

USE OF RESULTS OF FIS & FFM TRAINING

PRESENTATION AT A JICA-SADC ON FOREST CONSERVATION AND
SUSTAINABLE MANAGEMENT MEETING

Held at Travelodge, Botswana

Patricia E. Masupayi

Ruttia Katiyi

Malawi

27.02.2020

PRESENTATION OUTLINE

- Forest resources in Malawi{ present status}
- Fire management activities {present status}
- Future plans
- Challenges

Forest Resources in Malawi

- Forest Resources are classified into
- Natural Woodland, Forestry Plantations and Woodlots
- **Natural woodlands comprises**
- Forest Reserves (8,076 km²)
- national parks and game reserves (9,680 km²)
- customary forests (8,843 km²)
- Forestry Plantations (980 km²)
- Forest area has declined over the past decades due to deforestation and degradation

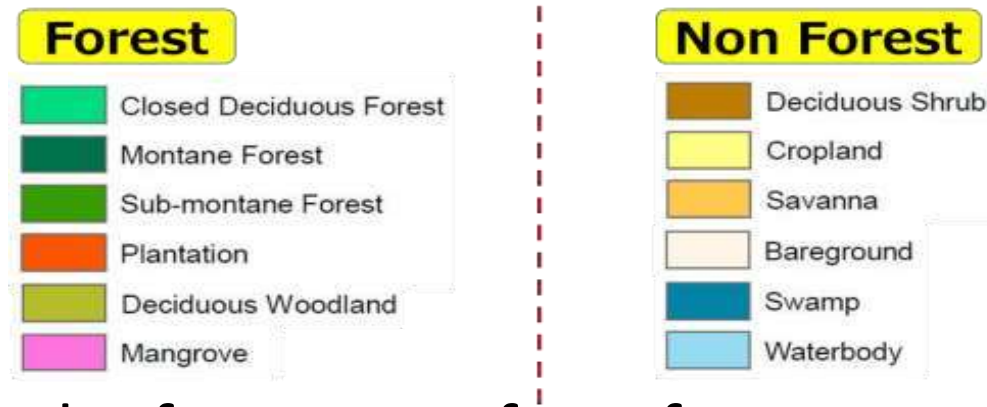
Forest resources cont.....

Deforestation rate according to 2018 forest inventory

- 0.63% (+/- 0.10), from 2006 – 2016, in more intact/more densely forested areas, protected areas, and forest reserves

Lesson learnt on RFS & NFIS training

How to develop FDM 2015, to be used as base map for monitoring forest change in the years after 2015.



Changes in the forest area from forest to non forest (loss) and non forest to forest(gain) in a certain yr excl. plantations- changed by patterns

Outputs of the changed area are in raster format to area in hactares & Volume

Produce Forest outlook map- aggregated changes between 5yrs (2015-2020)

Map

Satellite



SADC Regional Forest Information System

A time-series based methodology to detect forest changes for yearly or every five years (outlook) at country level, sub-country level or for each Eco-region, based on the basemap of SADC Forest Distribution Map 2015.

Demonstration version of JAFTA.

1) Select type of data:

2) Select Area of Interest:

Select country:

Select sub-country:

3) Select data for "Before":

Satellite:

From date:

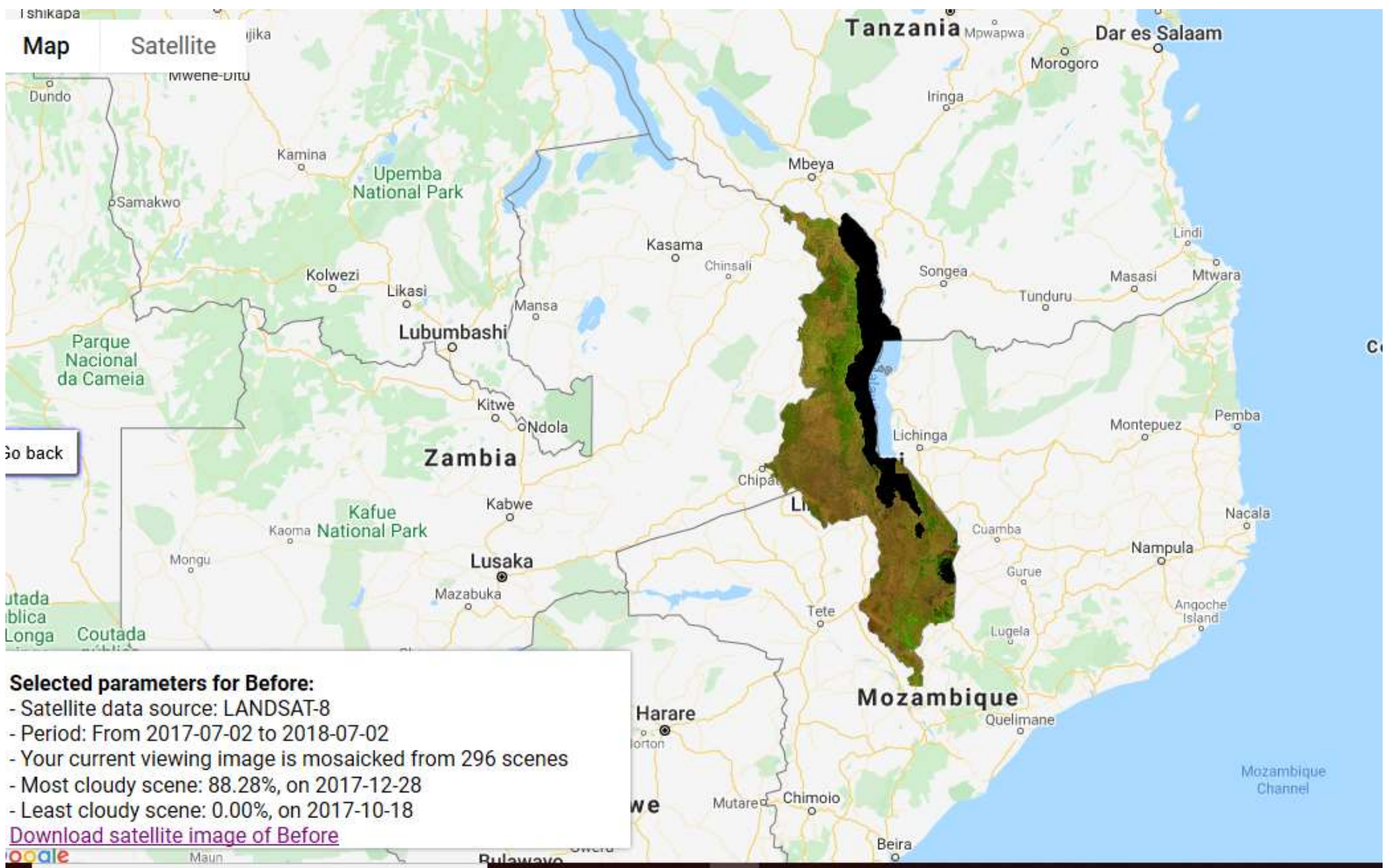
To date:

4) Select data for "After":

Satellite:

From date:

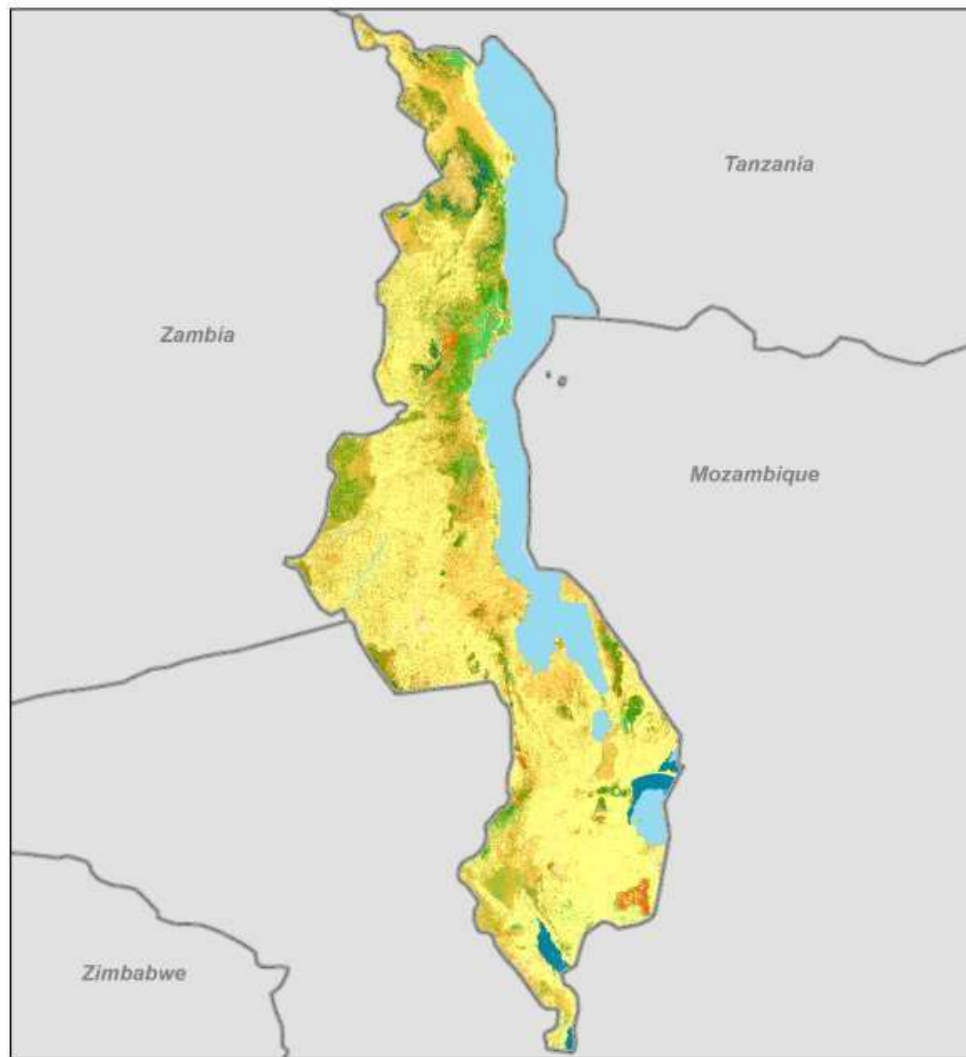
Toggle UI














Selected parameters for Before:

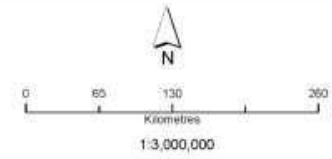
- Satellite data source: LANDSAT-8
- Period: From 2017-07-02 to 2018-07-02
- Your current viewing image is mosaicked from 296 scenes
- Most cloudy scene: 88.28%, on 2017-12-28
- Least cloudy scene: 0.00%, on 2017-10-18

[Download satellite image of Before](#)



Legend

 Closed Deciduous Forest	 Deciduous Woodland	 Bareground
 Montane Forest	 Deciduous Shrub	 Mangrove
 Sub-montane Forest	 Cropland	 Swamp
 Plantation	 Savanna	 Waterbody
		 Pan



Future Plans

- Customize FDM 2015 for Malawi to improve the Map and upload the map using Google earth engine and ground truthing
- Develop forest outlook map for 2020
- Calculate forest yearly Gain and loss changes from 2015 going forward for each Forest reserves in Malawi
- Calculate forest volume for each reserve

SADC_FIS_Advanced_Training - E x +

← → ↻ <https://code.earthengine.google.com> ☆ VN ⋮

Google Earth Engine

Search places and datasets...

SADC_FIS_Advanced_Training Get Link Save Run Reset ⋮ ⚙️

```
183
184 // We will have a temporary visual check to see if full image covers the AOI with belo
185 // If a large area of cloud remaining, please extend and/or change the periods
186
187 Map.addLayer(s2_bf, viS, s2bf_output); // Use manual output name if you like, example
188 Map.addLayer(s2_at, viS, s2at_output); // Use manual output name if you like, example
189 Map.addLayer(l8_bf, viL, l8bf_output, false); // Use manual output name if you like,
190 Map.addLayer(l8_at, viL, l8at_output, false); // Use manual output name if you like,
191
192
193
194
195
196
```

Map controls: Hand, Pegman, Profile, Layers, **Bản đồ**, Vệ tinh

PRESENT STATUS

Fire occurrences are experienced every year especially in plantations



CHALLENGES OF FIRE MANAGEMENT

- Personnel {numbers, skills}
- Lack of Equipment
- Inadequate Mobility e.g vehicles, motorcycles etc
- No MoUs for transboundary fire management

FUTURE PLANS

- ✓ Training field staff
- ✓ Mobilisation of resources such as fire fighting equipment
- ✓ Collaboration with other stakeholders

Thank you