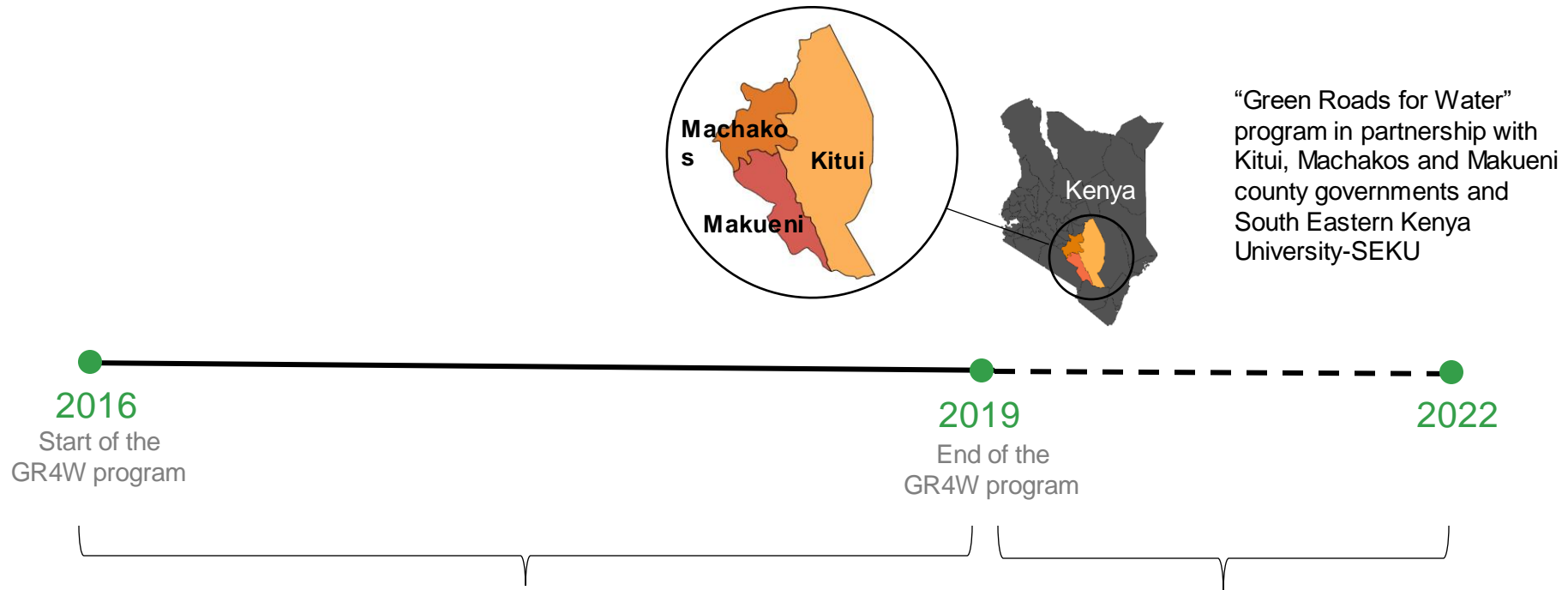
- Initiated by MetaMeta in 2015
- Active in more than 14 countries
- Various types of projects: research, capacity building, implementation, policy formulation
- Supported by: The World Bank, GRP (supported by USAID, SIDA and Rockefeller Foundation), IRF, ADB, NWO, NERC, RAP3, IFCD, IFAD, IKEA Foundation, NUFFIC, Welthungerhilfe, IUCN
- Total funding secured: about USD 3.6 M (2015-2022)











- The project had **introduced and adapted to ASAL conditions a myriad of road water harvesting techniques**
- The projects **trained >300 county staff and >1000 farmers in Kitui, Machakos and Makueni** on road water management (focusing on RWH)
- **The project set a up technical team in Kitui, Machakos and Makueni counties** to coordinate the GR4W activities across water, road and agriculture sectors and incorporate it into county programs
- The project **monitored the impact of the GR4W interventions** (>50.000 people benefit from improved road safety and connectivity, >10.000 people benefit from prolonged water availability for essential dryland agriculture)

Road Water Management has been incorporated in many county programs in **Makueni county**.





Original road condition without GR4W structures.



Green Road with miter drains to nearby farms.



Farming using harvested roadside runoff.



Road Run-off harvesting through cross culvert to a farm pond.



Harvested Road run-off stored in a roadside gravel borrow-pit.



Crop farming using road run-off stored in farm ponds.



Vented drift that evacuates water and sand at crossing points

Conventional drifts



Drift with Nbs factored in design



Non-vented road crossing/Drift which provides crossing and sand storage.



Roadside tree planting for dust control.



Roadside gully rehabilitation using natural methods..



Excavation of Road side mitre drains for road runoff harvesting.





Community capacity building and trainings for sustainability



Community field trainings and demonstrations on setting GR4W structures.



Community empowerment program for excavation of roadside mitre drains.



Community feedback-Monitoring and assessing impacts of road runoff on farming



Roadside farmer using roadside runoff for farming.



Community field monitoring and evaluation of GR4W progress.





### Enabling conditions for the success of the GR4W programs

- **GR4W brings a triple win with one go:** (1) more durable roads with decreased maintenance costs, (2) healthier landscape around roads and (3) increased water availability through better managing the water around roads
- GR4W is not only about promoting/implementing measures and technologies – but is **a combination of management, operation and maintenance of the applied technologies in an inclusive manner**
- GR4W measures are considered as **Nature-based solutions** (supporting communities to build resilience against the negative effects of Climate Change)
- GR4W measures are **low-cost, low-tech** and can be constructed by **locally available materials**

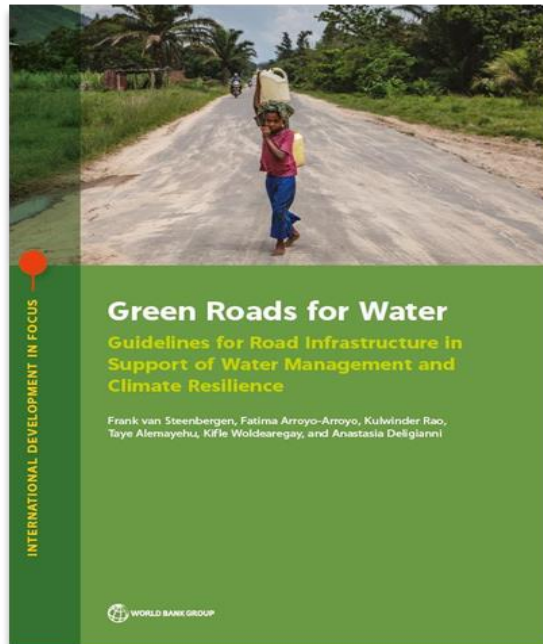


### Barriers for upscale

- **the way the road sector is structured** in several countries (very conservative and focused only on engineering solutions)
- GR4W is a multisectoral approach that requires various sectors (water, agriculture, environment, roads, etc) to work together. However, one big barrier to project success is **all sectors work in silos** - a lot of effort is needed to bring all sectors together and explain how to work together so one does not harm the other
- **big need for capacity building/trainings and further research** on the GR4W approach, techniques and governance

- **Community engagement** is an important

- **GR4W website:** <https://roadsforwater.org/>
- **GR4W pitch video:** <https://roadsforwater.org/training/roads-for-water-the-pitch/>
- **GR4W guidelines (issued by the Word Bank):**  
<https://openknowledge.worldbank.org/handle/10986/35752>



For more information contact: [adeligianni@metameta.nl](mailto:adeligianni@metameta.nl)

# Case Study: Building Resilience Through Green-Gray Infrastructure: Lessons from Beira, Mozambique



**Brenden Jongman**

Senior Disaster Risk Management  
Specialist,  
Global Facility for Disaster Reduction  
and Recovery  
World Bank

Intro

**Session 1**

Session 2

Break

Session 3

Conclusion



# Case Study: Building Resilience Through Green-Gray Infrastructure



Intro

**Session 1**

Session 2

Break

Session 3

Conclusion

# Breakout Sessions

**Question 1:** What have been the biggest challenges you have witnessed or experienced in terms of the assessment, design, and/or implementation of NBS projects in SSA?

**Question 2:** In light of these challenges, if you could wave a magic wand, what would be the one thing that you would change to help increase NBS adoption in SSA?

**Question 3:** In NBS projects that you have seen make progress in SSA, what have been the enabling conditions that have contributed to success?



# Summary of Breakout Sessions



Intro

**Session 1**

Session 2

Break

Session 3

Conclusion



# Session 2.

**Challenges to owning, operating, and maintaining NBS:**  
Showing pathways to support Operations and Maintenance (O&M), Monitoring, Evaluation and Learning (MEL), and quantification methods for measuring co-benefits.

# Challenges to owning, operating, and maintaining NBS



Photo: Aaron Minnick | World Resources Institute; Kakamega Forest, Kenya

- Presentation
  - Caroline Wangeci, Kenya Water Towers Agency
- Panel session
  - Hannah Benn, Pegasys
  - Kevin Mutia, ICLEI
  - Larissa Duma, World Bank
  - Melissa de Kock, UNEP
- Summary

# Presentation: **Kenya Water Tower Agency (KwTA)**

**Caroline Wangeci**

Acting Assistant Director  
Ecosystem Research and Monitoring  
Kenya Water Towers Agency (KwTA)



**Intro**

**Session 1**

**Session 2**

**Break**

**Session 3**

**Conclusion**

**KENYA WATER TOWERS AGENCY**

# Integrated Monitoring Systems for Sustainable Management of Water Towers in Kenya

By

Caroline Wangeci Muriithi  
Directorate of Ecosystem Research, Planning & Audit  
(DERPA)



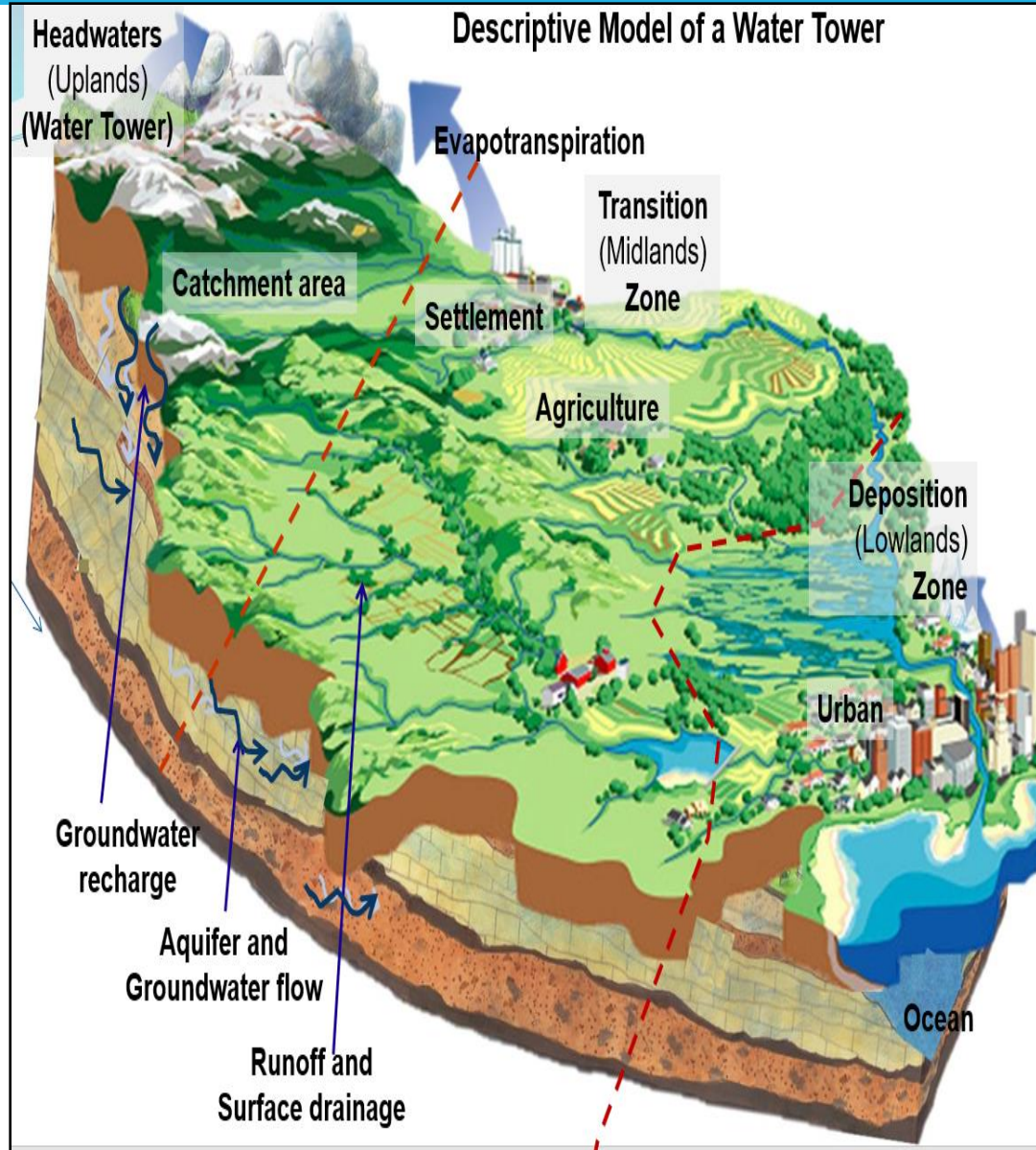
Conserved Water Towers: Our Shared Heritage

10/14/2022

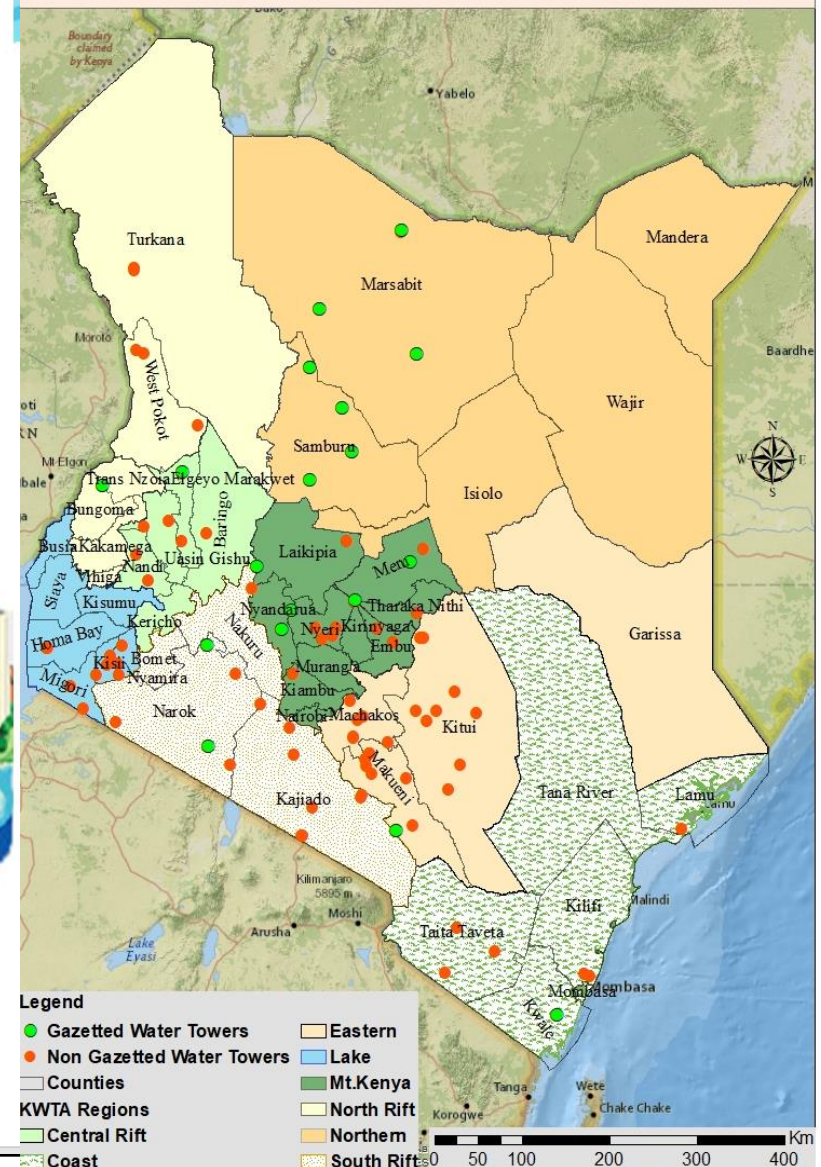
[www.watertowers.go.ke](http://www.watertowers.go.ke) [info@watertowers.go.ke](mailto:info@watertowers.go.ke)  
[@watertowerske](#)       020-2711437



# The Kenya Water Towers Ecosystem



**Distribution of Water Towers in Kenya per Region**





# Contribution of Water Towers to the Big 4 Agenda

Water towers supports **key sectors**:  
agriculture, energy, tourism,  
manufacturing and health



Agriculture - Tea

Mau Forest  
Complex  
contributes  
about Ksh.  
189 billion  
per year



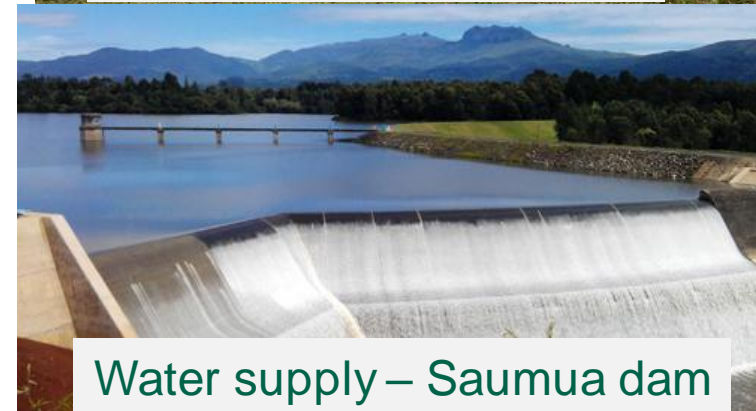
Manufacturing - Processing of  
coffee



HEP generation - Masinga  
dam



Tourism - Maasai Mara



Water supply – Saumua dam



# Threats facing the water towers

Farming on steep slopes – Elgeyo

Deep gullies in Namanga

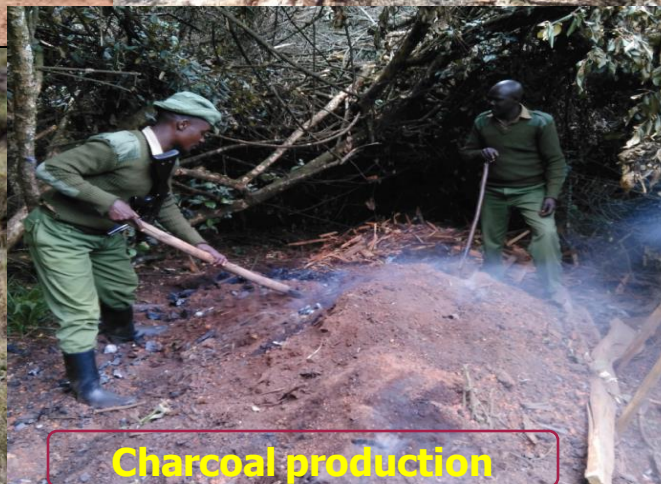


Invasive species

Forest Fires -Mau



Charcoal production



Unsustainable land management practices





# Management of Water Towers in Kenya

KWTA is mandated to coordinate and **oversee** the protection, rehabilitation, conservation and sustainable management of all the Water towers in Kenya. The Agency was established through the Legal Notice No. 27 of 2012

## Strategic Objectives

### Coordinate and Oversee -

1. **Water Towers Ecosystem Health and Resilience;**
2. Securing of Catchment Lands, Wetlands, and Critical Biodiversity Hotspots Within the Water Towers Ecosystems;
3. **Acquisition of Appropriate Infrastructure to Support Sustainable Management of Water Towers;**
4. Promotion of Sustainable Livelihood Support Programmes Within the Water Towers
5. **Establish Strategic Partnerships and Linkages for Sustainable Management of Water Towers;**
6. Undertake Institutional Strengthening for Effective Service Delivery



# Barriers Facing Water Towers Restoration

- 1) **Inadequate information** on the status of water towers -(socio-economic, physical and biological data);
- 2) **Uncoordinated approach** across partners on monitoring ecosystem health of water towers – data collection, processing and data management;
- 3) **Lack of a centralized data platform** – data in scattered and disaggregated
- 4) **No clear mechanism to share data** among the existing interested stakeholders
- 5) **Limited capacity** to monitor the status and health of the water towers ecosystem
- 6) **Limited long-term monitoring programs** and **systematic collection** and **archiving** of data

# Approaches Adopted Towards Addressing Barriers and Achieving Goal for the Water Towers Ecosystem Restoration: **Awareness**

## Community meetings



## State and non- state stakeholders



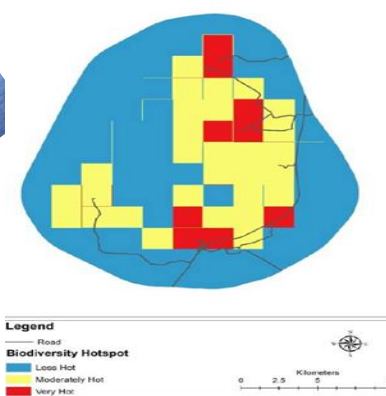
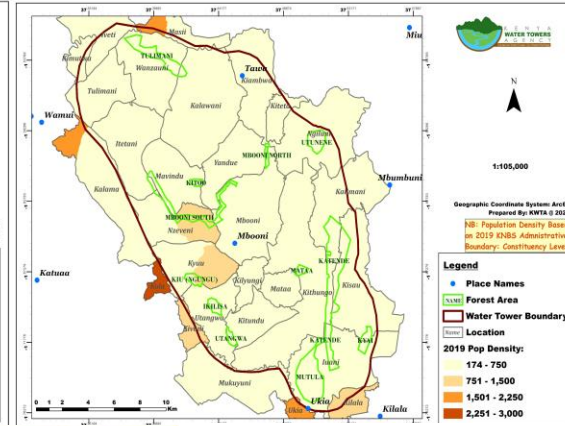
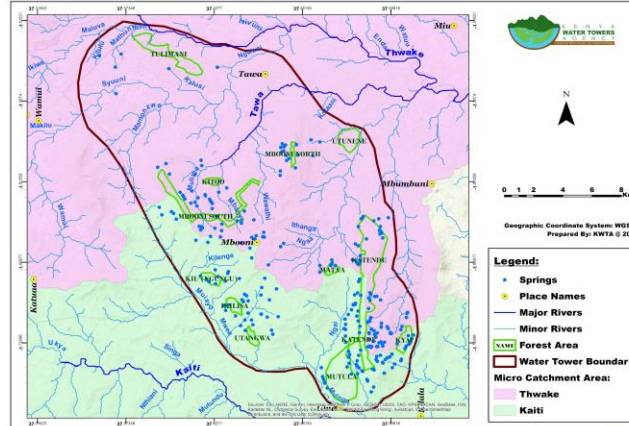
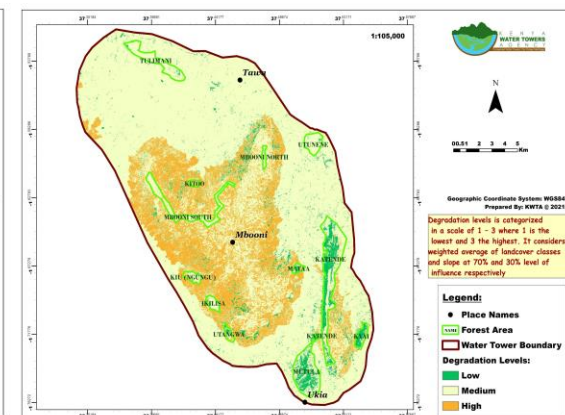
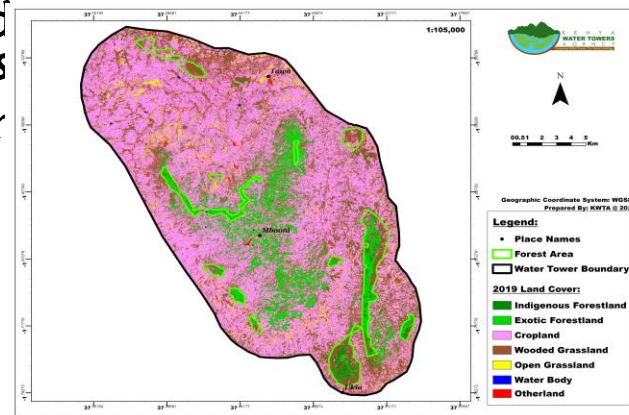
## Mapping





# Approaches Adopted: Scientific Research

1. Research, monitoring and planning of water towers
  - A. Development of Water Towers Status Report
    - ❖ Landcover Mapping
    - ❖ Biodiversity hotspots Mapping
    - ❖ Critical catchment Mapping
    - ❖ Mapping Degradation levels



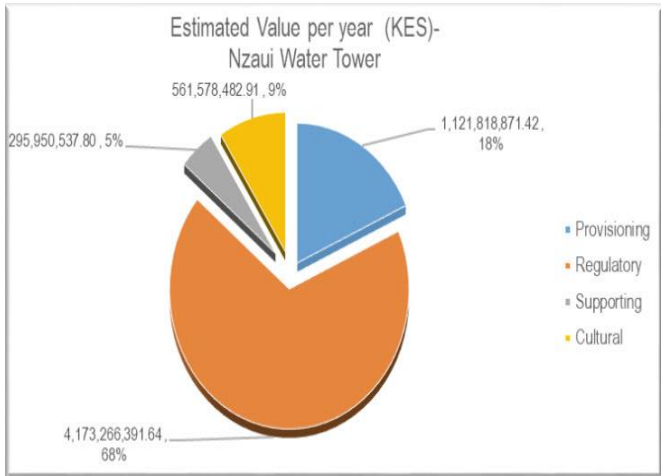
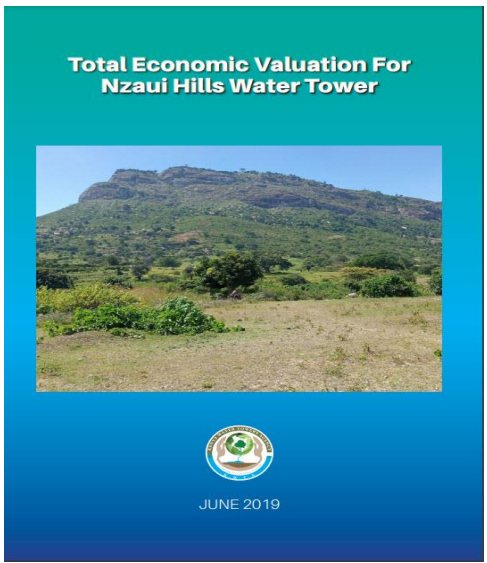
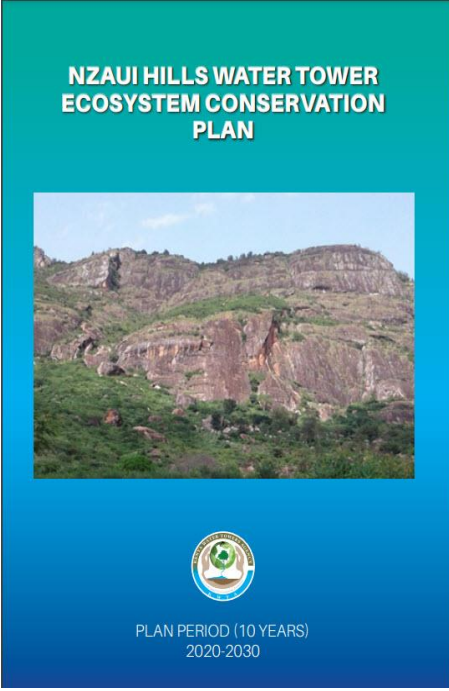


# Approaches Adopted: Scientific Research

## 1. Research, monitoring and planning of water towers

### B. Water Towers Planning and Audit

- ❖ Community Resource Assessment
- ❖ Development of Ecosystem Conservation Plans
- ❖ Undertaken Total Economic Valuation
- ❖ Audit tree seedlings in rehabilitated sites
- ❖ Develop Payment of Ecosystem Services framework



## Water Tower Protection, Surveillance and Law Enforcement Program

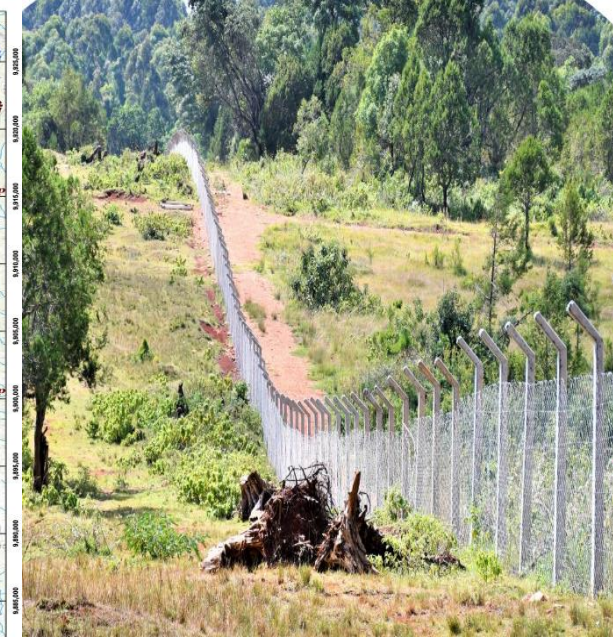
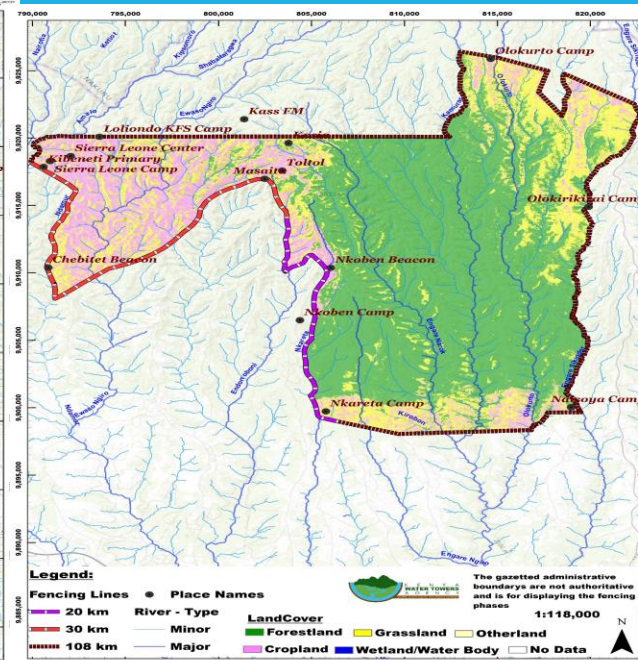
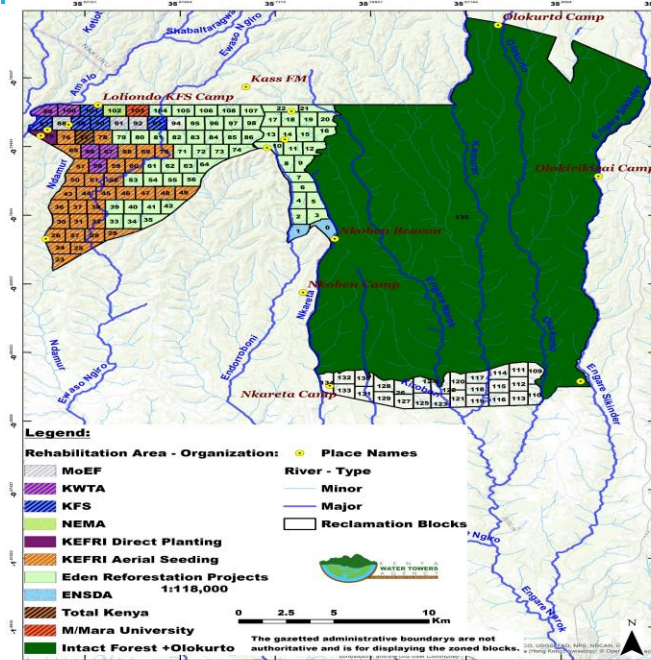
Table 5.1: WT protection, surveillance and law enforcement program

Issue	Strategy	Key Activities	Timelines			Proposed Budget in Kes (Millions)	Key Partners
			2020-2022	2023-2025	2026-2029		
Objective 1: Secure Nzaui Hills Water Tower							
Unclear Forest Boundaries (Encroachment)	Community/ stakeholder engagement, survey and mapping	<u>Preliminary assessments</u> <ul style="list-style-type: none"><li>Identify relevant multi-Agencies for the boundary survey including (KWTA, County Government of Makueni, Area Chiefs, KFS, Survey of Kenya, security agencies, CFA) and hold preliminary meetings</li><li>Undertake community sensitization in all three locations and identify key issues with respect to boundary establishment</li><li>Conduct a reconnaissance and preliminary surveys to establish the scope of work, areas with high encroachment, human and capital resource requirements, time to undertake the exercise and identify teams necessary</li><li>Develop detailed programme of work-What activities need to be undertaken, who, when and how, time required and Budget</li></ul>				4.5	KWTA, County Government of Makueni, Area Chiefs, KFS, Survey of Kenya, security agencies, CFA
		<u>Constitution of boundary survey teams and Boundary Survey</u> <ul style="list-style-type: none"><li>Identify specific persons from the relevant Multi-Agencies, develop and adopt Terms of References (ToRs)</li><li>Establish all necessary background information-Maps, history, levels of encroachment, community issues</li><li>Draw an operational plan and undertake a 2<sup>nd</sup> Community sensitization (to be undertaken when the team is on the ground)</li><li>Undertake boundary Survey to reconfirm the Boundaries of Nzaui Hills Water Towers</li></ul>				35	KWTA, Survey of Kenya, KFS, Ministry of Interior and Coordination of National Government, County Government of Makueni, CFA

Nzaui Hills Water Tower Integrated Ecosystem Conservation Plan 2020-2030 37



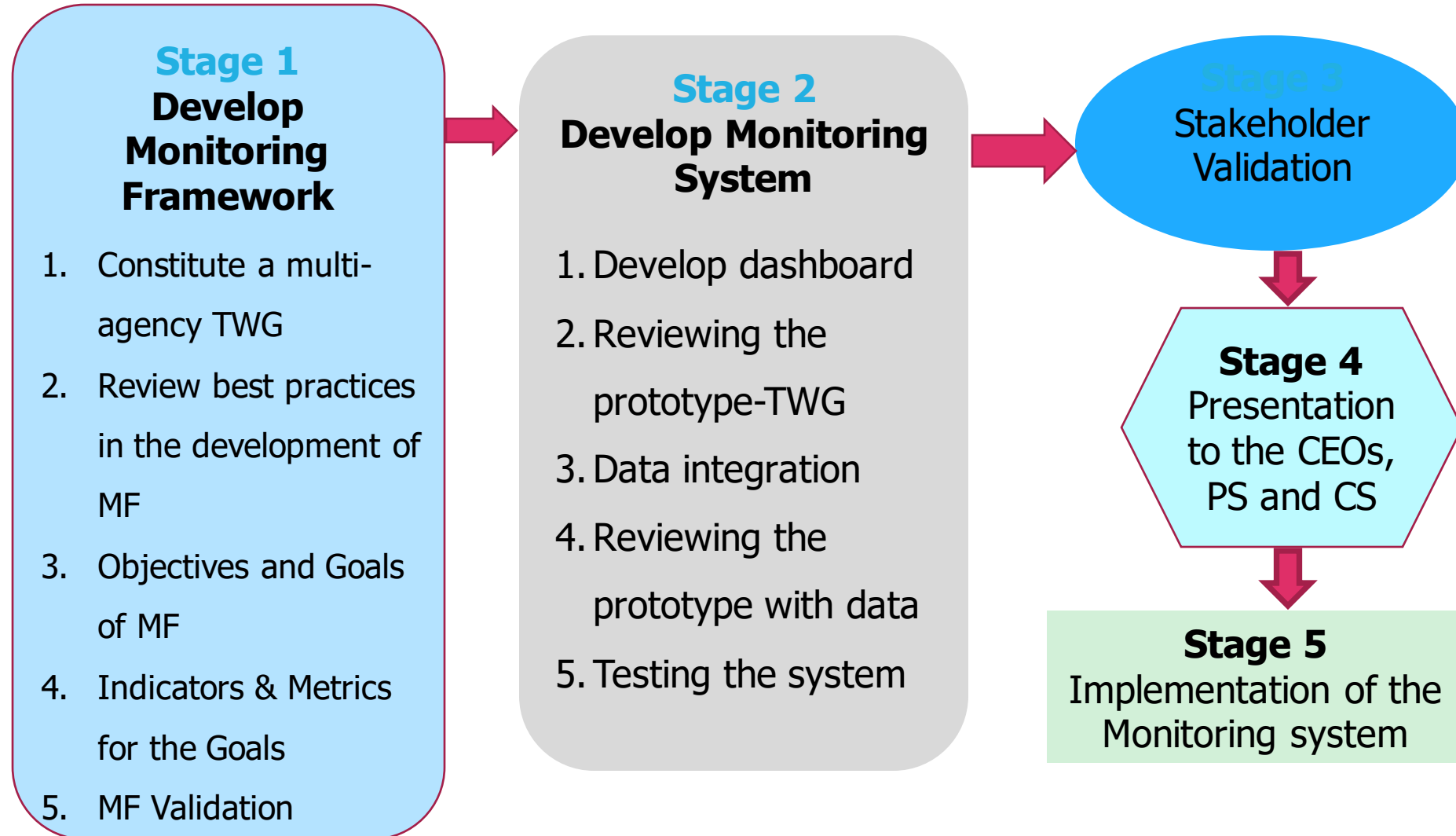
# Approaches Adopted: Implementation and monitor water towers ecosystem





# Integrated Water Towers Monitoring System

## *Process of developing a Monitoring system*





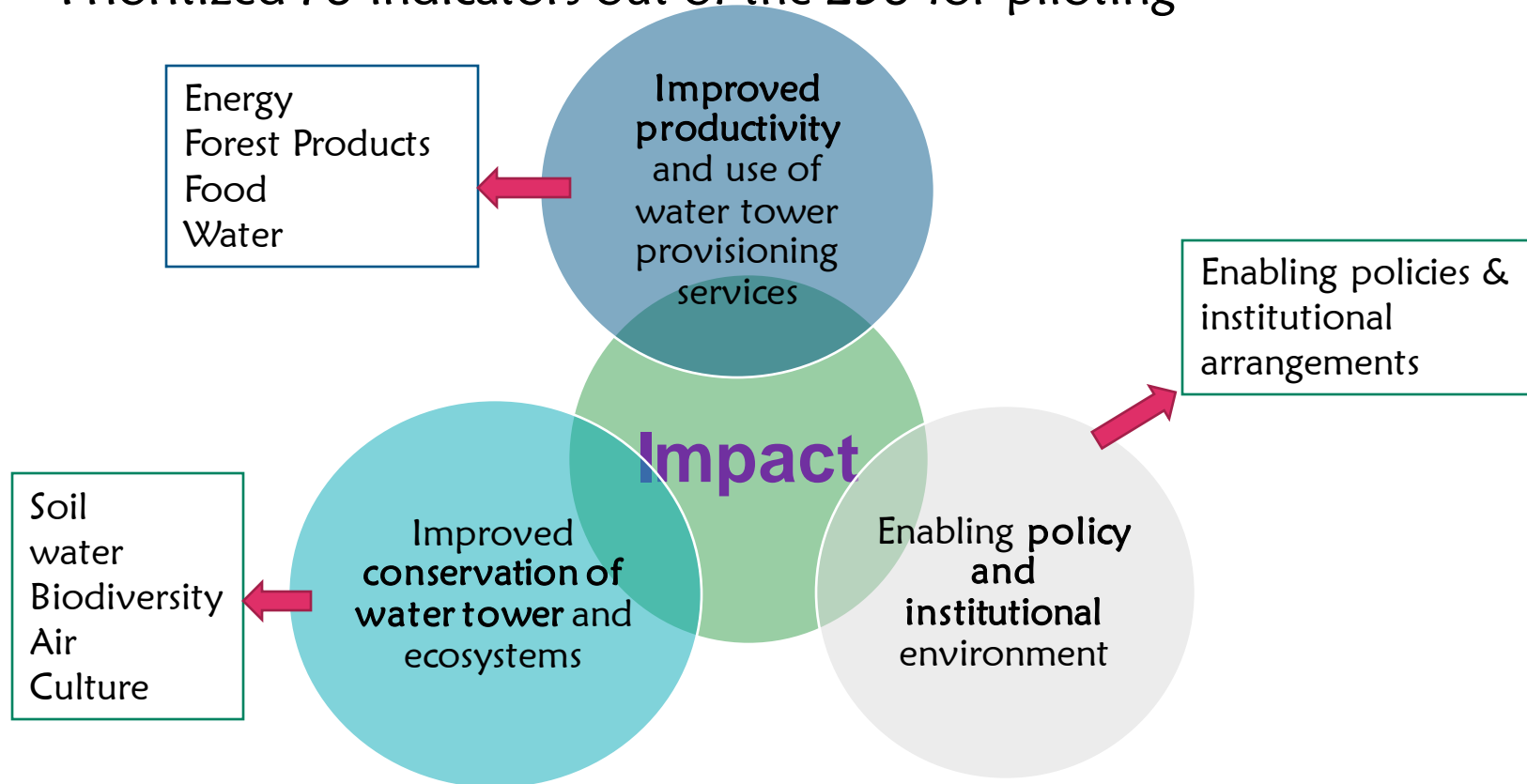
# Process of developing the Monitoring System

- **Multi-stakeholder driven-** developed through a Technical Working Group bring on board **18 institutions** (mainly state actors)
- **Technical support from World Resource Institute (WRI)**

1. Kenya Forest Service	11. Kenya Institute for Public Policy Research and Analysis
2. Council of Governors	12. Ministry of Water and Sanitation
3. Ministry of Agriculture	13. National Museums of Kenya
4. Kenya Forest Research Institute	14. Nature Kenya
5. Kenya Metrological Department	15. Ministry of Environment and Forestry
6. Kenya Wildlife Service	16. Ministry of Energy
7. Climate Change Directorate	17. Kenya National Bureau of Statistics
8. Water Resources Authority	18. Ministry of Industrialization and Trade
9. National Environment Management Authority	
10. World-Agro Forestry Center -ICRAF	

# IWTMS Goal: Sustainably Managed Water Towers and Ecosystem

- Identified three main goals
- 256 indicators to be monitored within the water towers
- Prioritized 76 indicators out of the 256 for piloting

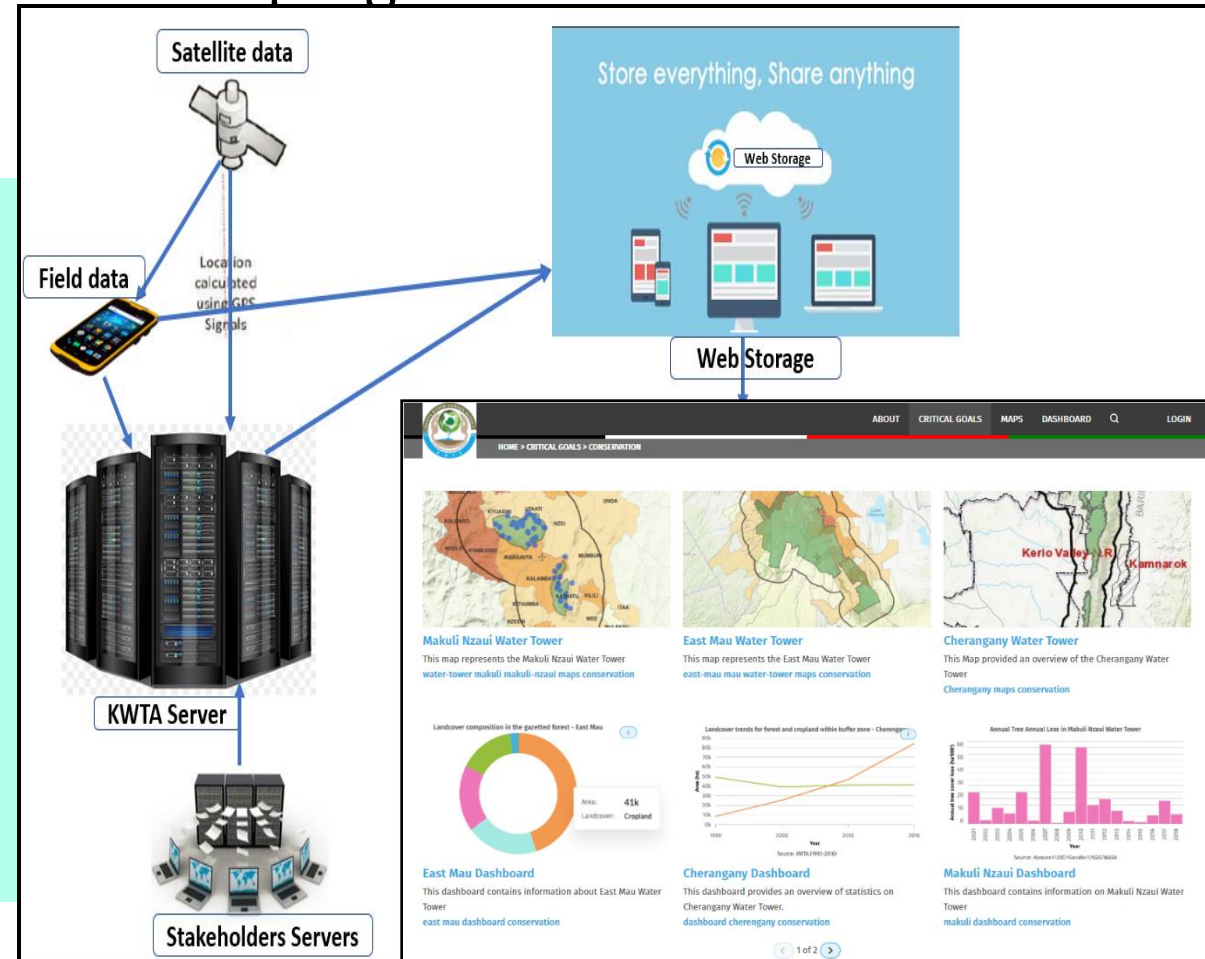


# Integrated Water Towers Monitoring System(IWTMS)

KWTA has developed an Integrated Monitoring System for collecting and integrating data from various stakeholders to inform implementation and track progress towards restoration of water towers

Platform for **managing** and **visualizing** water towers **information** via a web platform

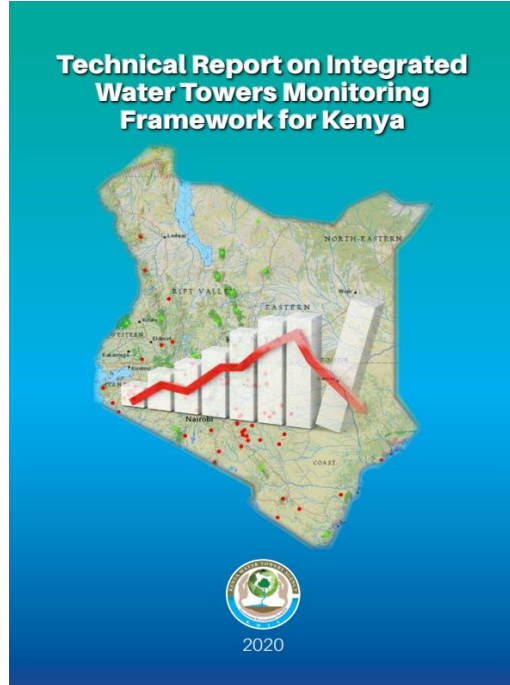
**Integrates data** from various **stakeholders**





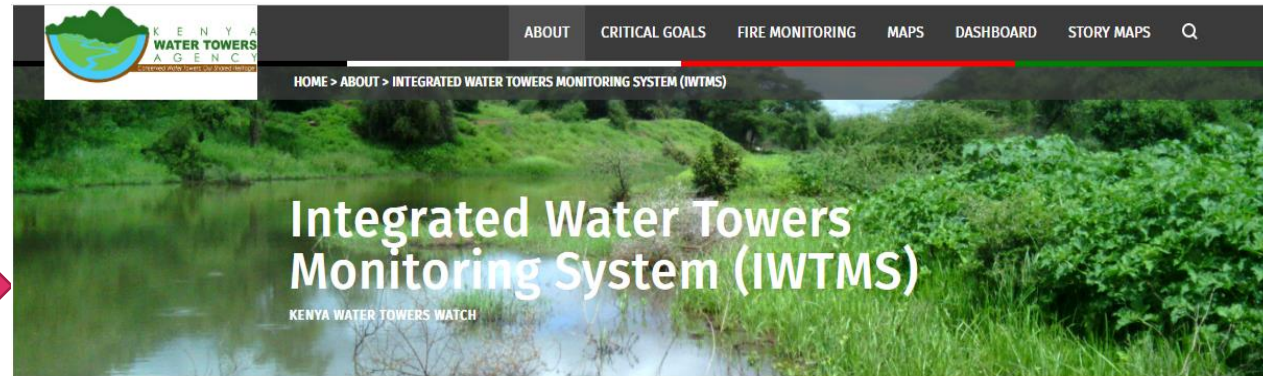
# Framework to System

## Water Towers Monitoring Framework



Provides guidance on **indicators, metrics and criteria** for monitoring within the Water towers

## Water Towers Monitoring System Portal - Home Page



### Background of Integrated Water Towers Monitoring System (IWTMS)

The Water Towers are multi-functional and provide significant ecosystem goods and services that are important for the livelihoods, hydrology and biodiversity of the surrounding communities and the wider region in which they occur.

However, wanton destruction of these important ecosystem has led to the country experiencing prolonged dry season towards the end of 2017 which led to acute shortage of water flows resulting to low water levels and drying up of rivers, streams and wells. This situation has been occurring over the years and is attributed to deforestation; degradation and encroachment of water towers; catchment and riparian areas. In addition, expansion of agricultural and settlement activities into forested areas; unsustainable land-use practices; and overharvesting of forest resources in the farmlands have aggravated the problem. This therefore call for deployment of technologies to aid in effective monitoring, surveillance, tracking and other intervention for efficient and sustainable water towers management. The goal of the Water towers watch is to provide cost-effective, scientifically based and integrated information on ecosystem conditions to inform programs, and policies intended to protect and manage the Water Towers

The Kenya Water Towers Agency Strategic plan for the year 2014-2019 provided need for development of infrastructure and tools for monitoring ecosystem health of the water towers. The Agency therefore formed a technical working group bringing together total of 17 institutions, mostly drawn from Government institution to help in developing the framework which highlight the indicators and metrics to measured so as to report on the health status of the water towers.

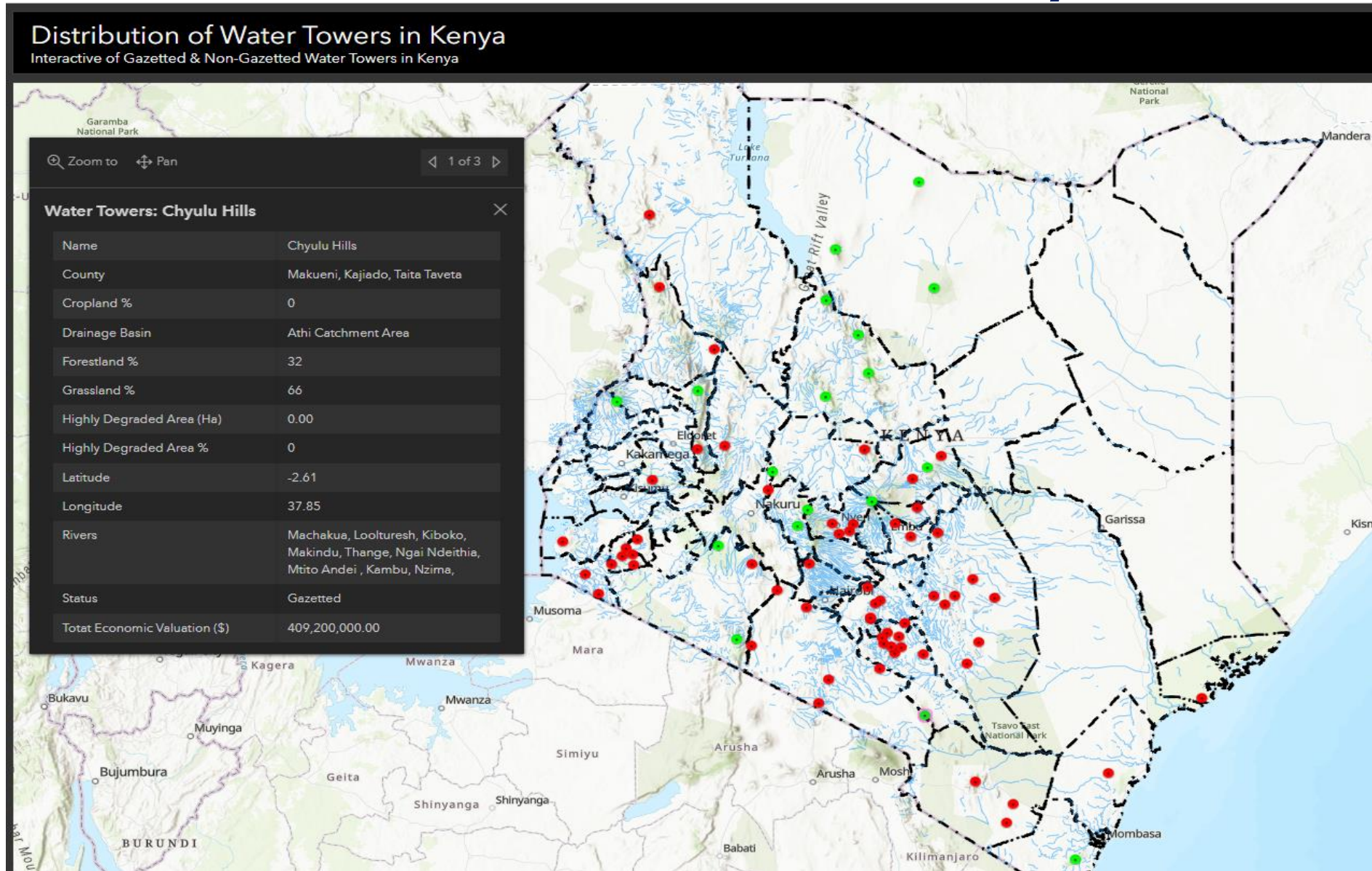
The framework was then transition to an integrated water towers monitoring system (referred to as Water Towers Watch). The Water Towers Watch is a web-based system developed in collaboration with World Resources Institute. It comprises of a dashboard for visualizing water towers maps and a dashboard showing graphs and pie charts of trends and proportion of indicators being reported.

<https://www.arcgis.com/apps/dashboards/073aae6540e24506bc6f65f2e307162b>

Integrates datasets collected and processed by various institutions in form of maps and graphs (dashboard)

# Integrated Water Towers Monitoring System

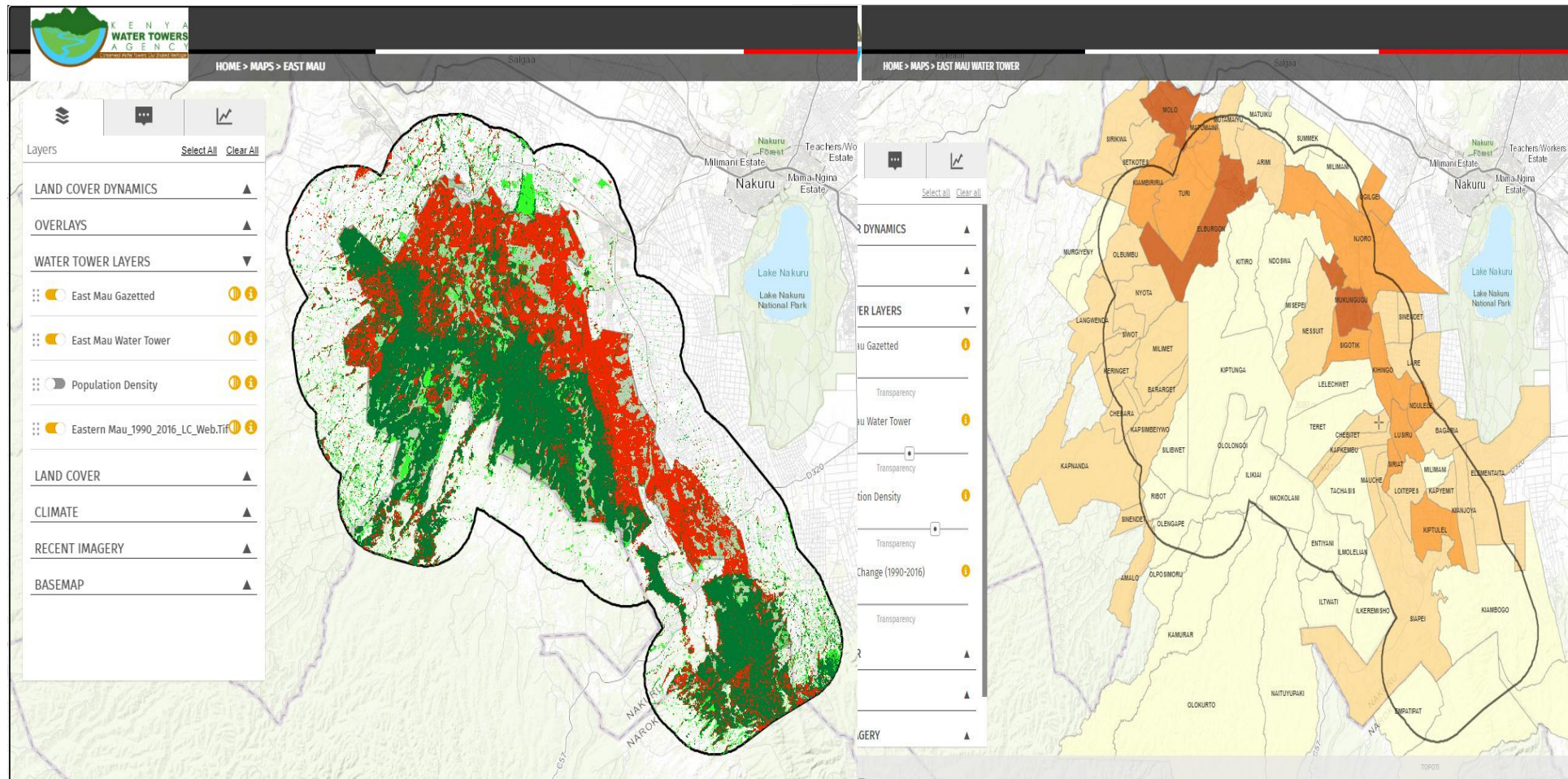
## *Portal – Water Towers Interactive Map*





# Integrated Water Towers Monitoring System

## *Portal – Maps (15 uploaded*



[East Mau Maps Portal Link](#)



# Integrated Water Towers Monitoring System

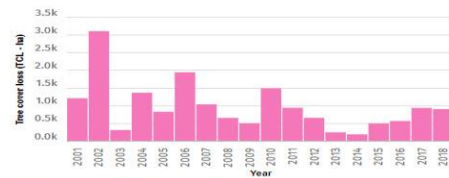


## East Mau Water Tower Dashboard

Tree Cover Loss and Carbon Emissions

Annual Tree Cover Loss in East Mau

Tree cover loss data in East Mau

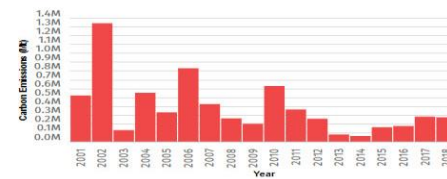


Source: Hansen/UMD/Google/USGS/NASA

PNG

Carbon Emissions from Tree Cover loss in East Mau

Carbon emissions in East Mau Water Tower



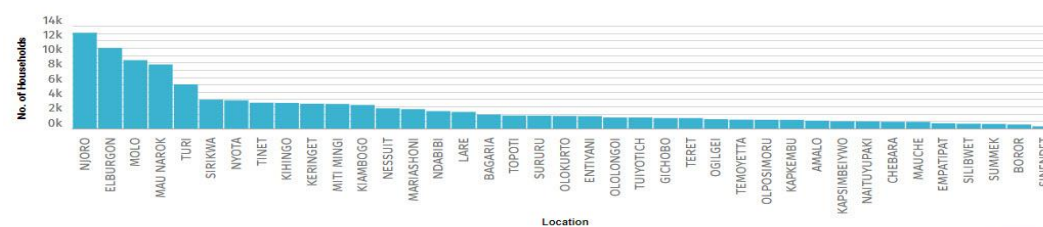
Source: Hansen/UMD/Google/USGS/NASA

PNG

## Water Tower Population

Number of Households in East Mau Water Tower

Number of households around the water tower



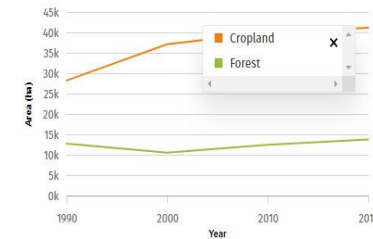
Source: KNBS (2009)

PNG

Landcover composition in the gazetted forest and buffer zone

Landcover trends for forest and cropland within gazetted forest - East Mau

Landcover trends for forest and cropland within the gazetted forest - East Mau

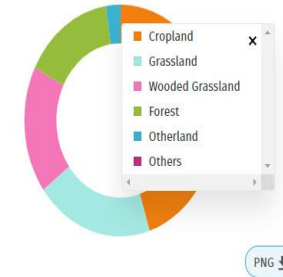


Source: KWTa (1990 - 2016)

PNG

Landcover composition in the gazetted forest - East Mau

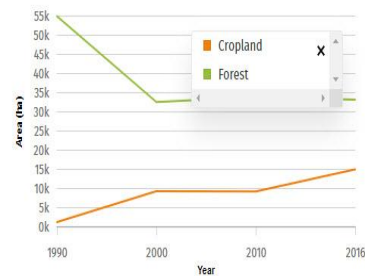
Landcover composition in the gazetted forest - East Mau



PNG

Landcover trends for forest and cropland within buffer zone - East Mau

Landcover trends for forest and cropland within buffer zone - East Mau

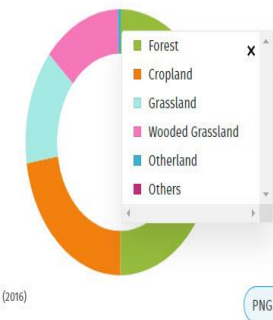


Source: KWTa (1990 - 2016)

PNG

Landcover composition in the buffer zone - East Mau

Landcover composition in the buffer zone - East Mau



PNG

[East Mau Dashboard Portal Link](#)

# Challenges Faced

1. Financial Limitations
2. Software Updates
3. Tear and wear of equipment
4. Data acquisition limitations
5. Data sharing limitations
6. Modification of the GUI
7. Skilled Personnel

# Future Plans

1. Ensure **goodwill** among institutions providing data – Reaching out to the Key Decision Makers (C.E.Os)
2. **Actualizing the data sharing guidelines** (protocol)
3. Official Launch of the System
4. Upload all data collected for the already assessed Water Towers
5. Increasing Technical Capacity
6. **Capacity building of institution** on data management and utilization of the system
7. Acquiring/Upscaling to ArcGIS Enterprise
8. Developing **algorithms** to mine, process, and visualize data from various sources
9. **Development of Mobile applications** to facilitate **crowdsourcing data from communities and rangers**
10. Tracking User Traffic using Google Analytics.



10/14/2022



# Thank you

East Mau Water Towers



# Panel: Challenges to owning, operating, and maintaining NBS



**Melissa de Kock**  
Head of the Biodiversity,  
People and Landscapes  
Unit  
UNEP



**Hannah Benn**  
Engagement Manager  
Pegasys



**Kevin Mutia**  
Professional Officer, Urban  
Systems  
ICLEI Africa



**Larissa Duma**  
Urban Ecology and Resilience  
Specialist  
World Bank

**Intro**

**Session 1**

**Session 2**

**Break**

**Session 3**

**Conclusion**

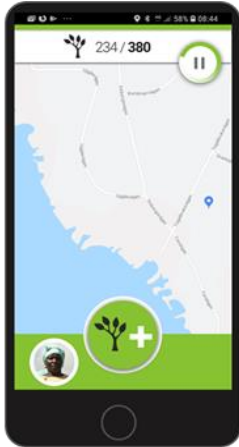
# Tree Tracking & Verficiation- Freetown, Sierra Leone



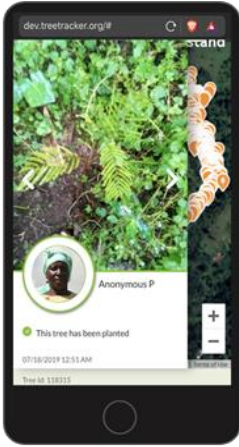
Mobile App  
Registration



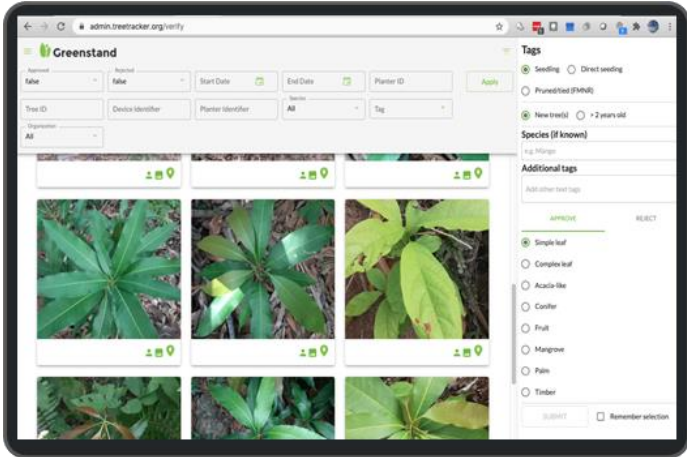
Take Selfie



Select  
'Plant Tree'



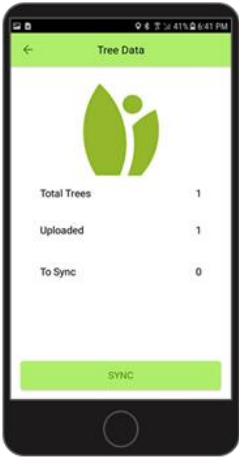
Plant Tree,  
Take Photo,  
'Send'



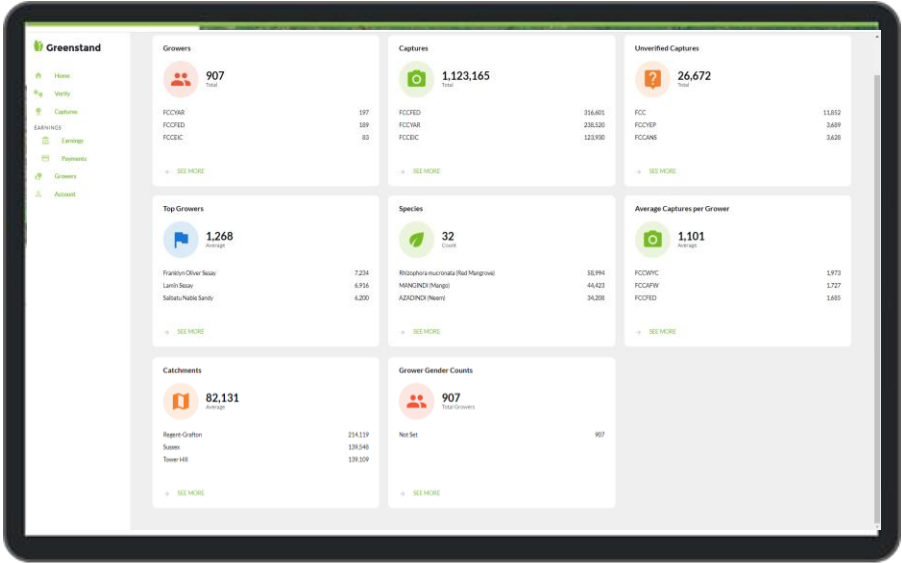
Planted Tree is Third Party  
Verified Using a  
Dashboard



Send Tree  
Payment



Tree Tracking



Tree Monitoring Dashboards



# Session 2 Summary

Photo: Andrew Wu, World Resources Institute: Truck transporting plants, Nairobi, Kenya



Intro

Session 1

**Session 2**

Break

Session 3

Conclusion

**Break**

**Intro**

**Session 1**

**Session 2**

**Break**

**Session 3**

**Conclusion**

## Session 3.

# Scaling and replicating NBS infrastructure investment



# Scaling and Replicating NBS Infrastructure Investment



Photo: Aaron Minnick | World Resources Institute; Kakamega Forest, Kenya

- Case Study
  - Mary-May Jeremie, Chief Executive Officer, Seychelles' Conservation and Climate Adaptation Trust (SeyCATT)
- Panel session
  - Kevin Massingham, FSD Africa
  - Ian Isherwood, WWF Kenya
  - Marie-May Jeremie, SeyCATT
- Summary

# Case Study: Seychelles Debt-for-Nature Swap



**Marie-May Jeremie**

Chief Executive Officer  
SeyCCAT

Intro

Session 1

Session 2

Break

**Session 3**

Conclusion

# Panel: **Barriers to Financing and Scaling NBS**



**Kelvin Massingham**  
Director, Risk and  
Resilience  
FSD Africa



**Marie-May Jeremie,**  
Chief Executive Officer  
SeyCCAT



**Ian Isherwood**  
Bankability Lead, Bankable  
Nature Solutions (BnS)  
WWF Kenya

**Intro**

**Session 1**

**Session 2**

**Break**

**Session 3**

**Conclusion**



# Session 3 Summary



**Intro**

**Session 1**

**Session 2**

**Break**

**Session 3**

**Conclusion**

# Closing remarks and next steps

Intro

Session 1

Session 2

Break

Session 3

Conclusion

# Closing Remarks



**Boris van Zanten**  
Nature-based Solutions &  
Disaster Risk Management  
Consultant  
World Bank Group



**Sun Cho**  
Country Engagement  
Coordinator  
Green Growth Knowledge  
Platform (GGKP)

**Intro**

**Session 1**

**Session 2**

**Break**

**Session 3**

**Conclusion**



# Closing Remarks



Photo: Sabin Ray | World Resources Institute; Machinga District, Malawi

- **Stay Engaged:**
  - Project Developer Survey
  - Investor Survey
- **Contribute to interviews**
- **Share innovative case studies**
- **Help build a community of practice**

# Contact

## **Rory Hunter | NBS in Africa Manager**

Cities4Forests and Natural Infrastructure Initiative

World Resources Institute

[Rory.hunter.5@wriconsultant.org](mailto:Rory.hunter.5@wriconsultant.org)

## **Lizzie Marsters| Environmental Finance Manager**

Cities4Forests and Natural Infrastructure Initiative

World Resources Institute

[Lizzie.marsters@wri.org](mailto:Lizzie.marsters@wri.org)

## **Emmie Oliver | Research Analyst**

Cities4Forests and Natural Infrastructure Initiative

World Resources Institute

[Emmie.oliver@wri.org](mailto:Emmie.oliver@wri.org)

# Appendix



# Deliverables

- **Technical Note:** By COP27, a published methodology of regional project inventory and initial findings of a rapid scan of MDB-led NBS projects in SSA
- **Workshops** in May and September 2022 with regional project developers and partners to evaluate challenges and opportunities to scale NBS
- **Searchable Project Database** of NBS projects led by MDBs, NGOs, governments, and other actors.
- **Final Report** to be published in August 2023 capturing full spectrum of trends and opportunities
- **Outreach Materials** throughout the engagement, including blogs, infographics, PowerPoints, and jointly sponsored events to disseminate key findings



Photo: Andrew Wu, World Resources Institute: Truck transporting plants, Nairobi, Kenya

# The Urgency of the Moment

