

The Miombo Woodlands in Malawi – Status, Management and Development

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Presentation Outline

- Status of the Miombo in Malawi;
- Deforestation rates;
- Land use/cover changes;
- Drivers of deforestation;
- National Forestry Development actions/mitigations;
- Forest resources mapping project;
- Capacity building needs.

Status of the Miombo in Malawi

- Malawi lies in the Miombo eco-region;
- With an area of 118,332 km², 45.2% of the land was classified as forest in 1973;
- By 2010, 20.4% of forest remained;
- [Miombo accounts](#) for 92.4% of the total forested land; 2.6% evergreen and 4.5% to plantations.
- Much of the miombo confined in protected areas – national parks, game reserves and forest reserves.

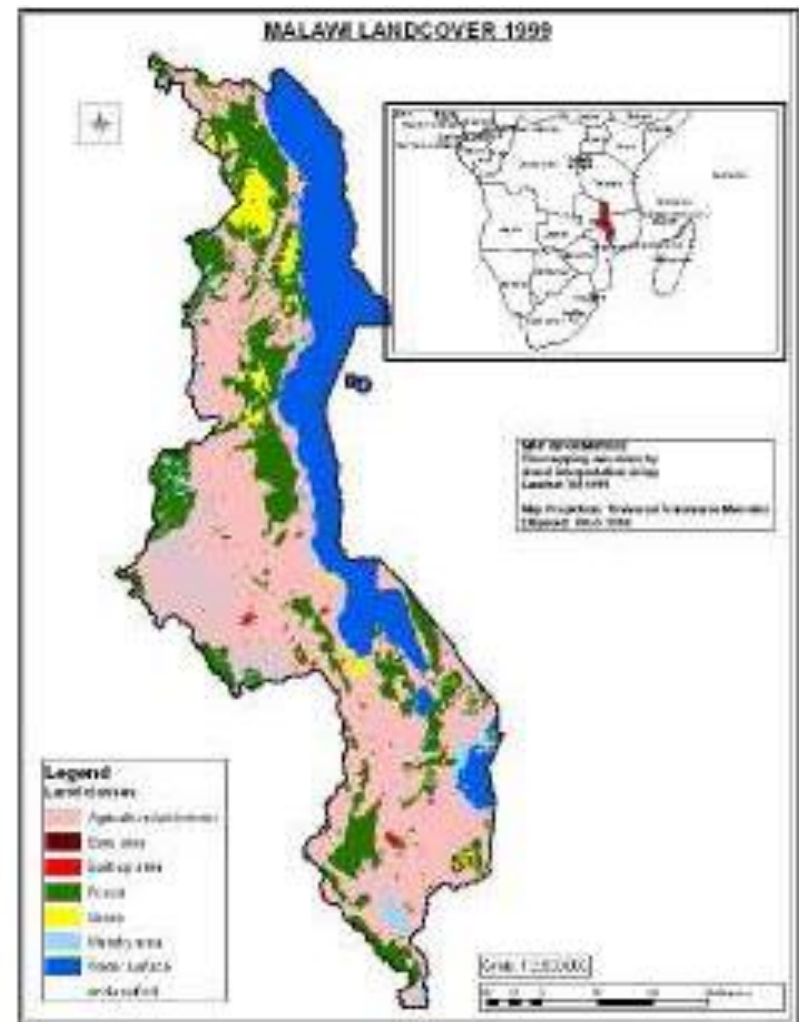
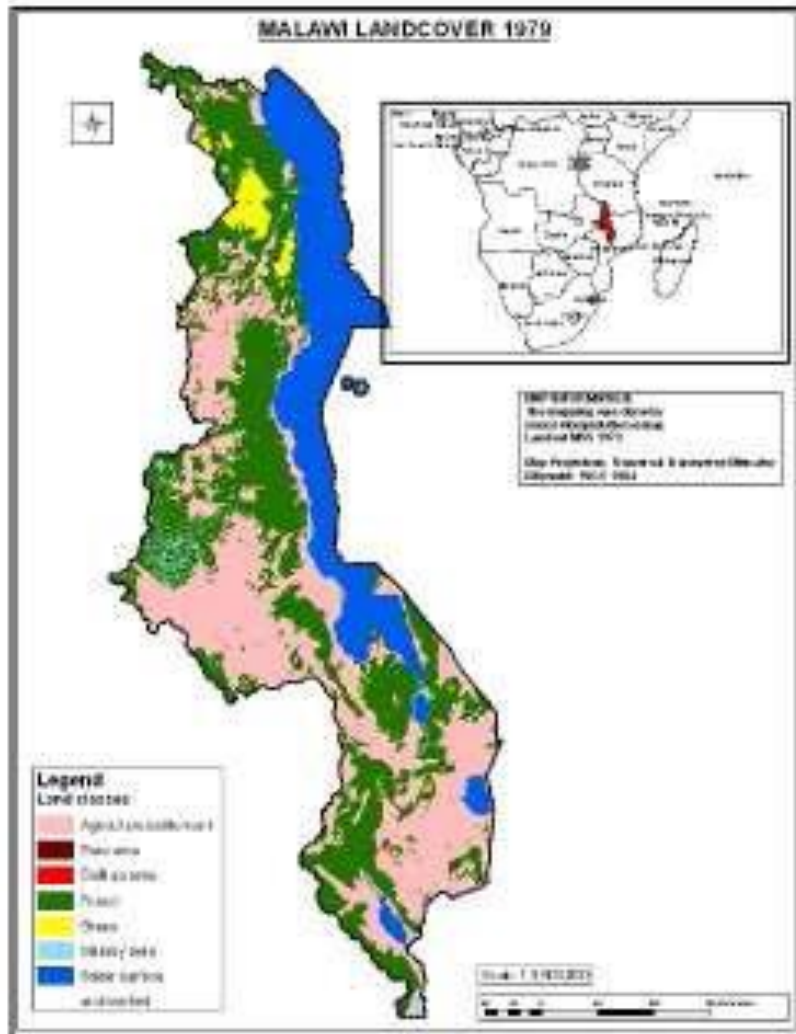


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Deforestation Rates

- Past three decades, deforestation ranged between 1% to 3.5%, averaging 2.3% per annum;
- Forest cover declined by 5% on public land mainly in protected areas at the rate of 0.03% per annum between 1972 – 1990;
- Approx 61% forest cover on customary and private land lost at the rate of 3.4% per annum;
- Much higher deforestation currently occurs in indigenous forests, woodlands and customary land.

Malawi's land cover, 1972 & 1999



Land Use/Cover Changes.....1

Land use category	Year						% loss/gain 1999 – 2010
	1990		2000		2010 (%)		
	Area (km ²)	%	Area (km ²)	%	Area (km ²)	%	
Forest Land	26,429	22.3	25,951	21.9	24,177	20.4	-1.9
Cropland	57,739	48.8	58,528.8	49.5	59,415.4	50.2	+1.4
Wetland	30,228.7	25.6	30,097.1	25.4	30,902.1	26.1	+0.5
Grassland,	3,516.2	2.8	3,358.6	2.8	3,180.4	2.7	-0.1
Settlement	224.3	0.2	240.1	0.2	513.2	0.4	+0.2
Other	160.8	0.1	144.4	0.1	132.3	0.1	0

Land Use/Cover Changes.....2

- Land use/cover change between 1990 – 2000 was:
 - Forest land to cropland;
 - Cropland to forest land;
 - Wetland to cropland
- Land use/cover change between 2000 – 2010 was:
 - Forest land to cropland;
 - Wetland to cropland;
- High rates of forest land loss to cropland observed between 2000 and 2010, esp. North and South regions.

Drivers of deforestation

- High Human population, thereby increasing demand:
 - land for settlement & farming;
 - biomass energy and non-energy demands.
- Agriculture expansion;
- Uncontrolled forest *and grassland* fires;
- Inadequate government budgetary support;
- Political influence;
- Ruralization;
- Brick making.

Biomass energy and non-energy demands

Sector	Total National Energy Demand in Malawi by Fuel Type (TJ/Yr)					
	Biomass	Petroleum	Electricity	Coal	Total (TJ/Yr)	% Total
Household	127,574	672	1,798	5	130,049	83.2
Industry	10,004	3,130	2,010	3,481	18,625	11.9
Transport	270	5,640	35	15	5,960	3.8
Service	452	558	477	174	1,661	1.1
Total	138,300	10,000	4,320	3,675	156,295	
% Total	89	6.3	2.6	2.2	Source: GoM	

Fuelwood –for brick baking



Charcoal Burning – City bound



Forest Fires



National Forestry Development Initiatives & Mitigations.....1

- Forest and Tree Management in Malawi
 - Wood Energy Plantations (World Bank);
 - Blantyre City Fuel wood Plantations (NORAD);
 - Improved Forest Management for Sustainable Livelihoods Programme (European Union);
 - Forestry Replanting and Tree Nursery Project (GoM)
 - Tree Planting and Management for Carbon Sequestration and Other Ecosystems Services (GoM)

National Forestry Development Initiatives & Mitigations.....2

- Forest and Tree Management in Malawi
 - The Income Generating Public Works Programme (GoM/European Commission);
 - Sustainable Management of Indigenous Forests Project (WESM, NGO);
 - Mulanje Renewable Energy Agency (MMCT, NGO)
 - Mountain Biodiversity Increases Livelihoods Project (MMCT, NGO);

National Forestry Development Initiatives & Mitigations.....3

- Forest and Tree Management in Malawi
 - Bwanje Rural Environmental and Development Organization (BERDO, CBO);
 - Sendwe Village Forest Area, T.A Khongoni, Lilongwe (CBO);
 - Chingoli Village Forest Area (Bisa Hill), T.A. Nkula, Machinga (Green-Line Movement, (CBO)

National Forestry Development Initiatives & Mitigations.....4

- Monitoring, Research & Information
Dissemination
 - Forestry Research Institute of Malawi (Permanent Sampling Plots in many forests);
 - The “Forest Resource Mapping” project under the “Forest Preservation Programme” (GoJ/GoM)

The Forest resources mapping project

- Aims to establish measuring & monitoring systems for understanding temporal & long term changes of forest resources within the REDD⁺ mechanism through;
 - Capacitating FD;
 - Production of land use, land use change and forestry (LULUCF) maps;
 - Production of forest maps for monitoring;
 - Preparation of cartographic maps for 17 forest areas among other objectives.

Capacity building needs

- More capacity building required for field staff:
 - To carry out forest inventories using standardized data capturing protocols for the miombo eco-region;
 - To interpret satellite imagery and carry out GIS related forestry assignments;
 - To be able to use various satellite imagery & monitoring tools for forestry management;
 - To train the media on packaging and dissemination of forest and forestry related information.

Muito Obrigado