



Miombo in Zimbabwe

Current Status

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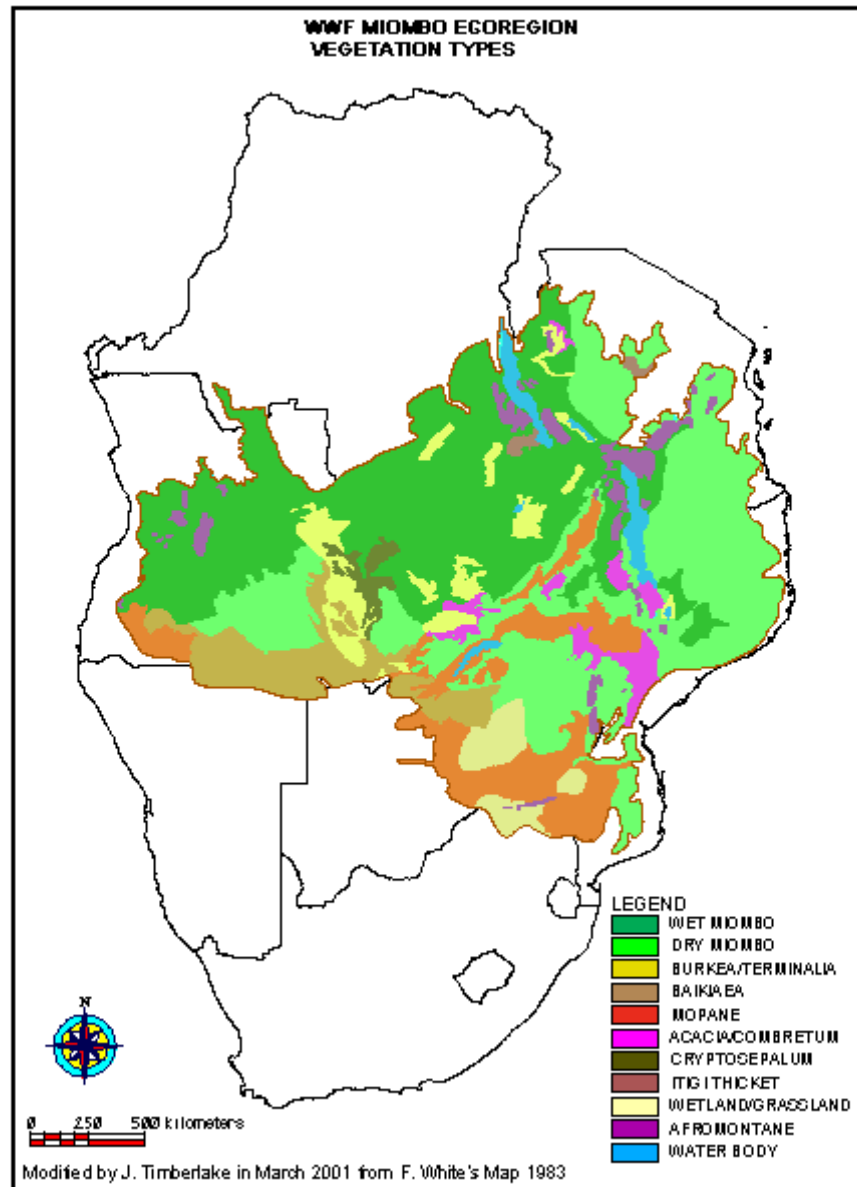
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- MIOMBO status
- Deforestation rates & drivers
- National Mitigation measures
- International & Network Initiatives
- Science and Earth Observation needs
- Capacity Development requirements

**WWF MIOMBO EGOREGION
VEGETATION TYPES**



Miombo cover in Zimbabwe

- Currently there is no quantitative, up-to-date information on the spatial patterns of national woodland cover
 - no miombo figures found
 - urgently needed
- Little research on woodland use and management since before 2000
 - lacking figures for supply and demand of wood
- Major changes in clearing for agriculture in last decade in miombo region.



Woodland cover in Zimbabwe (2)

- In 1990 +/- 20,669,000 ha
= 52.9% total land area.
- In 2005 +/-17,540,000 ha
= 43.3% total land area

Deforestation rates

Rapid, accelerating deforestation

- 70,000 and 100,000 ha annually (Rukuni & Eicher, 1993)
- 312,900 ha annually between 1990 & 2000 – 1.41% (Masocha et al, 2011)
- 330,000 ha annually now (CarbonGreen, 2013)
- since 1986 some miombo areas reduced by 15-23% down to 3 - 4% cover
 - estimated to be totally deforested by 2014 -2016.

Deforestation

Deforestation in Zimbabwe is due largely to:

- clearing for agriculture
 - major factor, like to remain so for next two decades
- settlement expansion
- harvesting of non-timber forest products (NTFPs)
- illegal mining operations
- infrastructural development such as dam and road construction
- fire.



Deforestation (2)

- Land use in Zimbabwe is strongly biased towards agricultural production
 - tension exists between the expansion of arable land and the preservation of wooded areas
 - even protected State Forests in Zimbabwe are now inhabited and cultivated
 - Recent tobacco boom amongst small-holders catastrophic
 - ecosystem services from woodlands not valued enough.



Tobacco production

- since 2010 re-focus on agriculture has meant rapid woodland clearing and harvesting to cure tobacco
- no forward thinking to anticipate rapid future need for fuelwood
 - no tree planting
 - commercial tobacco farmers in past used coal or grew Eucalyptus
 - no electricity so use of coal needs additional use of wood to keep it burning
- fuel from better wooded areas transported 15 – 20 km in some areas





Need for household fuel

- Lack of electricity in rural areas, and in now peri-urban and urban areas, means people resort to using fuelwood for heating and cooking
 - previously wooded areas around towns now deforested
- Many of the reasons for deforestation can be traced back to poverty
 - could be used as a driver for involvement in tree planting programmes – food for work
 - but lack of government and donor funding at present.



National Mitigation Initiatives

- Good policies and laws in place but little implementation
- Little government or donor funding
 - normal govt. activities left to NGOs and private sector
- Motivated chiefs will conserve their areas



National Mitigation Initiatives (2)

- Private tree planting initiatives promoted by deforestation around urban areas – FOTE
- Focus on income generating projects to promote woodland conservation as a second objective
- REDD+ initiatives: none yet but several in the pipeline



National Mitigation Initiatives (3)

- Govt. TWEP (Tobacco Wood Energy Programme) requires tobacco growers to plant 0.1ha of trees for every 1ha of tobacco grown
 - Pest problems with new fast-growing *Eucalyptus* hybrids being developed; other fast-growing species being promoted
 - BUT still a 6-7 year gap between planting and harvesting
 - farmers need technical advice to improve the 15% survival rate of *Eucalyptus* seed planted.



International support & network initiatives

- In past good interaction at all levels: donors, govt., universities, NGOs, private companies, rural communities.
- Now:
 - some national fora but little activity on ground
 - little donor involvement – FAO (mostly policy; new invasive aliens project)



International support & network initiatives (2)

- Forestry Commission and EMA involved at some levels but mostly NGOs and private involvement:
 - Environment Africa
 - SAFIRE (Southern Alliance for Indigenous Resources)
 - CAMPFIRE Association
 - ZERO (Zimbabwe Environmental Research Organisation)
 - Friends of the Environment (FOTE)
 - CarbonGreen



Science & Earth Observation needs

- Inventories of standing stocks nationally
 - especially in tobacco growing areas
 - total deforestation in some areas estimated 2014 – 2016
- Access to new EO methods
- Permanent sample plots
- Improved understanding of value of natural woodlands to poor rural communities
 - starting at school
- Climate change research
 - REDD+



Science & Earth Observation needs (2)

- Urgent research into fast-growing alternatives to miombo woodland or Eucalypts as fuel to cure tobacco
 - Giant Timber Bamboo (*Bambusa oldhamii*)
- Improved coppice management techniques
- Urgent research into sustainable tobacco production
 - Reduced fuel consumption for tobacco curing
 - Alternative fuels - carbon dust briquettes; bamboo etc.
 - better barn management to increase heating efficiency



Capacity development needs: training, institutional

Training in:

- growth and establishment of tree seedlings amongst farmers, community and schoolchildren
- sustainable tobacco production with reduced fuel requirements
- coppice management in miombo

Institutional

- greater implementation of forest policies and laws.



Capacity development needs: policy

- Agriculture urgently needs to be seen as an integral part of environmental management to avert the impending ecological disaster in tobacco growing areas in the country.
- Ecosystem services from woodlands need to be valued more highly in order to maintain and improve rural livelihoods.



THANK YOU

