Food and Agriculture Organization of the United Nations

UNHCR The UN Refugee Agency

Planning a people-centered landscape approach to forest restoration in a refugee context; A case of Bidibidi Forest Landscape Management Plan (2023-2028)

A joint FAO-UNHCR initiative

Walter Mapanda – *Technical Advisor, FAO-Uganda*

Miriam Natabo – *Environment Officer, UNHCR-Uganda*

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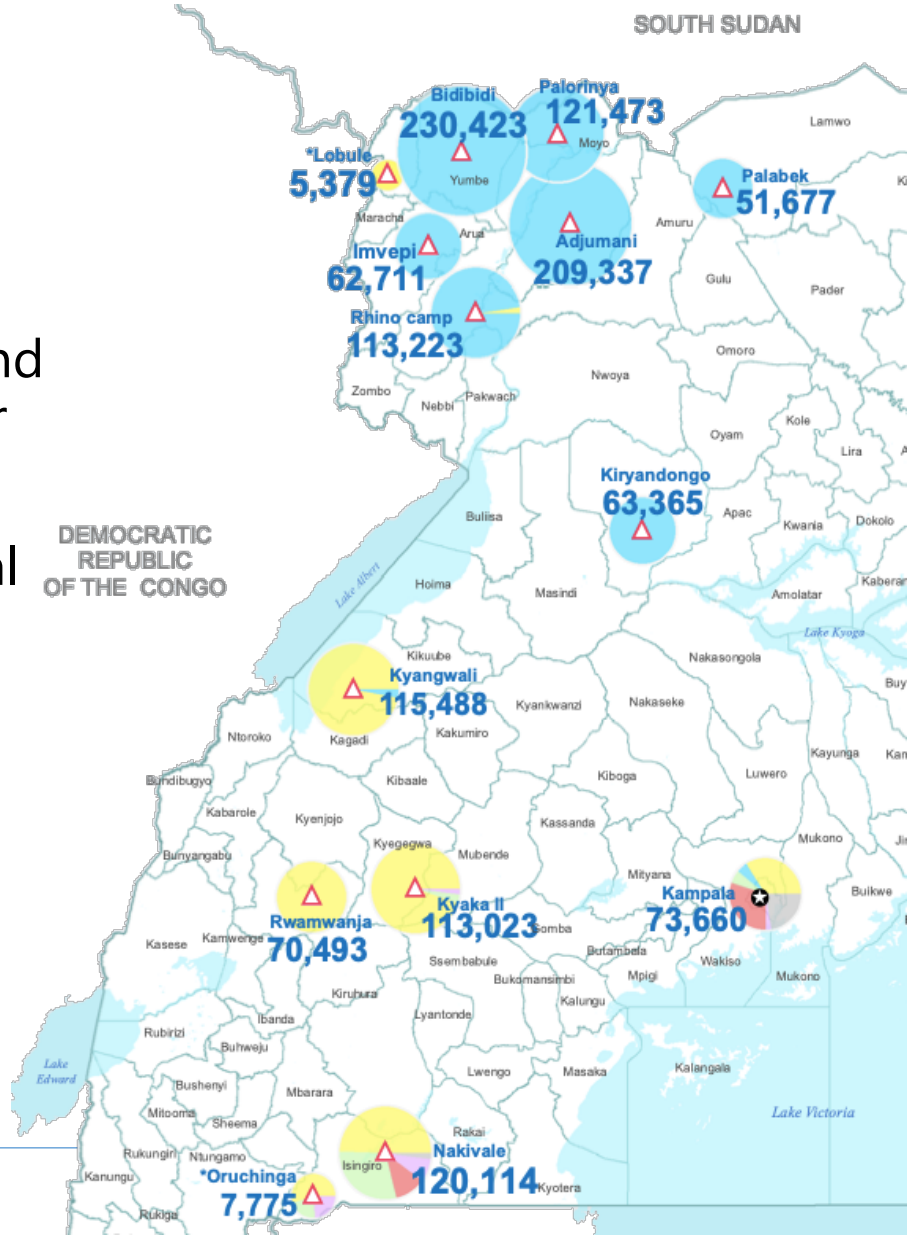
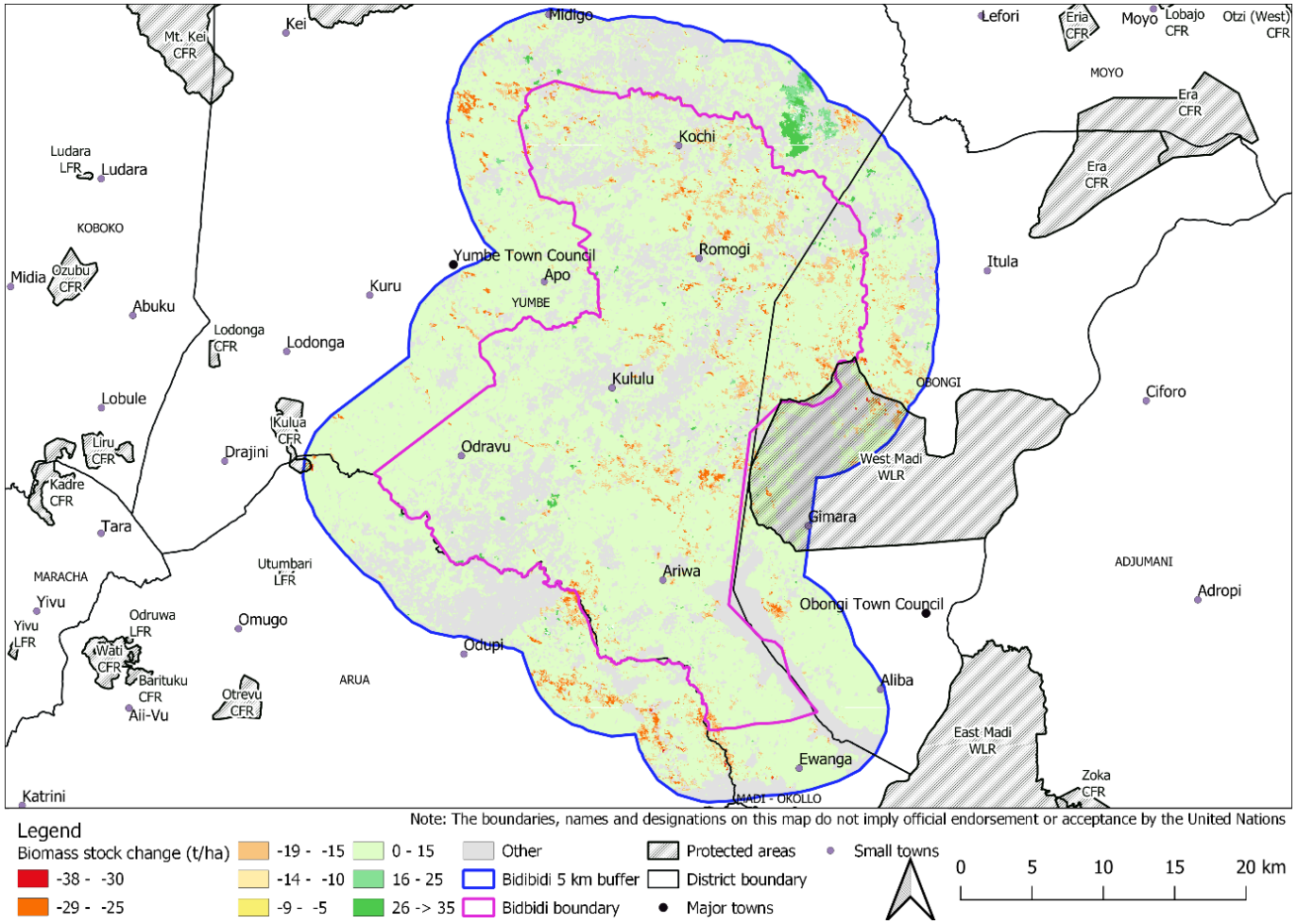
Background

- More than **1,5 million refugees** in Uganda
- **Open-door** and **self-reliance** policy for refugees
- **High dependency on forest resources** by both refugees and hoist communities as a source of energy for cooking, shelter and income-earning opportunities.
- Establishment of settlements and limited attention to natural resource management in this context have **exacerbated existing high rate of forest resource degradation**
- **Innovative and long-term strategies are required for sustainable forest management** and natural resource protection in refugee-hosting areas



Bidibidi refugee settlement- largest home of refugees in Uganda and Africa

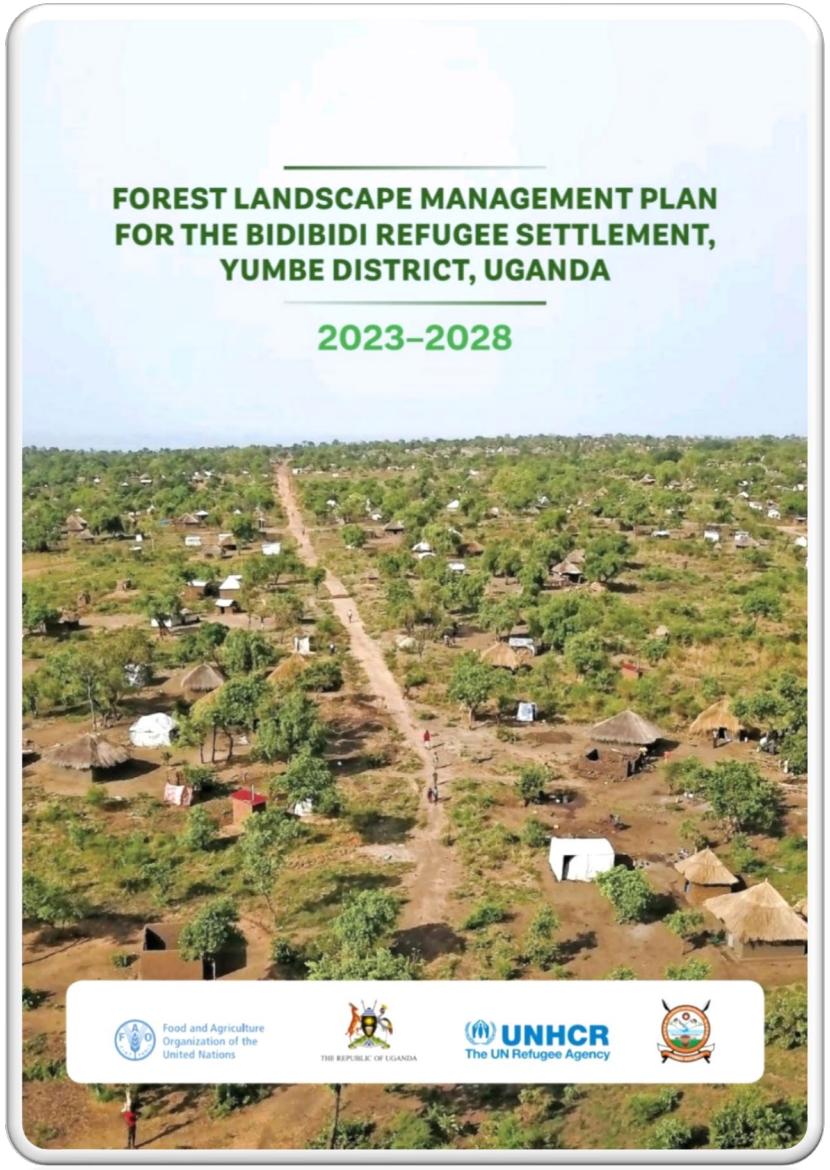


- **Target area:** Bidibidi settlement + 5km buffer
- **Refugee population:** 227,996 refugees (June 2022)
- **Drivers of degradation:** energy demand, construction materials, agricultural expansion and livelihoods
- **Assessments conducted** to:
  - quantify wood fuel supply and demand
  - assess changes in biomass stocks and land cover
  - propose measures to mitigate impacts, enhance forest resources and sustainably supply forest products

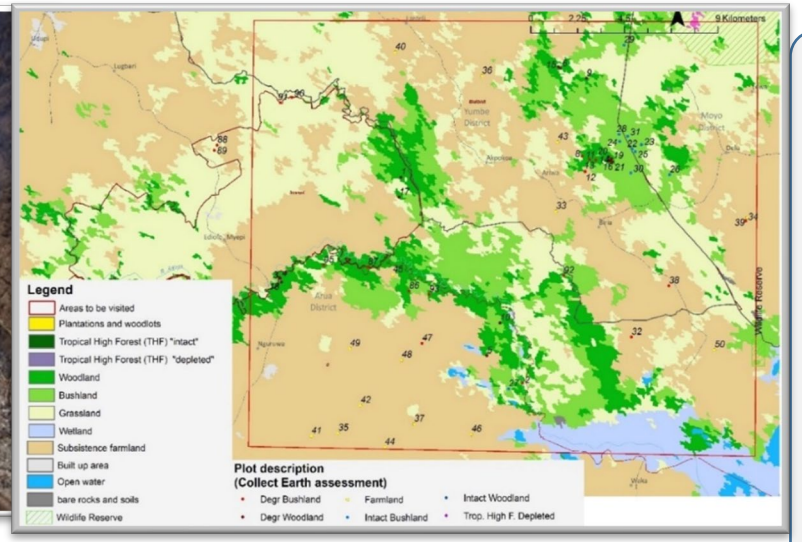
The specific objectives of the plan:

1. Guide implementation of **site-specific forestry interventions** that will lead to:
   - Sustainably supply of fuelwood, timber and non-wood forest products;
   - Restoration of degraded land and conservation of biodiversity;
   - Improve livelihood opportunities through engagement of refugee and host communities in the management of forest resources.

2. Support a **joint resource mobilization strategy** to address environmental degradation and energy needs.



Methodology



1

Socio-economic survey

Assess woodfuel demand and associated challenges.
Household survey, site visits, direct measurements

2

Biophysical survey & geospatial analysis

Assess woodfuel supply, tree cover, land use/land cover changes.
Tree measurements & remote sensing

3

Development of intervention options

Identify appropriate interventions
for sustainable management of forest resources, energy access and livelihoods

Stakeholder consultations

Management Proposals:

(a) Woodlots for energy purposes:

Parameter	Values
Mean annual increment (m^3/ha per year)	10
Rotation age (year)	3
Sum of mean annual increment for rotation (m^3/ha)	30
Area required to balance woodfuel supply & demand (ha)	**2786**
Annual harvested area (ha)	**929**
Annual harvestable biomass for energy woodlots (tonnes)	25 077
Plantable area allocated for woodlots (ha)	4 081

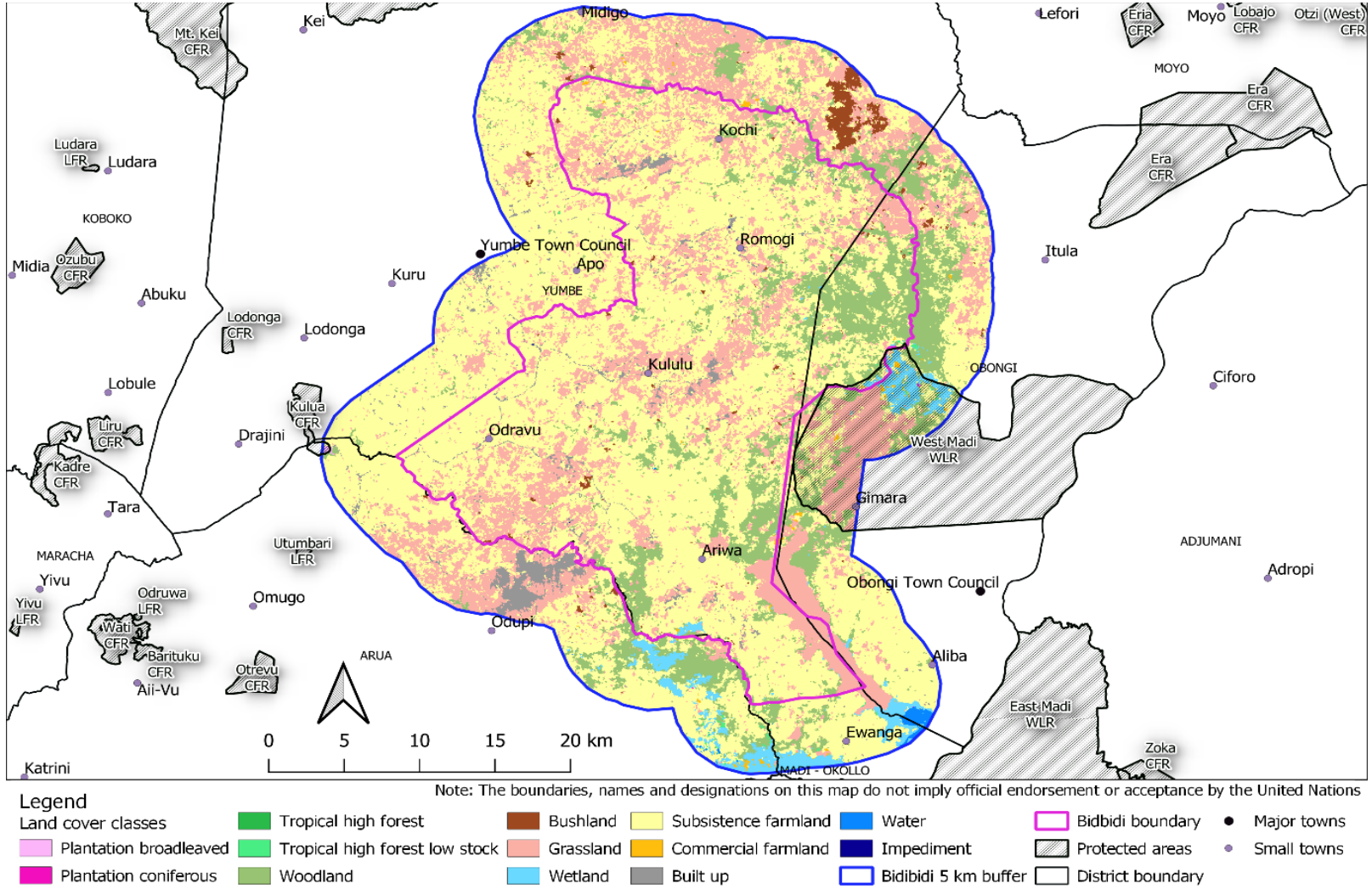
Management Proposals:

(b) **Restoration of degraded land** (6,846 hectares target)

- *Natural regeneration and protection*
- *Assisted Natural regeneration e.g. Farmer-managed natural regeneration (FMNR)*
- *Agroforestry systems*
- *Silvopastoral systems*

(c) Protection of forests and Special Management Zones

	Within the Bidibidi boundary (ha)	5-km buffer (ha)
Intact natural forests	9,767	10,286
Wetland	91	1,352
Riverine	1,876	2,050
Grassland	4,828	8,570



Major Tree Species for Restoration

Indigenous high value tree species	Site conditions
Acacia sieberiana, Ficus natalensis	Poorly drained soils, high water table, riverine
Combretum spp., Piliostigma thonningii	Water-stressed sites, rapid drainage
Combretum spp., Pilostigma thonningii	Shallow soils with underlying rock, effective rooting depth of < 50 cm
Antiaris toxicaria, Afzelia spp., Celtis africana, Khaya senegalensis, Pseudocedrela kotschyi, Albizia coriaria, Milicia excelsa	Deep, fertile, well-drained soils
Calliandra calathyrsus, Sesbania spp., Tephrosia spp., Cajanus cajan, Gliricidia sepium, Moringa oleifera	Tree species for agroforestry systems

Funding Requirement (2023-2028)

Intervention	Unit cost (USD)	Planned area (ha)	Year 1	Year 2	Year 3	Year 4	Year 5	Total cost (USD)
Woodlots for energy	1 407	2 786	2 861 222	481 978	576 702			3 919 902
Restoration of degraded forests [a]	330	88	10 397	4 858	3 758	3 912	6 098	29 022
Agroforestry [b]	565	6 771	74 227	21 413				95 640
Conservation of natural forests	344	20 054	1 985 346	1 183 186	1 143 078	1 143 078	1 443 888	6 898 576
Total (USD)			**4 931 192**	**1 691 435**	**1 723 538**	**1 146 990**	**1 449 986**	**10 943 141**

What’s Next

- UNHCR-FAO collaboration to address environmental impact and energy needs in the refugee hosting areas through cost-effective interventions.
- Joint resource mobilization strategy for implementation of the Bidibidi Forest Landscape Management Plan.
- Review of the WESRP under the leadership of MWE.
- In 2023 FAO piloting restoration of 100 ha of degraded land in Bidibidi
- UNHCR’s continued prioritisation of afforestation/reforestation activities in the refugee hosting areas through REP Fund and ReForest Project i.e. restoration of degraded CFRs and protection, woodlot establishment and maintenance
- Promotion of access to clean cooking among refugee households i.e. alternative fuels and technologies.

THANK YOU!