Forest & Landscape Restoration in Uganda: The Case of FMNR

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Presented at the FMNR Awareness raising and AGM

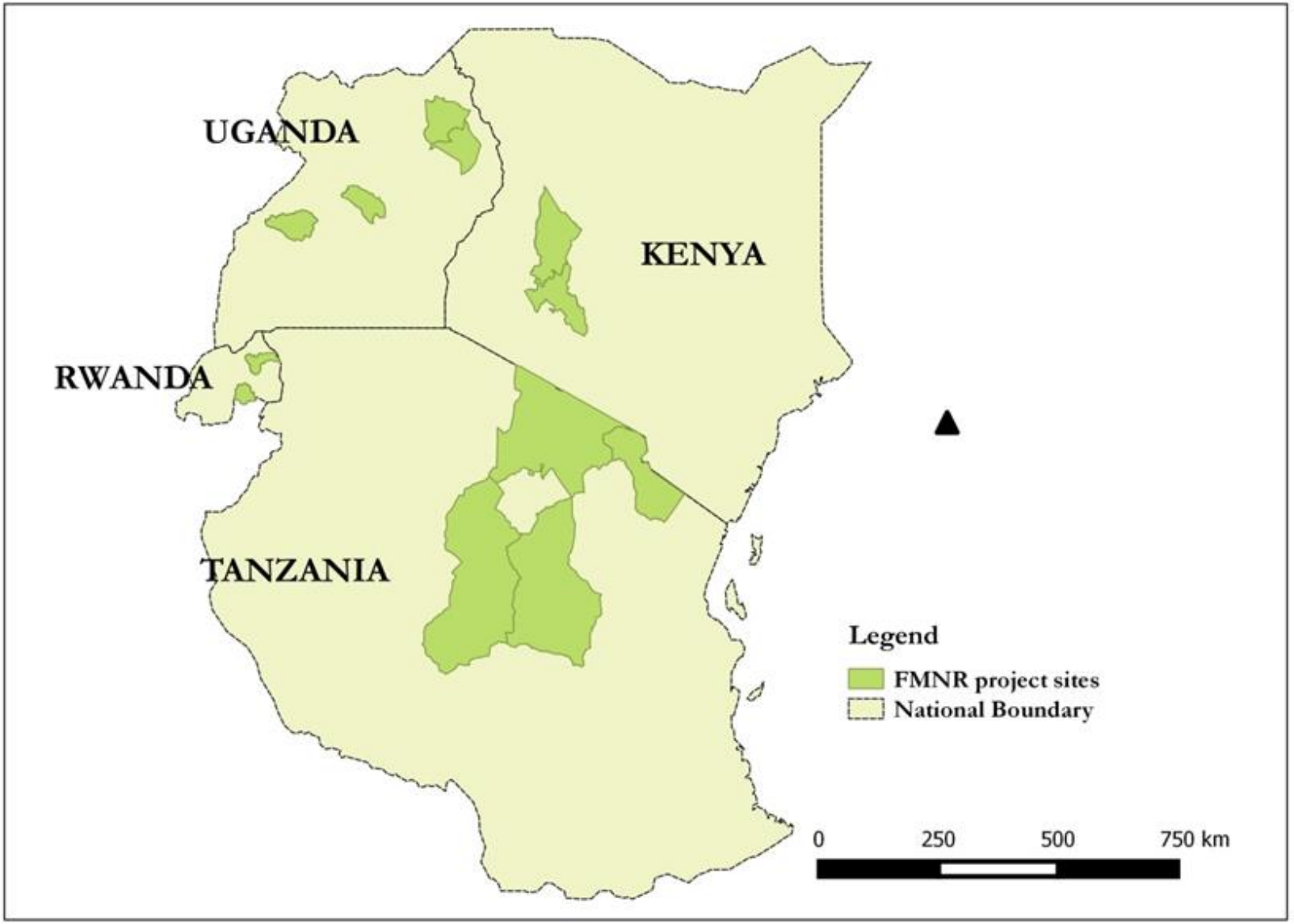
Hotel Triangle, Kampala

15th September 2017

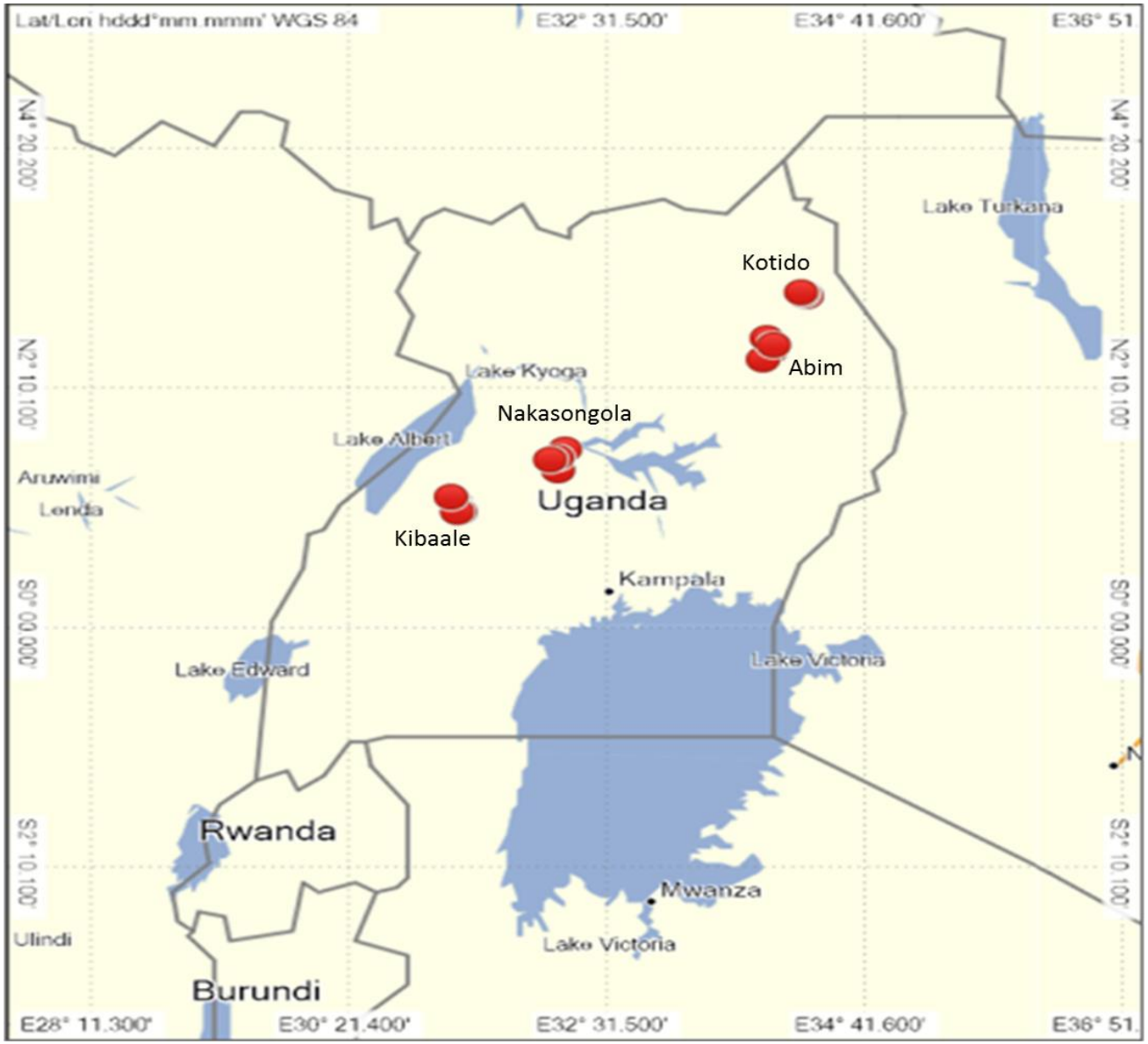
Outline

1. FMNR project
2. Key messages
3. Deforestation in Uganda
4. Forest Landscape Restoration (FLR)
5. FMNR in context of Uganda
6. Benefits of FMNR
7. Challenges
8. Policy Recommendations & Conclusion
9. Africa Tree Finder App – supporting FLR

FMNR project sites in the region



FMNR sites in Uganda



18 research sites in four project districts

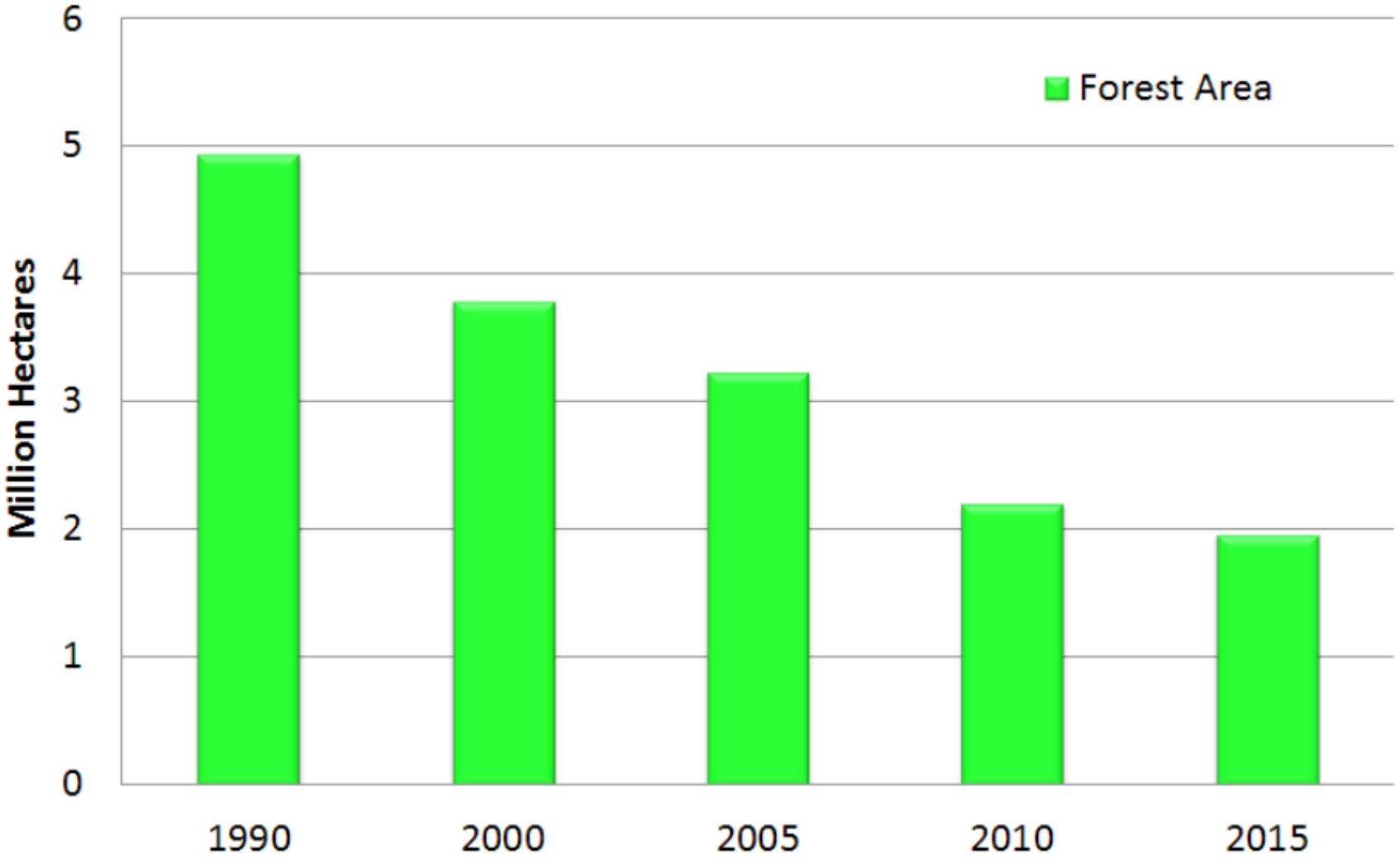
Key messages

1. FMNR is a rapid, low cost and easily replicable form of social forestry for restoring and improving agricultural, forested and pasture lands.
2. Following Uganda's commitment to restore 2.5M ha of deforested and degraded land as a pledge towards the Bonn Challenge and AFRI100, FMNR is recommended as one of the cheap and fast options for achieving forest and landscape restoration.
3. FMNR has demonstrated the potential to improve growth rates of indigenous trees, improving pastures and increasing biodiversity thus making it attractive to farmers and communities.
4. Local Governments and community institutions are key stakeholders in promotion of FMNR, once their capacities are enhanced, they will put in place the necessary policy environment to ensure that local communities realize the benefits of FMNR.
5. Uganda has a conducive policy environment for FLR but short of practical actions

Deforestation in Uganda

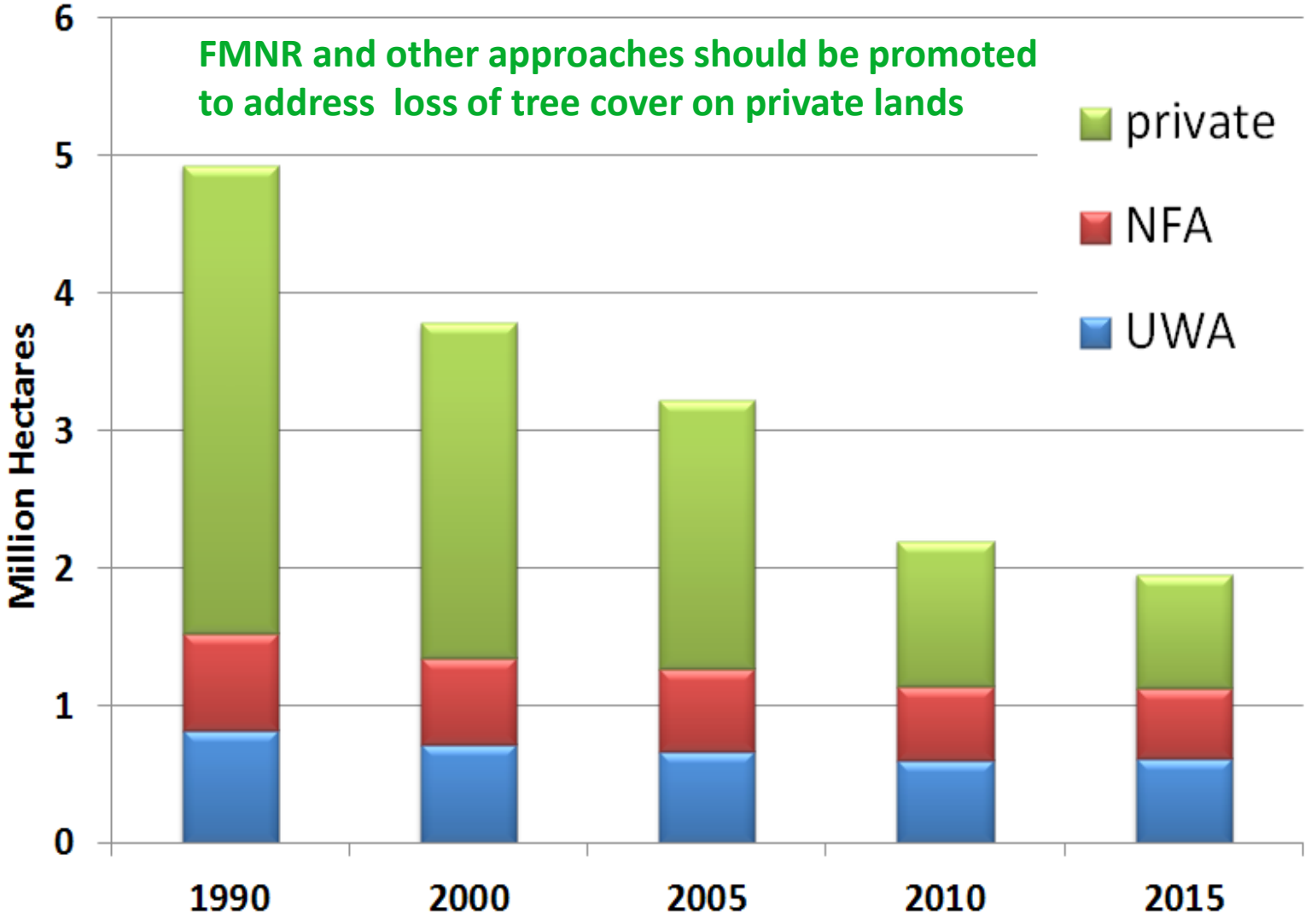
1. By late 1990s and early 2002, 70% of trees were on private lands & 30% in forests and national parks
2. Today we mainly talk of the 30% in forests and national parks
3. The 70% on private lands has been reduced by more than half...
4. Uganda is now losing 200,000 ha of forest/tree cover per year.
5. 1990 forest cover was 24% current estimate (2016) 9% - this should raise a serious concern.

Forest cover changes in Uganda 1990-2015



National Commitment: Restoring 2.5 million ha by 2030

Forest cover change by management regime 1990-2015



Clearly more tree loss is on private land but more focus is on forests under NFA and UWA, DFS is largely ignored

Forest and Landscape Restoration in Uganda

Report noted that there is equally increasing degradation in agricultural land and this should be reversed through planting of indigenous tree species in mosaic arrangements- mixture.

Forest and Landscape Restoration in Uganda

1. With an ambitious target of taking Uganda to 1990 forest cover levels (24%) by 2030
2. Bonn Challenge & AFRI100- Uganda committed to restore 2.5 million ha of land to forests/trees by 2020/2035.
3. National vision – restore forest cover to 1990 levels by 2030 –this requires bold steps to achieve.
4. Restoring 2.5M Ha would contribute about 89% of the aspired 24% (1990 levels) – we're already short of our targets
5. Forest Landscape Restoration in Uganda revealed about 8.1Million Ha requiring restoration
6. We need practical plans to achieve this & FMNR is one potential tool.
7. We also need a tracking/monitoring mechanism to guide our actions

Restoration opportunities and options for the different landscape zones in Uganda

#	Zone	Acreage for restoration (Ha)
1	Afro-montane	691,161.1
2	Karamoja	1,775,156.2
3	Lake Victoria Crescent	394,491.0
4	Northern Moist	2,631,314.7
5	South East Lake Kyoga Flood Plain	393,639.5
6	Southwest Rangelands	1,154,340.1
7	Western Mid-Altitude	1,039,519.5
	Total	8,079,622.10

FMNR should be one of the options in restoring these areas

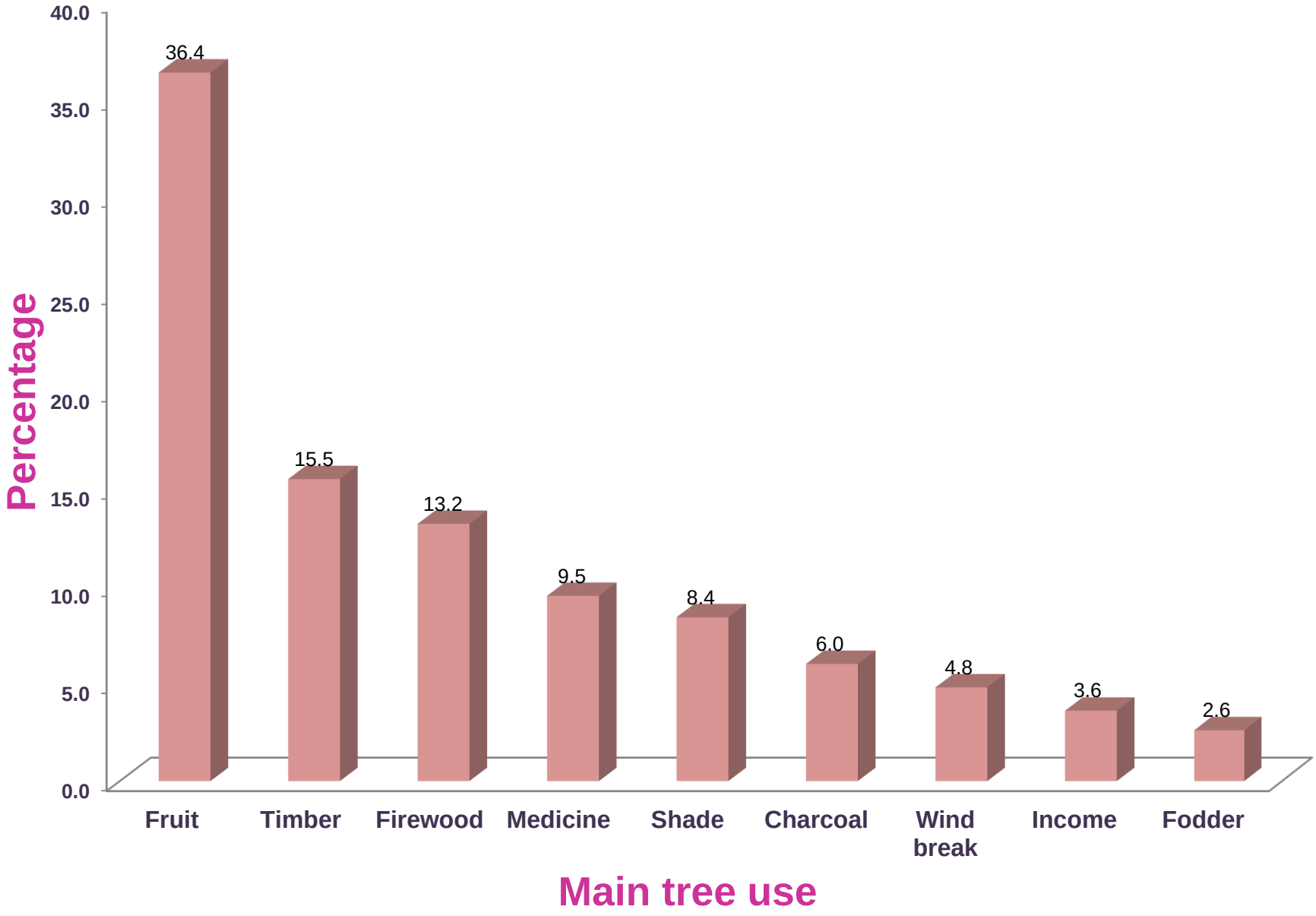
FMNR in context of Uganda

- FMNR is the systematic regeneration of trees from living tree stumps, roots and seedlings
- FMNR provides one means of tackling the issues of climate change – quickly and in a large scale.
- FMNR can be promoted in most parts of Uganda
- FMNR should complement rather than replace other re-vegetation efforts

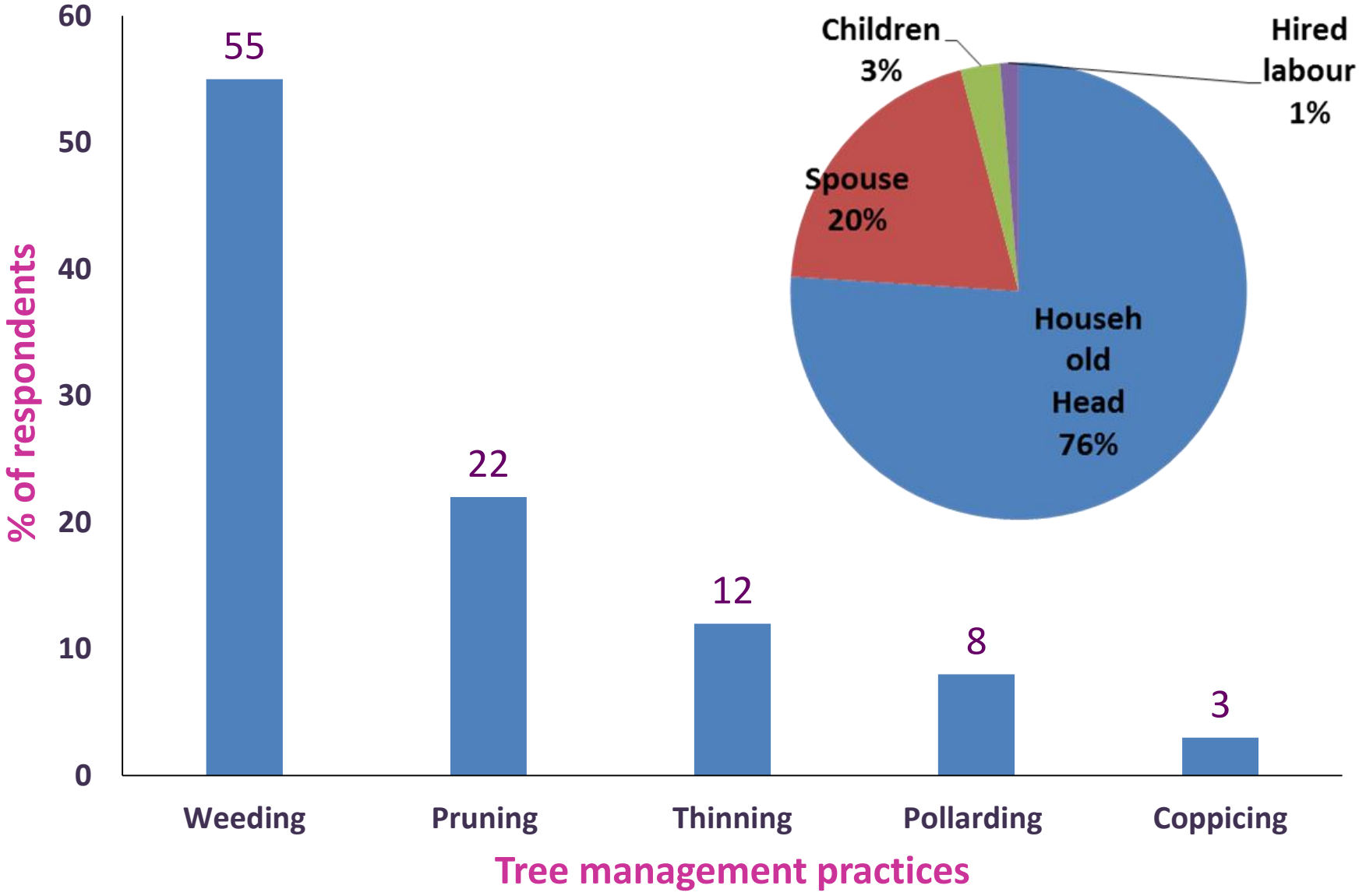
Most common tree species within FMNR sites

1	Tree species
	Combretum molle
2	*Combretum collinum*
3	*Balanites aegyptiaca*
4	*Markhamia lutae*
5	*Albizia zygia*
6	*Annona senegalensis*
7	*Artocarpus heterophylus*
8	*Erythrina abyssinica*
9	*Eucalyptus grandis*
10	*Mangifera indica*

Uses of trees in FMNR sites



How the trees are managed & who does the work?



Benefits of FMNR

- Income from sale of forest or tree products
- Food security as it boosts food productivity through enhanced soil fertility and moisture conservation
- Ecosystem resilience
- Reduction of conflict
- Climate change adaptation and mitigation (including carbon sequestration).
- Restoring degraded land including erosion control
- Enhancing ground water recharge
- Contributing to reforestation.
- Improving local governance structure
- Enhancing positive community-local government engagement.
- Conserving diversity of plant and animal communities

Challenges

1. **Unclear land and tree tenure –** e.g. absentee landlords in both Nakasongola and Kibaale districts
2. **Unregulated harvesting of forest products** especially firewood and charcoal. The system for licensing charcoal trade in local governments through tendering does not have control on off take levels
3. **Poor enforcement of forest related laws and regulations**
4. **Uncontrolled wildfires especially during the dry season**
5. **Uncontrolled livestock movement** especially during the early stages of FMNR.
6. **Poor conversion methods for forest products** especially charcoal production
7. Low market prices for forest products

Success Factors for FMNR in Uganda

1. Integration of FMNR with other short-term economic activities such as livestock, bee keeping and fruit trees
2. Enabling policies, laws and institutions, that address specific local contexts
3. Cohesive communities willing to learn from FMNR champions and from each other.
4. Increased awareness on the link between FMNR, environmental resilience and improved rural livelihoods
5. A shared vision of collective action and landscape-level restoration and natural resource management
6. Clear and coherent knowledge management mechanisms including farmer training

Policy Recommendations

1. DLoGs should formulate and enforce ordinances and by-laws to regulate tree use and management.
2. DLoGs hould streamline FMNR into the existing agriculture and forestry programs and incorporate it into the district development plans.
3. MWE should streamline the licensing procedure for forest products harvesting especially charcoal and timber to ensure sustainability.
4. There is need for a conducive policy environment to secure the land and tree tenure of the farmers practicing FMNR.
5. There is need to strengthen Uganda's FMNR Network to make it more effective. The Network should be represented at both local and national levels.
6. DLoGs should support the establishment and recognition of community based institutions to oversee and coordinate implementation of FMNR activities.

Conclusion

Whereas there are other land restoration options, **Farmer Managed Natural Regeneration (FMNR)** is one of the low-cost but effective options, especially in environments where tree survival can be a challenge.

However, FMNR needs to be promoted alongside complimentary income generating activities such as bee keeping and rearing of small ruminants so as to provide short-term gains as farmers wait for medium and long-term benefits from trees.

Africa Tree Finder

Choose the right tree for the right place

Over 40 governments, companies and organisations are working towards the restoration of degraded and deforested land around the world.

They are part of the Bonn Challenge – a global effort to restore 150 million hectares of degraded and deforested land by 2020 and 350 million by 2030.

Restoring degraded lands is an important way to meet international commitments such as the Sustainable Development Goals and Aichi Biodiversity Targets, and also a way to secure food, water and livelihoods for people everywhere.

How can we make sure this restoration is successful?
By choosing the right tree for the right place.

And the Africa Tree Finder application will let you to do just that.

How can we make sure this restoration is successful?

- By choosing the right tree for the right place.
- And the Africa Tree Finder application will let you to do just that.

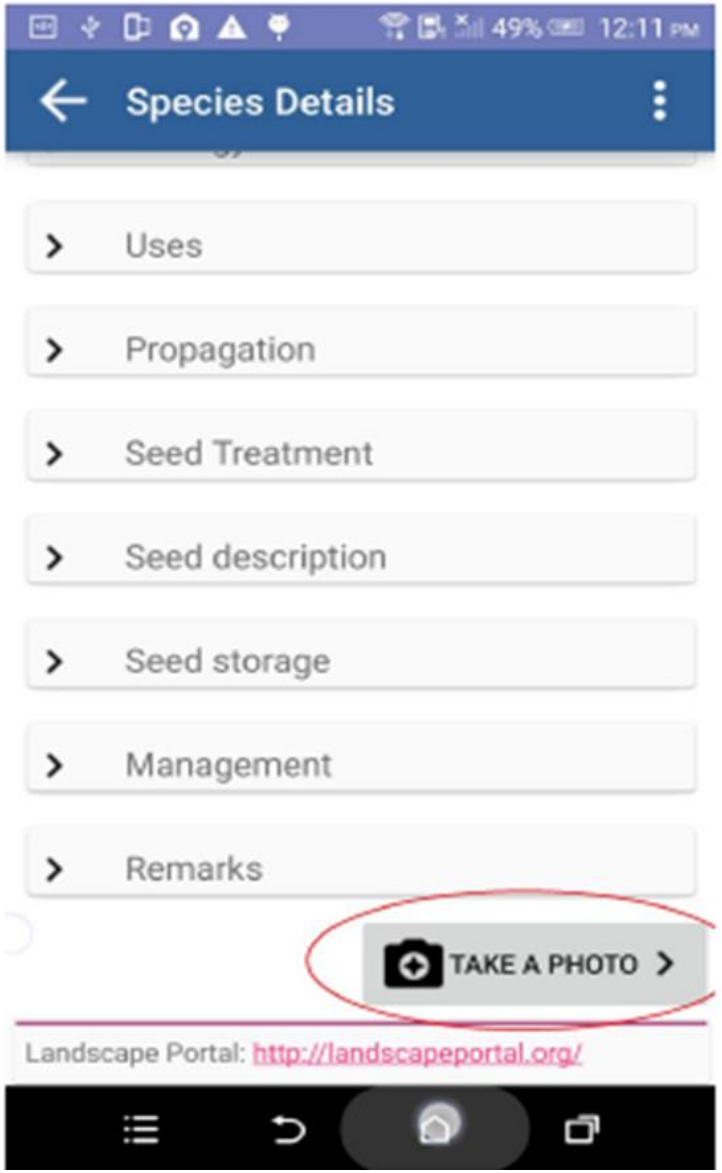
How can it be of help?

- This easy-to-use mobile app shows you data on the distribution of indigenous tree species in different natural vegetation types, combined with information on the products and services that the tree species can provide.

- It arms you – local community members, government agencies, private sector owners, and other land managers – with information needed to select the best tree species for a given restoration effort.

Documenting progress of restoration interventions

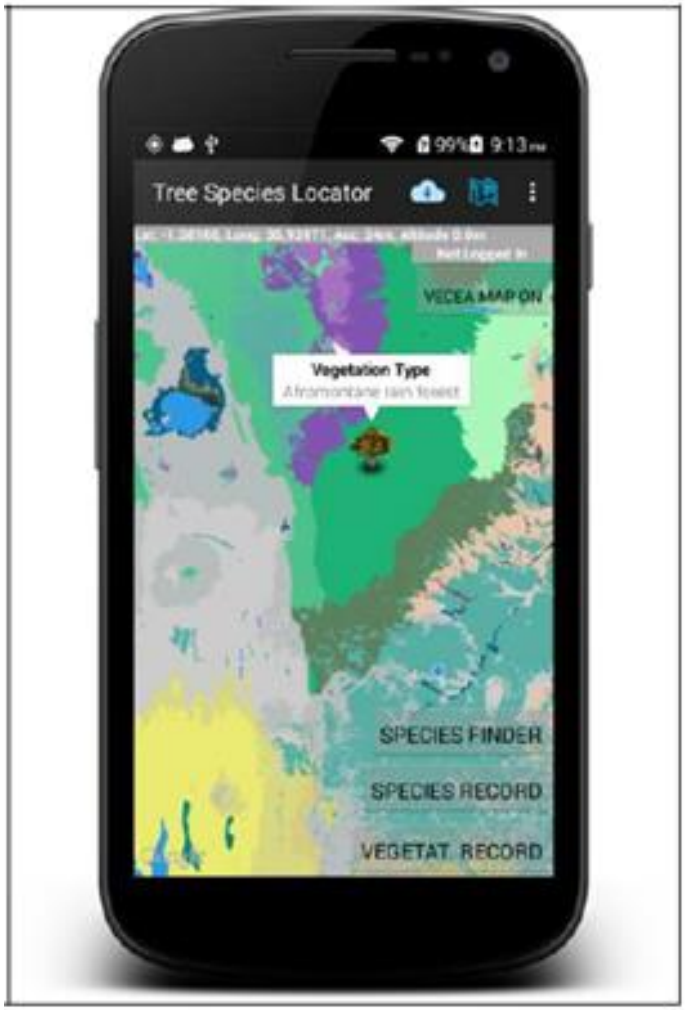
- Can be done by sending geo-tagged images from your phone to the app's companion website.
- As this data bank grows, it will help us verify the accuracy of the base maps used for the app
- Thus help monitor climate-induced vegetation shifts.

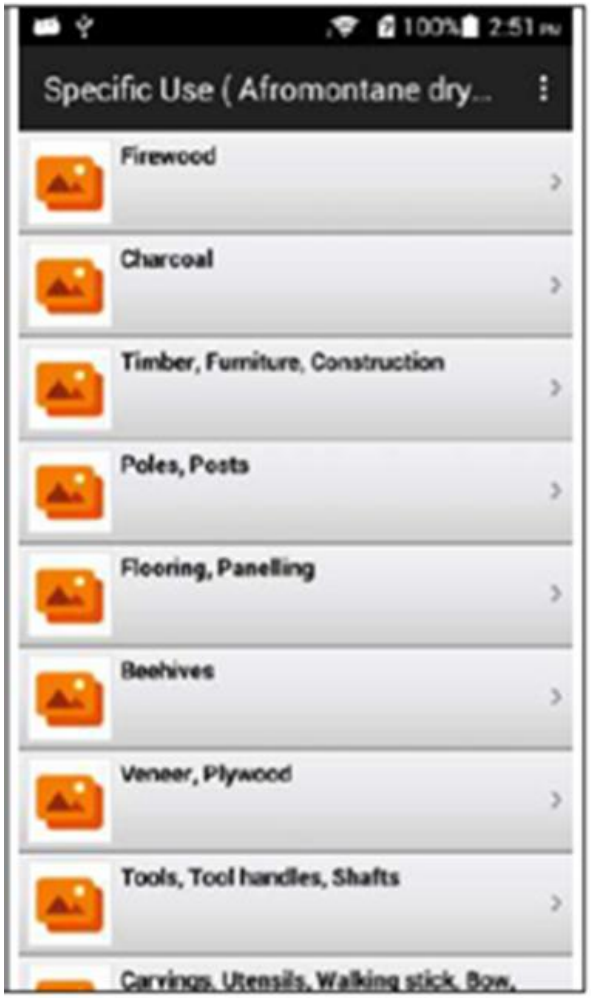


Where to get the app?

Download the app today at the Google Play store:

bit.ly/AfricaTreeFinder





What kind of data can I get?

- Africa Tree Finder can tell you which trees are best suited to meet the demand for:
  - wood-based products,
  - human consumption,
  - animals, and
  - environmental services.
- It can also tell you the local names of species and provides vital information on propagation and seed treatment, storage and management.

Africa Tree Finder

User Guide

World Agroforestry Centre

Step 1: Installation

Go to the Google Play Store and search for “Africa Tree Finder”. After you have found the application press install.

Note: The “Africa Tree Finder” application is currently only available to android devices.

Step 2: Allow Permissions on Device

Ensure that you have allowed the Africa Tree Finder application to use your GPS location, camera and storage.

To do this go to > Settings > Application Manager > Africa Tree Finder > Allow Permission

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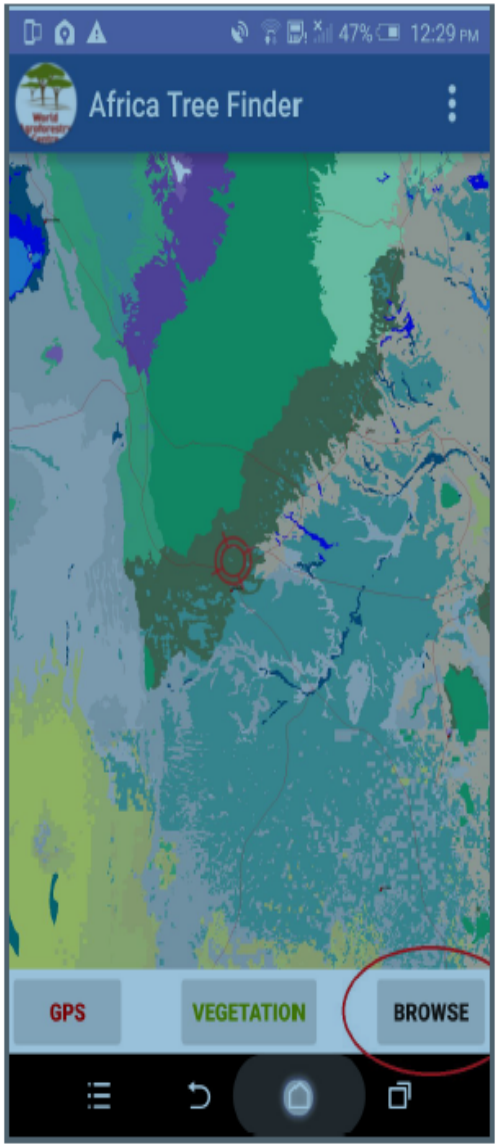
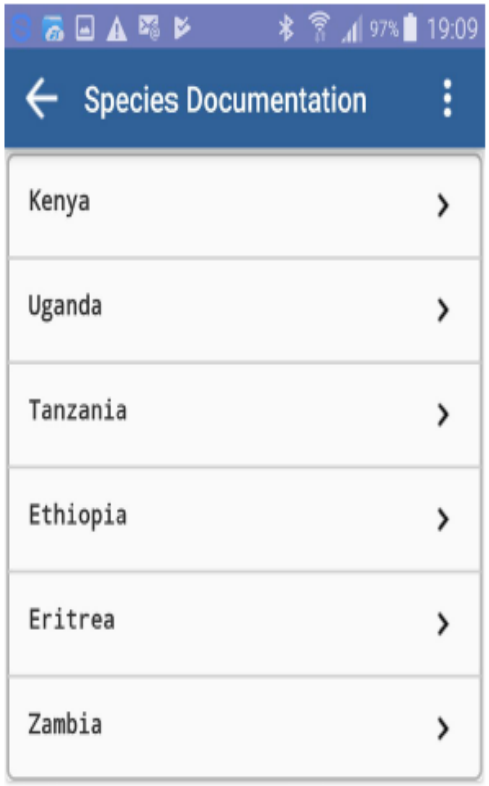
Browsing Option





Thank you

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