



**The Republic of Uganda  
MINISTRY OF WATER AND ENVIRONMENT**

**Presentation for Uganda's Case**



**Forest Management and Climate Change in  
Eastern Africa**

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# *The current and expected impacts of climate change on forests and forest dependent people in your country*

## **Current Impacts Of Climate Change In Uganda**

### **❖ Increased incidences of floods and Landslides**



Slides on Mt. Elgon due to heavy rains and depletion of forest cover upstream-Feb 2014

Floods on R. Nyamwamba – Kasese district Aug -2013. See boulders from Mt. Rwenzori

## ❖ Increasingly Extreme high temperatures

- Drought/prolonged dry spell
- Storms (Heavy rains, Hail storms, Thunder storms & lightning, Wind storms and Dust storms)
- Erratic (un predictable) rains
- Change in season (onset and secession of rain, Length of growing season)
- Vectors, pests and diseases incidences (resurgence, epidemics, range shift)



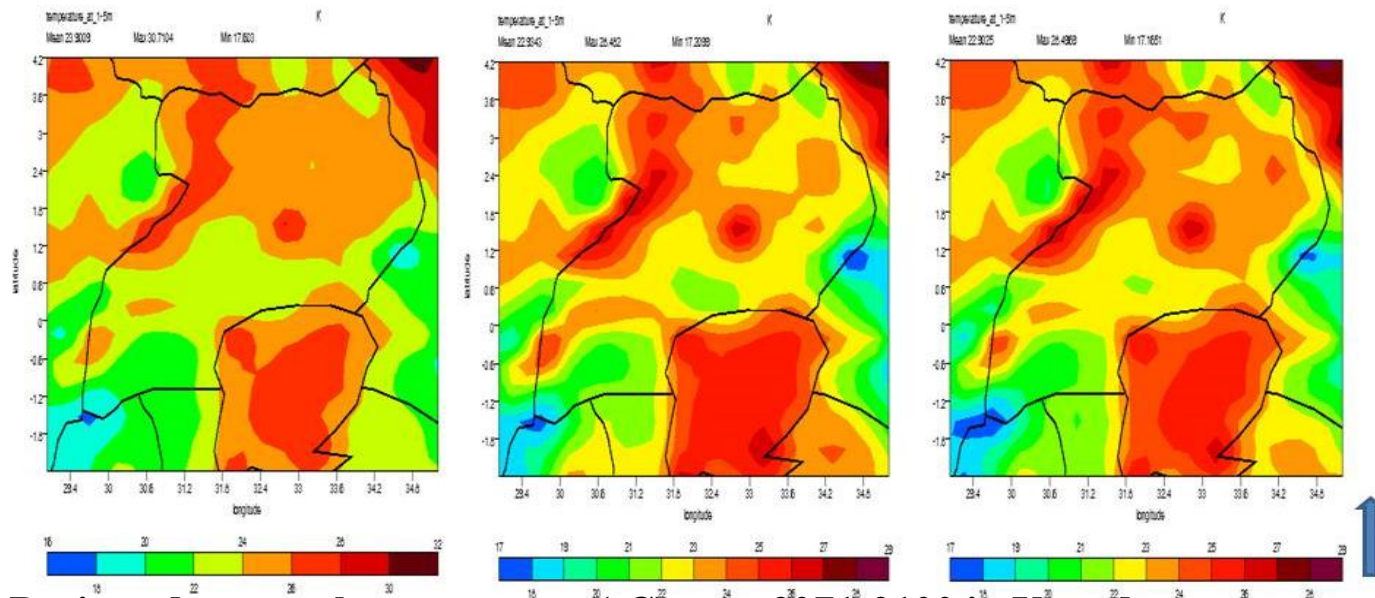
### Heavy losses after Lira forest fire

Firefighters manage to put out a fire in one of the largest tree plantations in Lira, but with a trail of destruction.

# The current and expected impacts of climate change on forests and forest dependent people in your country continued

## Expected Impacts Of Climate Change In Uganda

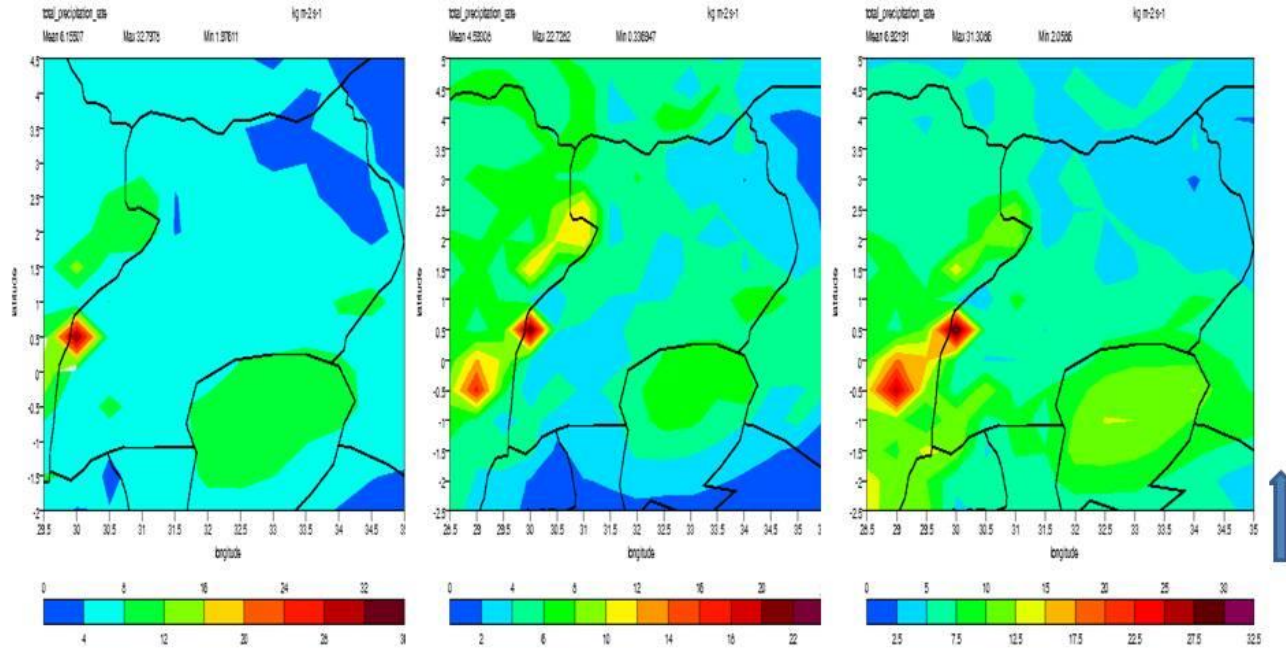
- Continued emission of greenhouse gases will cause further warming and long-lasting changes in all components of the climate system, thus increasing the likelihood of severe and irreversible impacts for people and ecosystems (More severe occurrences of floods, droughts, pests and diseases).



**Projected seasonal temperature (°C) over 2071-2100 in Uganda**

Nandozi et al. 2013 (Using PRECIS)

Majaliwa et al. (in press) (Projected changes in climate parameters for the different climatologically homogenous zones of Uganda)



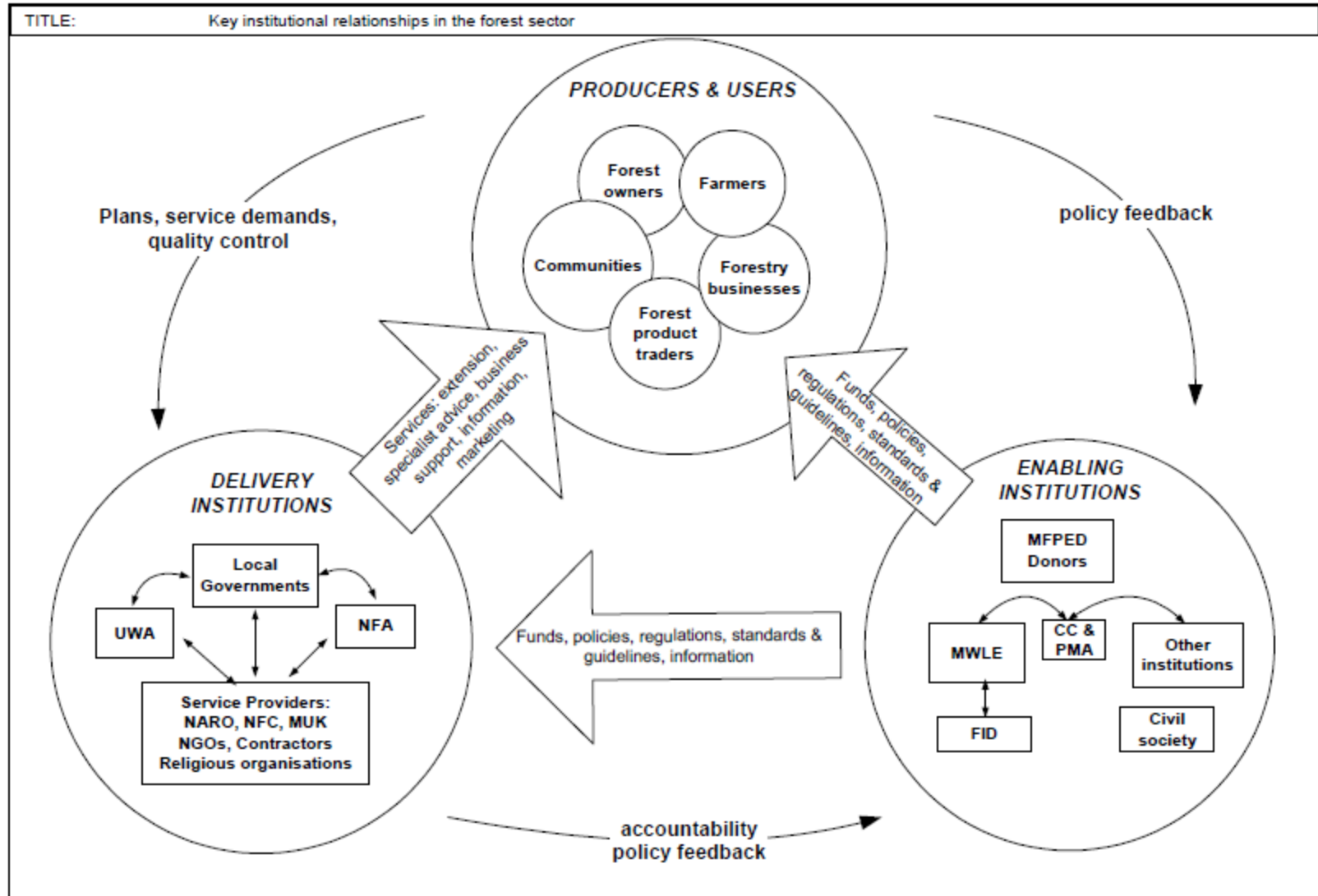
## Projected rainfall (mm/day) (2071-2100) over Uganda

Nandozi et al. 2013 (Using PRECIS)

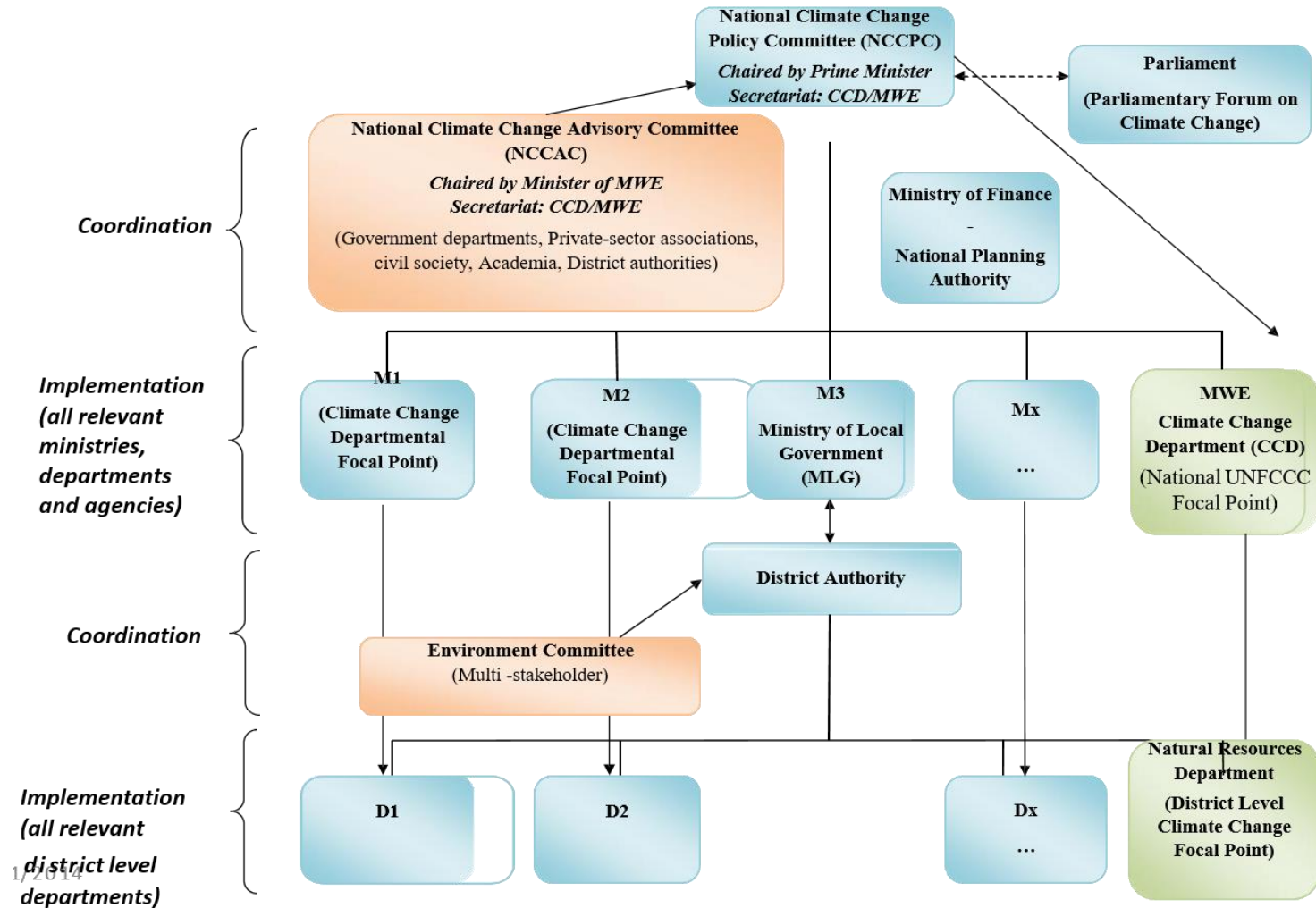
Majaliwa et al. (in press) (Projected changes in climate parameters for the different climatologically homogenous zones of Uganda)

- Poverty and persistent famine
- Increment in ecosystems damage

# Institutional frameworks governing forests in Uganda



# Institutional frameworks governing climate change in Uganda



# Status of forest management in Uganda (state, private, community)

Table 4: Forest Cover Statistics 1990-2010 (in hectares)

Forest ownership	Forest type	1990	2000	2005	2010	2015
PRIVATE	THF well stocked	172,274	127,022	79,789	50,662	20,439
	THF degraded	175,052	160,883	149,008	50,423	35,400
	Woodland including montane	2,971,763	2,258,873	1,948,534	945,221	605,146
	Plantation	12,000	7,000	11,000	19,000	37,000
<b>Sub total</b>		<b>3,331,090</b>	<b>2,553,778</b>	<b>2,188,331</b>	<b>1,065,306</b>	<b>697,986</b>
PROTECTED	THF well stocked	419,456	549,140	419,972	431,259	410,449
	THF degraded	83,911	57,792	36,536	55,160	100,880
	Woodland including montane	1,028,027	842,756	907,752	703,113	556,464
	Plantation	18,000	15,000	21,000	38,000	64,000
<b>Sub total</b>		<b>1,549,394</b>	<b>1,464,688</b>	<b>1,385,260</b>	<b>1,227,532</b>	<b>1,131,793</b>
<b>Grand total</b>		<b>4,880,484</b>	<b>4,018,466</b>	<b>3,573,597</b>	<b>1,292,838</b>	<b>1,829,779</b>
<b>% of total land area</b>		<b>24</b>	<b>20</b>	<b>17</b>	<b>11</b>	<b>9</b>

Source: NFA data 2016



Analysis of net loss so far recorded 2					
	Percentage	1990-2000	2000-2005	2005-2010	2010-2015
Protected Areas		84,706	79,428	157,728	95,739
Private land		777,311	365,447	1,123,025	367,321
Total		862,017	444,875	1,280,753	463,060
Protected Areas	13.7%	2.8%	2.6%	5.2%	3.1%
Private land	86.3%	25.5%	12.0%	36.8%	12.0%
Analysis of net loss so far recorded 3	1990	2000	2005	2010	2015
Forests on Private land	68%	64%	61%	46%	38%
Forests in PA	32%	36%	39%	54%	62%

Source: Adopted from NFA report 2016

## *Importance of adjusting forest management plans & practices to cope with changing climate*

- The need to promote community forest stewardship so that communities live in harmony with natural resources like forests and wetlands
- Reducing the costs of inaction due to CC.
- Increasing carbon stocks for reduction in emissions
- Promote Ecosystem -based Adaptation (EbA)

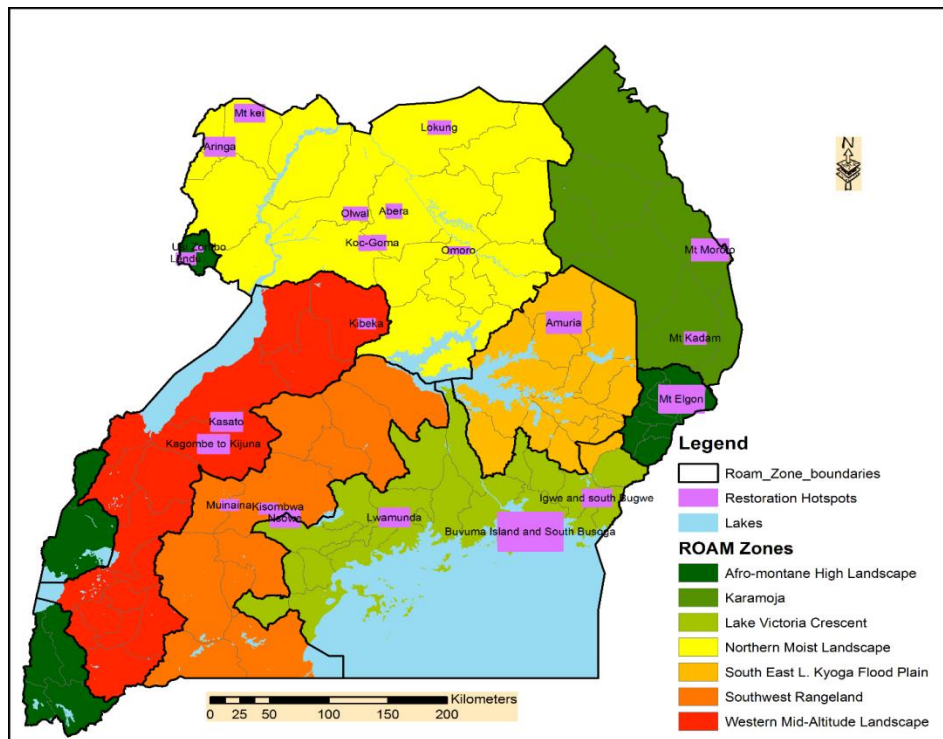
## *Requirements for adjusting forest management plans & practices to cope with changing climate*

- Strengthening coordination of forestry actors
- Sensitization programmes -
- Manuals and training
- Technical assistance
- Forest vulnerability assessment
- Forest Inventories
- Strengthening GIS, FSIS, mapping



Bonn Challenge target (to restore 150 million hectares of deforested and degraded lands worldwide by 2020)

- Support countries, organizations, communities and enterprises in defining and implementing pledges to the
- FSSD & IUCN's Work on Forest Landscape Restoration
- Uganda: 2.5million
- Product so far = ROAM and map for zonation / hotspots for different interventions



## Hotspots of Karamoja, Mt Elgon and Northern of Degraded forest



Parts of Bwaise were made impassable by a downpour, June 28 2011 which lasted well over half an hour and was enough to flood several K'la roads.



Part of Bugoma Forest in Hoima that is being threatened by encroachment



Agroforestry of fruits and food crops

*End of Presentation -  
Asante sana*