



**GF**  Global Forest  
Observations Initiative

Plenary  
9-11 May 2023

# Kenya – monitoring and reporting ecosystem restoration

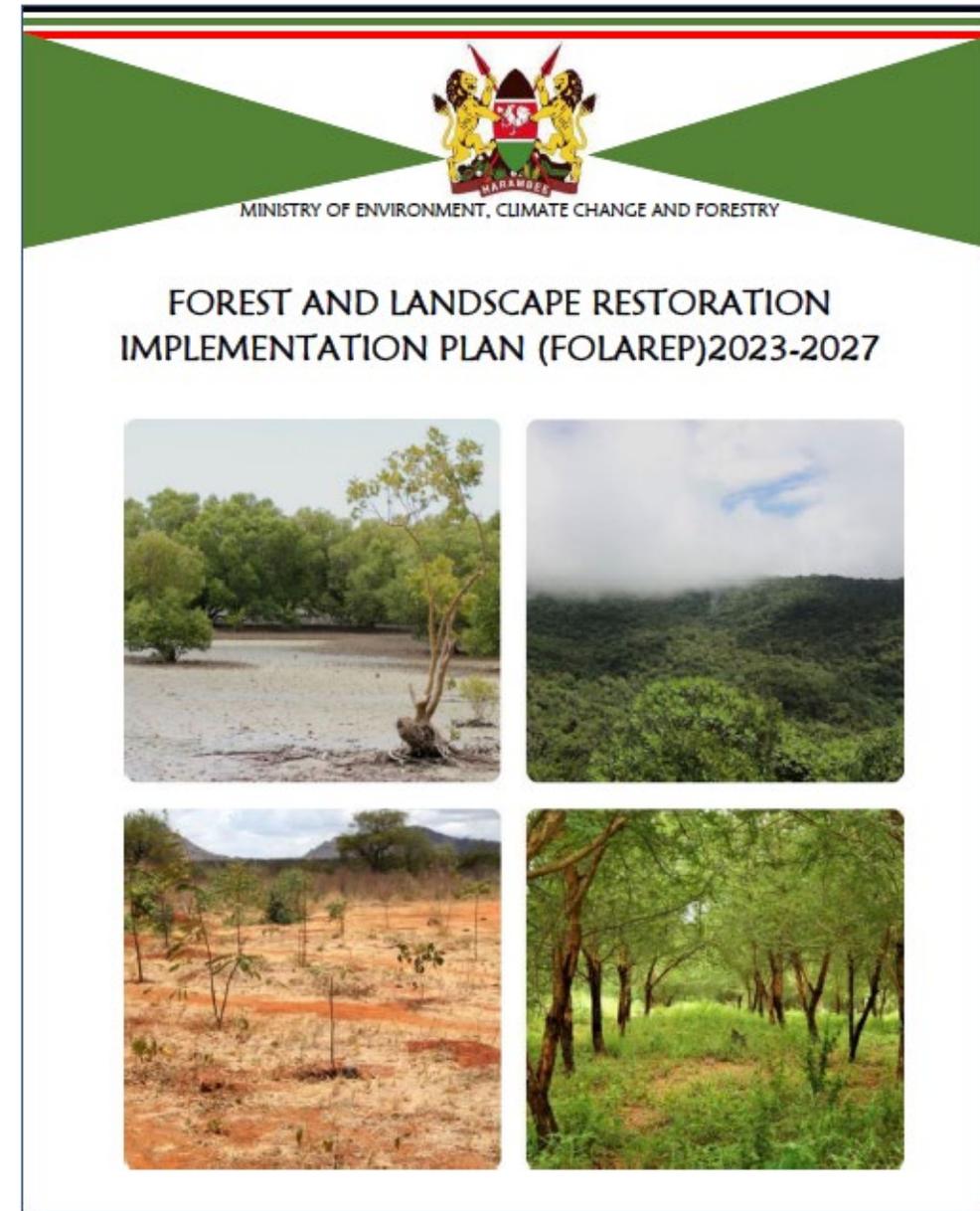
GFOI: Ecosystem Restoration Plenary

Peter Nduati, Kenya Forest Service



# Background

- 30% of Kenya's landmass is degraded
- **AFR100** Commitments to restore **5.1 million ha** of degraded land by 2030. & increase forest cover to 10% , along with other commitments through MEAs.
- Major challenge in reporting on NDCs, biodiversity, LDN AFR100 etc. in a coordinated and consistent manner, in order to reliably track the progress, outcomes and adapt restoration interventions.
- Through the FOLAREP – a cross sectoral multi—stakeholder coordination framework, the proposal for an integrated monitoring and reporting framework to report on all restoration interventions across Kenya.



# A national restoration monitoring framework

The framework is multipurpose in that it aims to ;

1. Coordinate restoration monitoring and track progress at national subnational, regional and international levels to assess failure and identify barriers.
2. At the national level it aims to enable government to easily report to MEAS and regional, national commitments ( simplify the reporting burden)
3. Further, aims for development partners to easily and comparably quantify their investments and track their impacts of restoration efforts.



# Framework development

The Kenya Forest and Landscape Restoration Monitoring Framework was developed through a consultative process led by the members of the Kenya Landscape Restoration Monitoring Technical Working Group (TWG).

The key steps involved in its development are highlighted in Figure 1. These steps outline both the process and the information sources that contributed to the framework.

**DECEMBER 2021–MARCH 2022**

**County consultations**

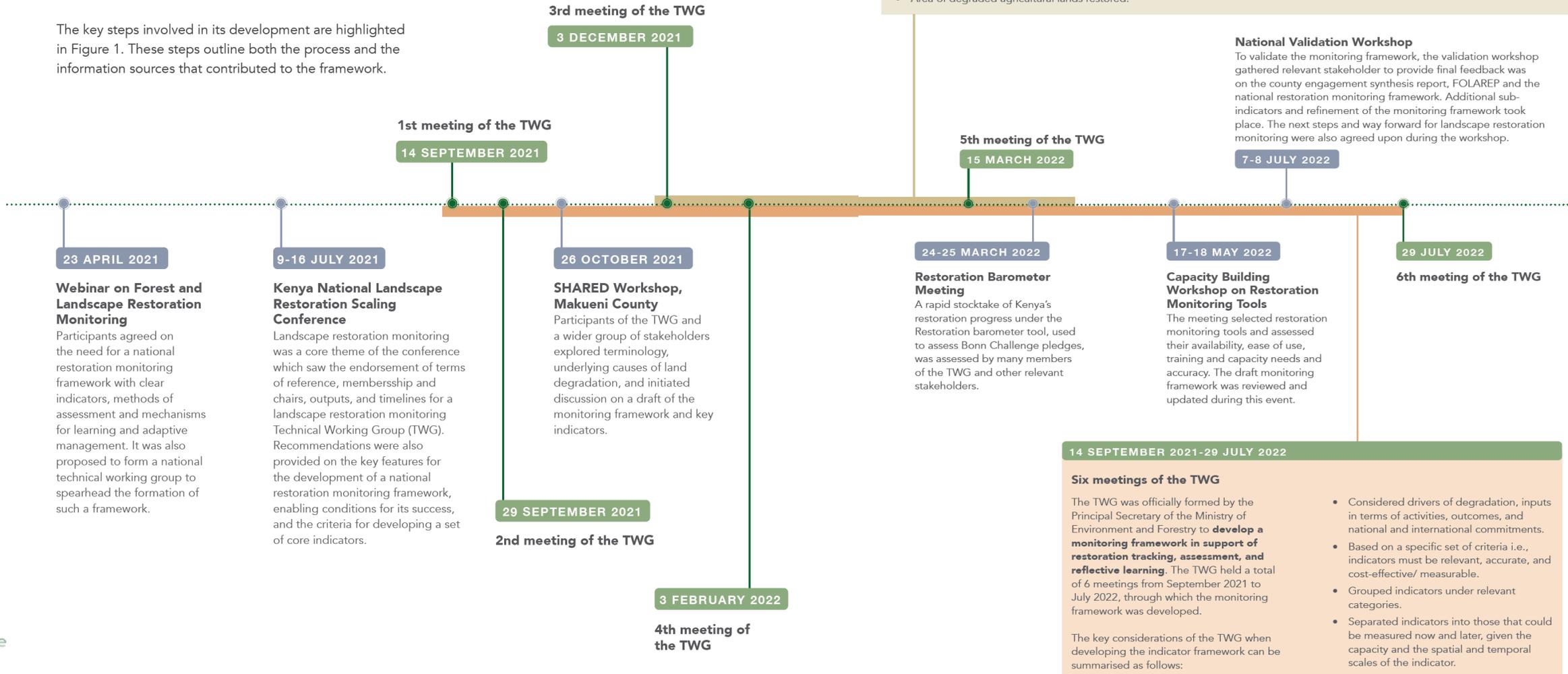
Seven engagement forums brought together national government, all 47 counties, the Council of Governors, and development partners to **review drivers of degradation and barriers to restoration, top indicators for restoration monitoring, and County Environment Committees (CECs)**, which are the proposed structures for mainstreaming forest and landscape restoration at the county level. A synthesis report of the engagements was produced.

- Area of landscapes under improved management to benefit biodiversity.
- Trends in population accessing adequate quantities of safe water in urban/peri-urban areas.

It was noted that county environment committees (CECs) are active in only 18 of the 47 counties. Further, 25 of 47 counties mentioned that county climate change entities are critical to enhancing the CECs' FLR functions. This indicates that all counties have distinct FLR monitoring structures, including CECs, monitoring and evaluation committees, and units. This distinction arises from a unique clustering and nomenclature of county departments, which highlights the importance of harmonized departments to allow for easier implementation and monitoring of FLR.

The **top five indicators crucial for a national restoration monitoring system in Kenya** as noted by counties were:

- Area of forest and forest land restored.
- Number of existing plans, policies, strategies, regulations reviewed and developed.
- Area of degraded agricultural lands restored.



# Indicator considerations

- A flexible and adaptable framework with core and additional indicators proposed
- A manageable set of indicators which captures key drivers of degradation
- Is measurable in the present and future to account for the lag and capture both effort and impact
- To understand changes in restoration investment and implementation and how these impact ecological unction.
- Builds off existing indicators which institutions and agencies collect and have experience with
- Being cognizant of the capacity which is needed to monitor against selected indicators



# Framework Structure

## PROCESS INDICATOR CATEGORIES

30 indicators | 45 Sub indicators



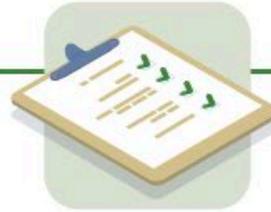
Area of land under restoration



Restoration project data



Investment



Policy and advocacy



Value chains



Communication and knowledge

## OUTCOME INDICATOR CATEGORIES



Land health (LDN)



Tree cover and type



Socio-economic



Capacity



Biodiversity



Climate change



Category	Indicator	Sub-indicators	Metrics	Frequency
 <b>Area of land under restoration</b>	1 Area of landscape under improved practices and/or undergoing restoration	A. Land use type: forest, grassland, crop land, rangeland etc. from national typology B. Restoration type from national typology	A. Hectares B. Hectares	Annually
 <b>Restoration project data</b>	2 Project name	A. Number of community members engaged and disaggregated by gender, age and other groups	A. Open B. Geospatial polygon, GPS coordinates C. List/Typology D. List/Typology E. List F. Start /end date G. List	Annually
	3 Project location (geospatially explicit)			
	4 Restoration actions			
	5 Beneficiaries of restoration initiatives (disaggregated)			
	6 Project partners (names of institutions)			
	7 Duration of the project			
	8 Challenges and mitigation in the project			
 <b>Investment</b>	9 Amount invested in landscape restoration (KSH/USD)	A. Source of funding/investment (private, donor, national government) B. Types of funding (loans, grant, equity, in kind) C. Where it was invested (county, sub-county, ward) D. How it was invested (project, finance access, policy)	A. List and KES / USD B. List C. Location (county, sub county, ward) D. List (project, finance access, policy)	Annually

# Tools to measure indicators

- A range of tools exist, which could be used to monitor several indicators
- How easy are they to use? How much training is required? How accurate are they? Are they available for deployment? Field based or EO tools?



## Earth observation tools

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**KEY:**

**Ease of use without training:**

👍👍👍👍 Easy

👍👍👍 Moderate to easy

👍👍 Moderate

👍 Moderate to difficult

**Training:**

📄 Minimal training required

📄📄 Some training required

📄📄📄 Significant training required

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COLLECT EARTH (MOBILE)

**Indicators it can measure:**  
Socio economic data, Project investment, Knowledge, Tree cover, Land cover, Forest cover, Area of land under restoration, Biodiversity. (Earth observation tools are unable to differentiate invasive species in tree/vegetation cover)

**Accuracy:**  
Very accurate

**Current availability:**  
Free and open source; available on Google Play Store

**Ease of use without training:** 👍👍👍👍

**Training required:** 📄

COLLECT EARTH (ONLINE)

**Indicators it can measure:**  
Land use change, Seasonality of vegetation, Area of land degraded, Land health, Area of forest /tree cover, Management practices, Area with agricultural practices, Type of agricultural systems, Area under restoration over a period of time, Degraded land area

**Accuracy:**  
Accuracy challenges unless ground-truthed

**Current availability:**  
Free and open source; available on Google Play Store

**Ease of use without training:** 👍👍👍👍

**Training required:** 📄📄



# Data & reporting framework for restoration monitoring

## Identified features

The TWG has identified several important features of an online data management and reporting framework:



Allows for **continuous monitoring** (i.e., real-time monitoring)



A **private database** and also a **public platform** for information dissemination.



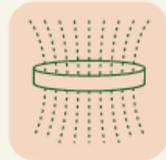
Contains data /information **sensitivity classification**.



**Guided by data sharing protocols** to avoid duplication of data collection efforts where necessary and ensure data contribution to the system.



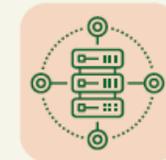
**Accessible** and user-friendly.



**Captures/aggregates all indicators** in the framework.



**Builds on existing institutional structures**.



**Promotes data sharing** by creating incentives such as competitive reward systems.



A **gateway to other systems** (especially if the information is not available).



Contains only **verified data and information**.



**Designed in consultation** with the stakeholders.



# National strategy for achieving and maintaining over 30% tree cover by 2032.

- Launched as a *whole-of-government* and *whole-of-society-approach*;
- **15 billion trees** for restoration of **10.6 million ha** of degraded lands by 2032;
- Increase **national tree cover to 30%** from current 12.3%;
- Multiple interventions across landscapes; Conservation and commercial drivers;
- 15 billion tree growing campaign - **300 trees per person over ten years** ;
- A **Green Army of youth and women** a major facet of the initiative.
- **Green Ambassadors** at national, county and sub-county level
- Multi-layered governance structure;
- Requires **shared responsibility, enhanced ambition, innovation, renewed commitment and adequate funding.**



# Thank you.

Peter Nduati, Kenya Forest Service

