Localizing Climate Change in Uganda

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Outline of Presentation

- Introduction
- Understanding Climate Change in Uganda
- The momentum towards Adaptation
- Case studies
- Some broad questions

Introduction

- Uganda signatory to UNFCCC
- Participant in COP
- Active in negotiations alongside the Least Developing countries
- Deposited NC, NAPA
- Country reports ad profile

Understanding Climate Change in Uganda

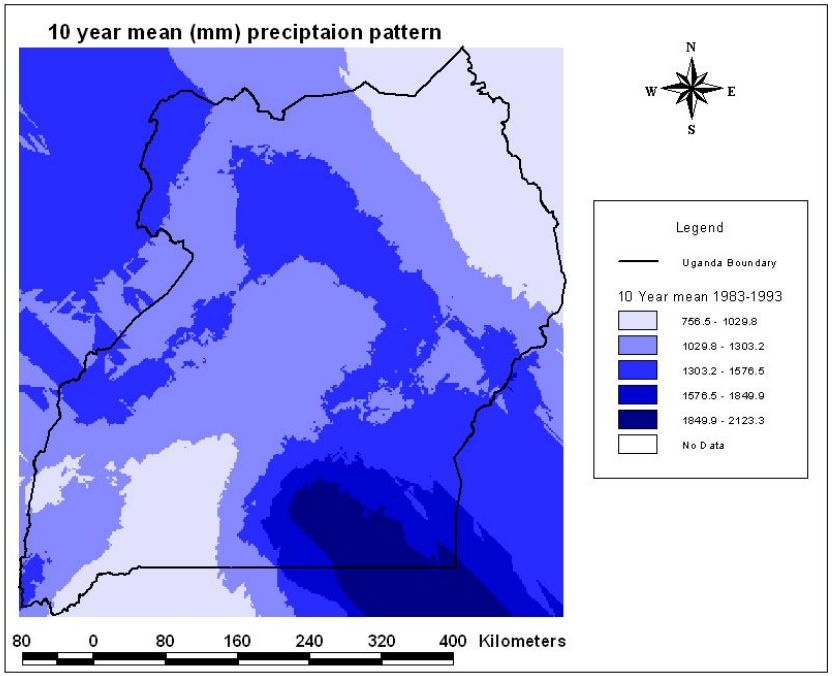
- A study that preceded the NAPA
  - UNDP Tyndall Center; climate country profiles
- NAPA repository
- Sectoral based
  - Agriculture, biodiversity, water, tourism
- A spin off of various studies regional and site specific
  - NGO Forum, Scientific studies

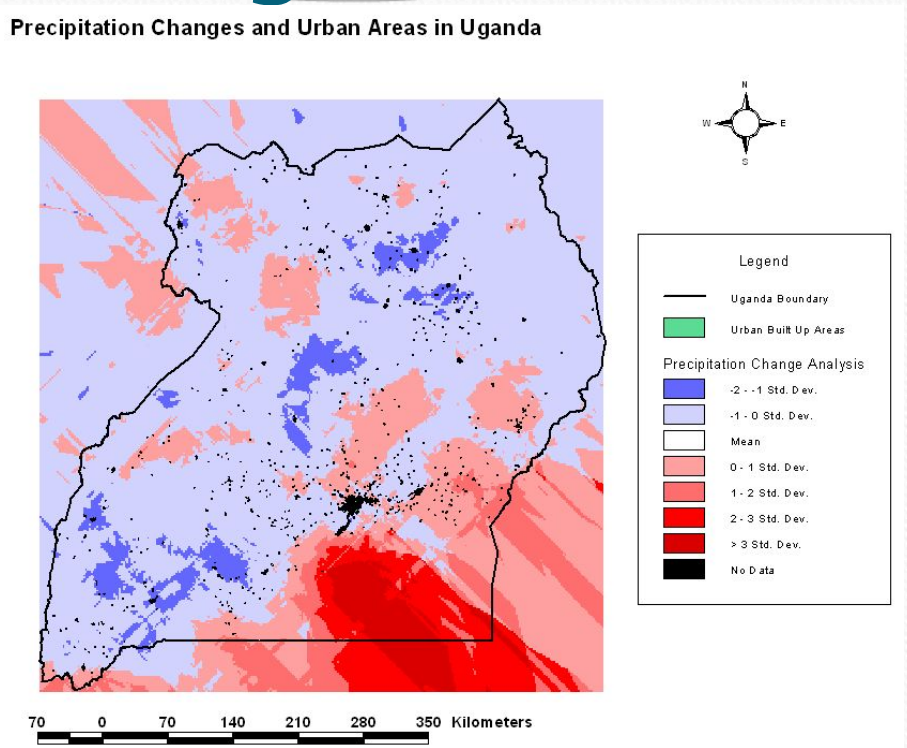
The momentum to work on CC

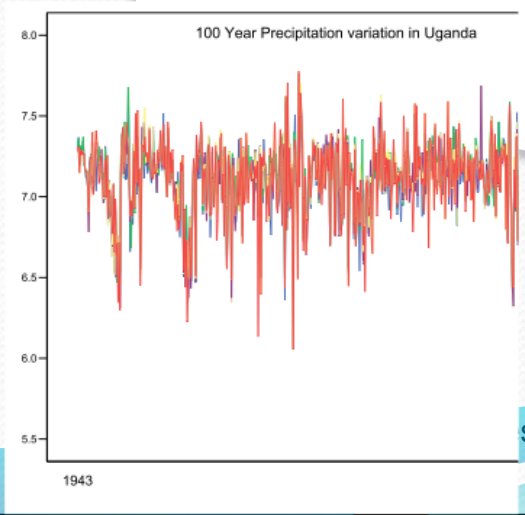
- Climate Unit in Ministry of Water and Environment
- Focal Point for UFCCC
- National Communication
  - GHG inventory 1995
  - Vulnerability Assessment at national level

Case study 1

Climate Analysis in Uganda







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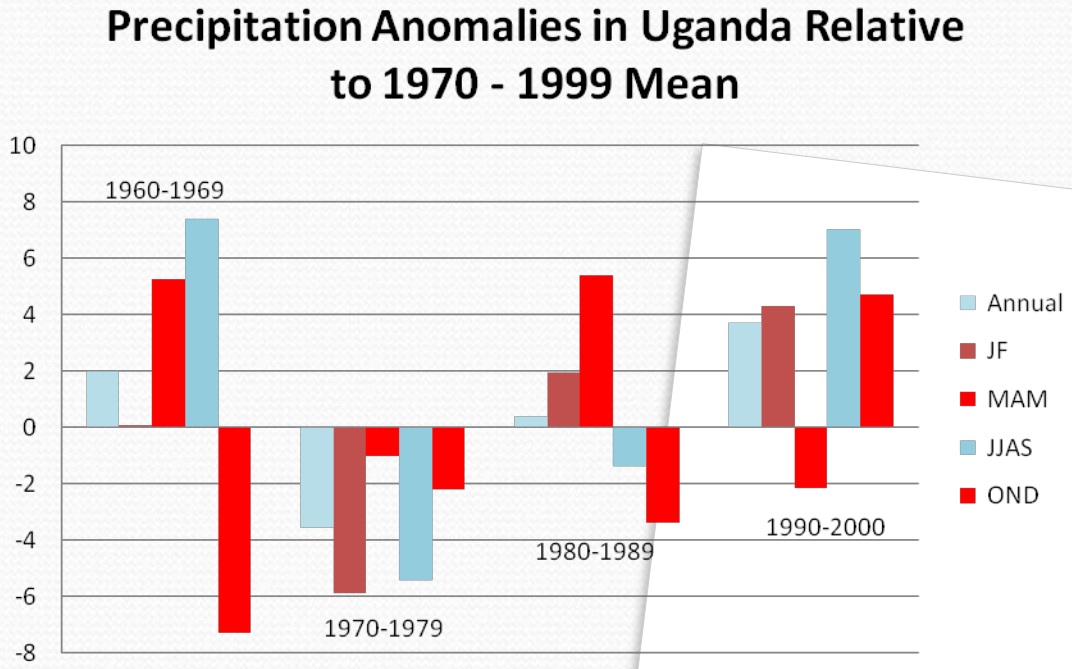
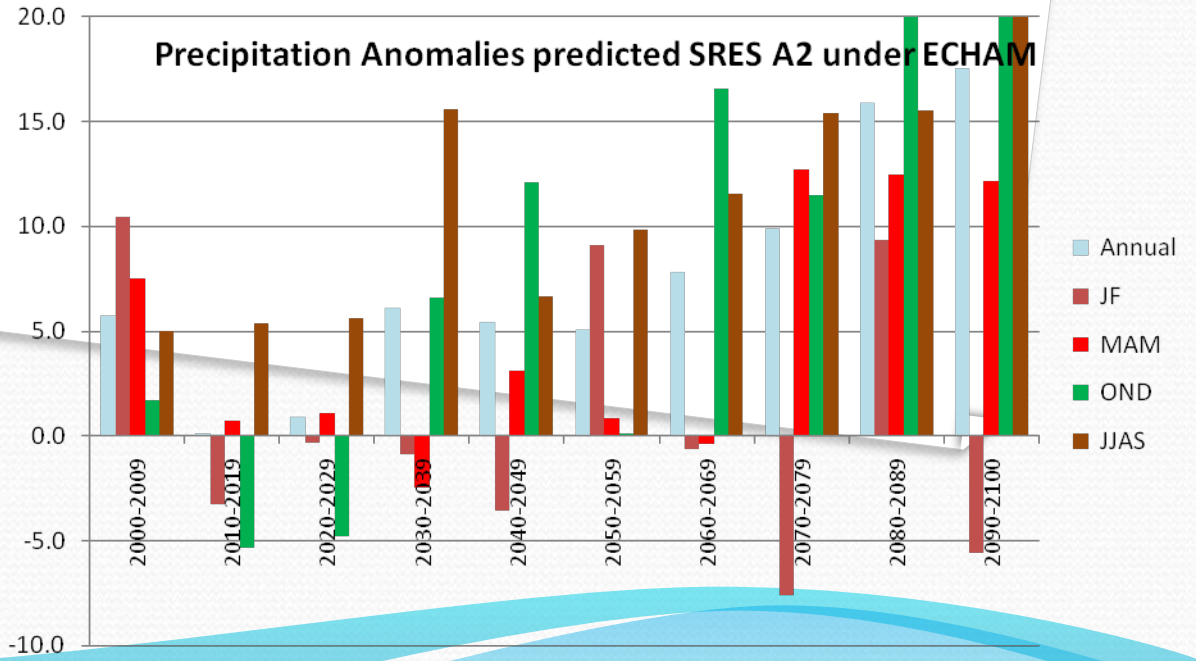


Observed

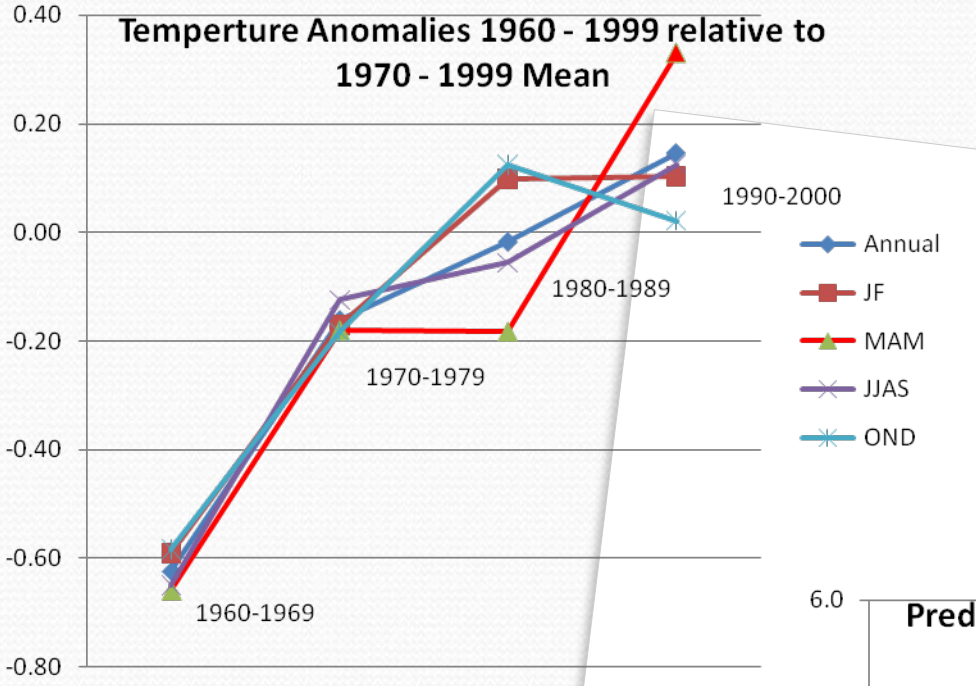
Decreasing in annual and MAM rainfall 3.4 m per month

Sub-regional variations Lake Victoria an increase by 90 mm annually decrease in OND

Predicted



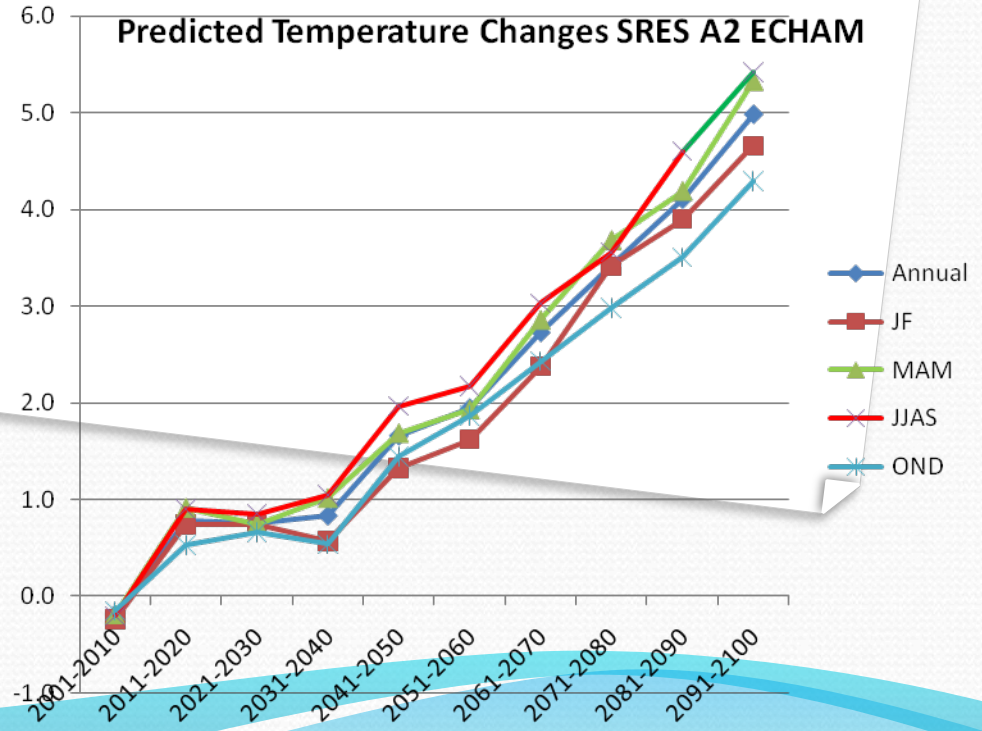
Source: http://country-p ofiles.geog.ox.ac.uk/UNDP_data/Uganda/Uganda.alldata.zip



Observed

Decadal increase of 0.37^0 C

Mean annual increase by 1.3^o C

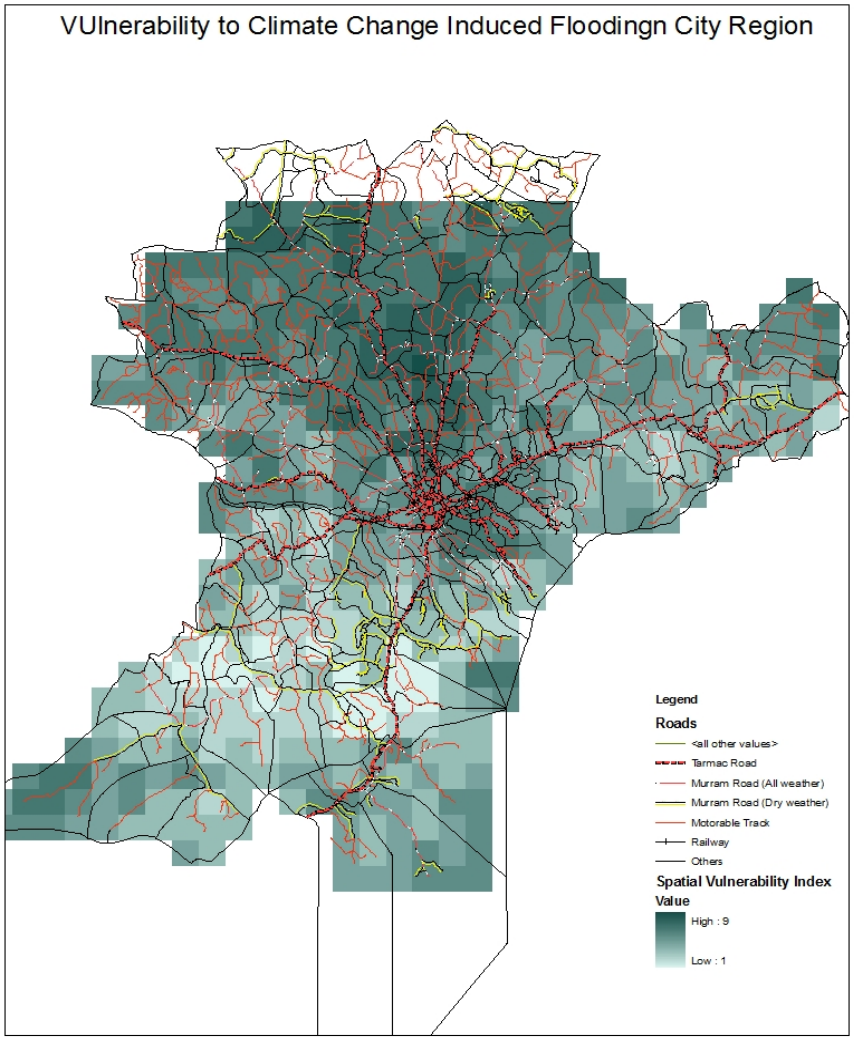


Predicted

Usefulness of climate analysis

- Climate variability and change in Uganda
  - Observed and predicted changes in rainfall and temperature
  - Variable over the last 6 decades with anomalies
  - Over space and time in the country
  - Experienced variability already causing disasters; floods, droughts
  - Predicted changes have implications to water resources, food security, human settlements, infrastructure and natural resources

Kampala and CC



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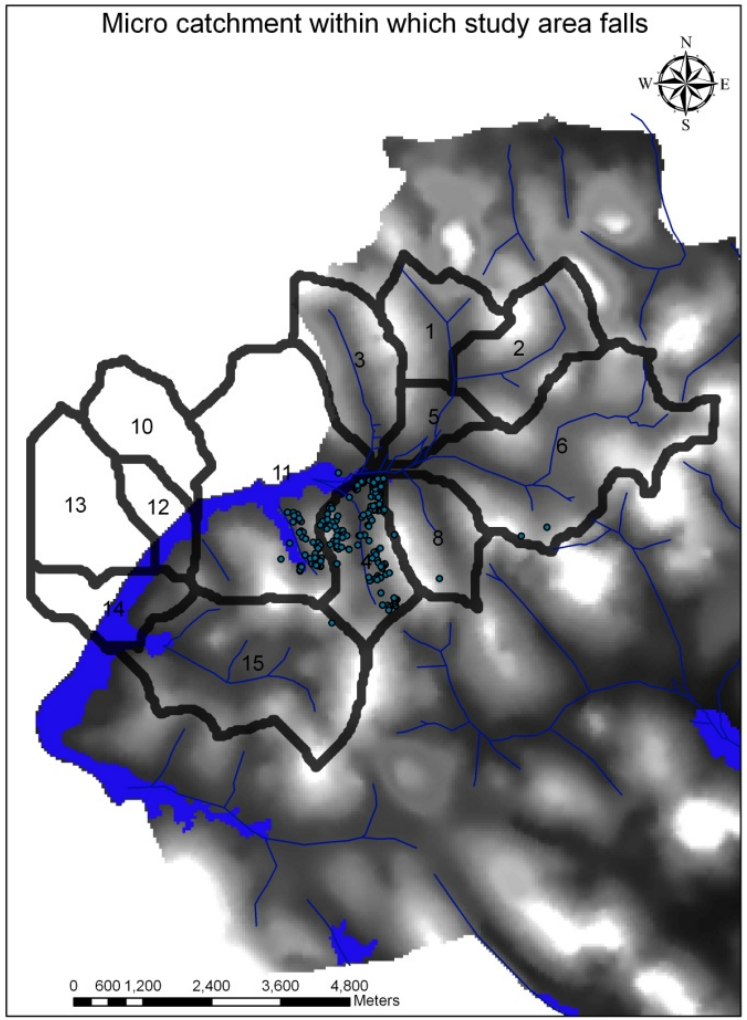
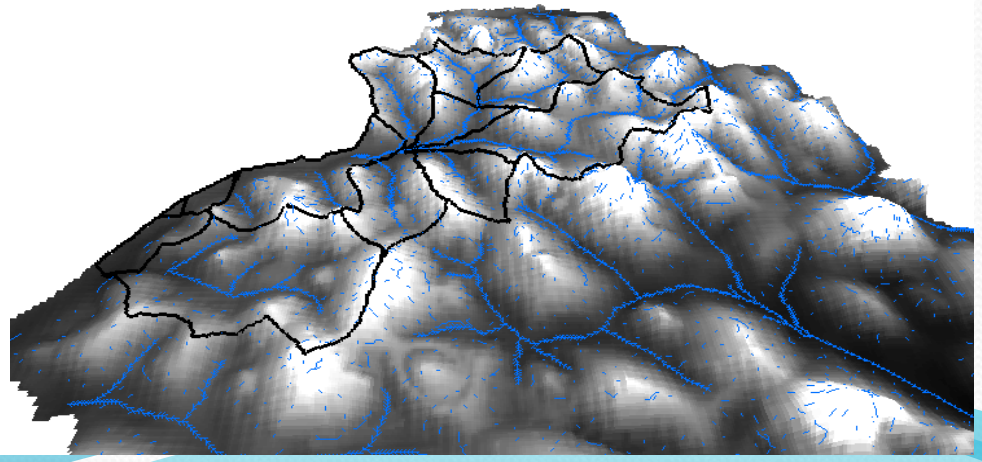
Flooding Assessment and adaptation in Kampala

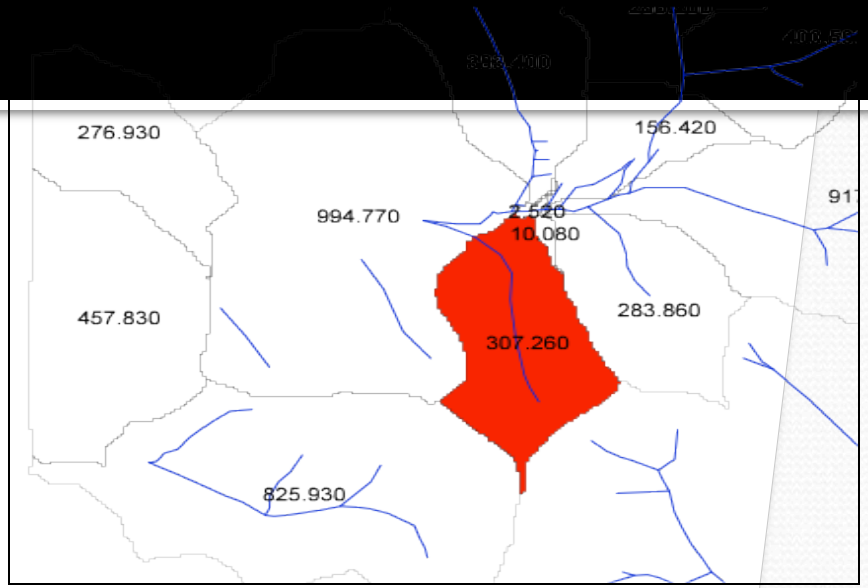


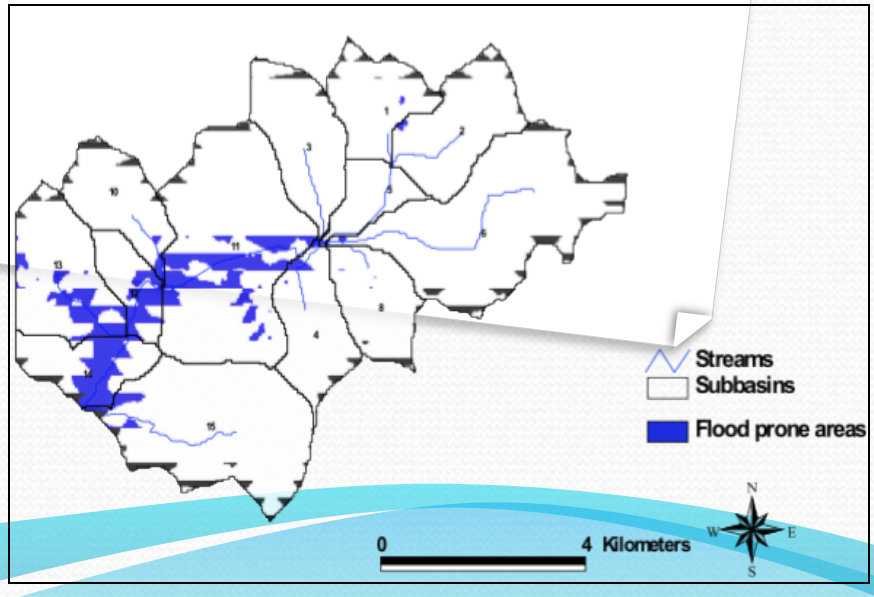
- The flood waters recede after a period of between 1 day to 1 week
-
- Types of slow onset, rapid onset and flash floods



Knowing what and how to.....

- The peak discharge of the stream 0.13 m^3/s
- Runoff contribution of sub basins (11.26 to 87.78 m^3/s)
- Runoff yield ranged from 0.069 to 2.79 $m^3/km^2/day$
- An overlay of housing structures revealed that 40% are in flood prone areas

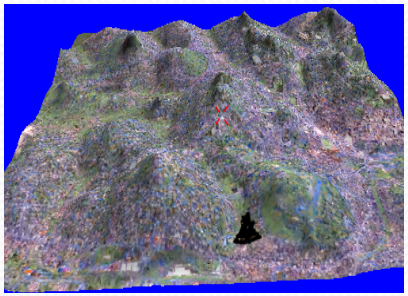




Adaptation Measures to floods

- Productive urban greening and devised technologies that are space confined
  - Utilizing courtyards
  - Rooftops, patios and corridors between houses
  - Rainwater harvesting
- Storm water management infrastructure that is robust
- Consideration of legal instruments
- Sustainable Urban Drainage Design principles adopted under the Integrated Flood management Strategy

PLANNING FOR CLIMATE CHANGE ADAPTATION IN KAMPALA, UGANDA



CAVEATS FOR PLANNED ADAPTATION AND ACTION

- INSTITUTIONAL REFORM AND READINESS
- CAPACITY TO RESPOND IN A SYSTEMIC MANNER
- THINKING BIG AND STARTING SMALL
- ADAPTATION FUND

CITY DEVELOPMENT STRATEGY

ASSESSING ADAPTATION NEEDS

PRIORITY PROJECTS

VISIONING AND STRATEGIC PLANNING

CAPACITY DEVELOPMENT AND READINESS

LEGALLY BINDING FRAMEWORK

DEMONSTRATION PROJECTS

ON-GOING PROJECTS

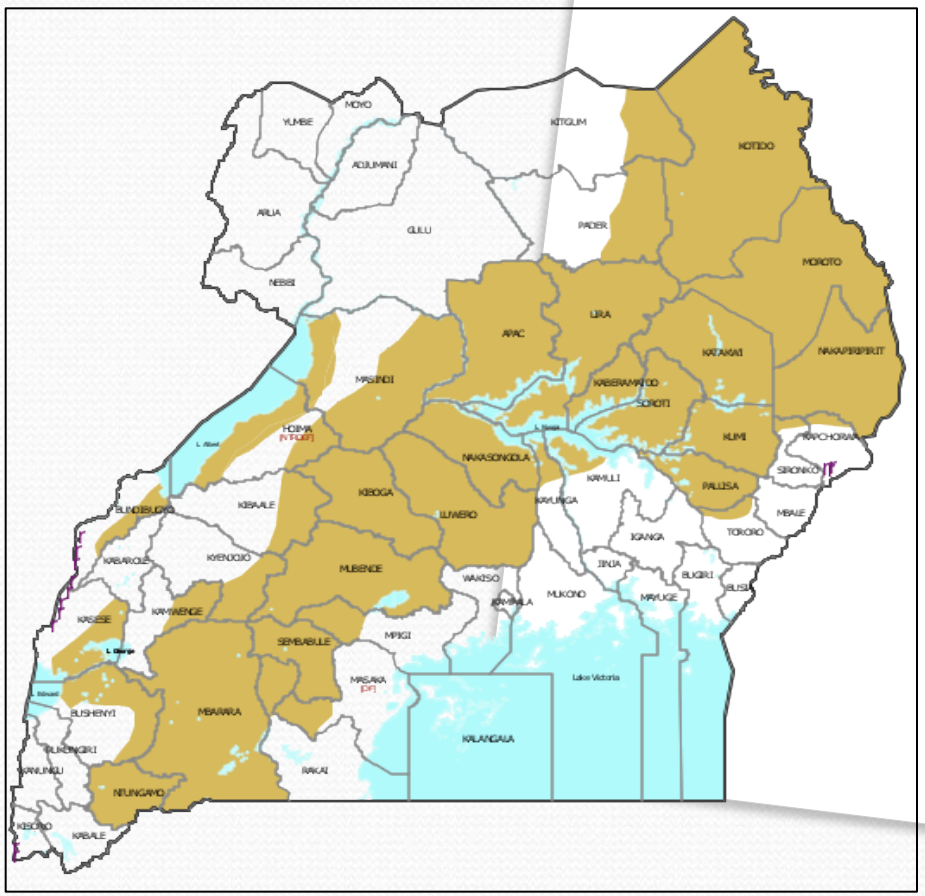
PLANNED PROJECTS

STRATEGIC PLAN

PLANNED ADAPTATION, CLIMATE PROOFING, UP SCALING

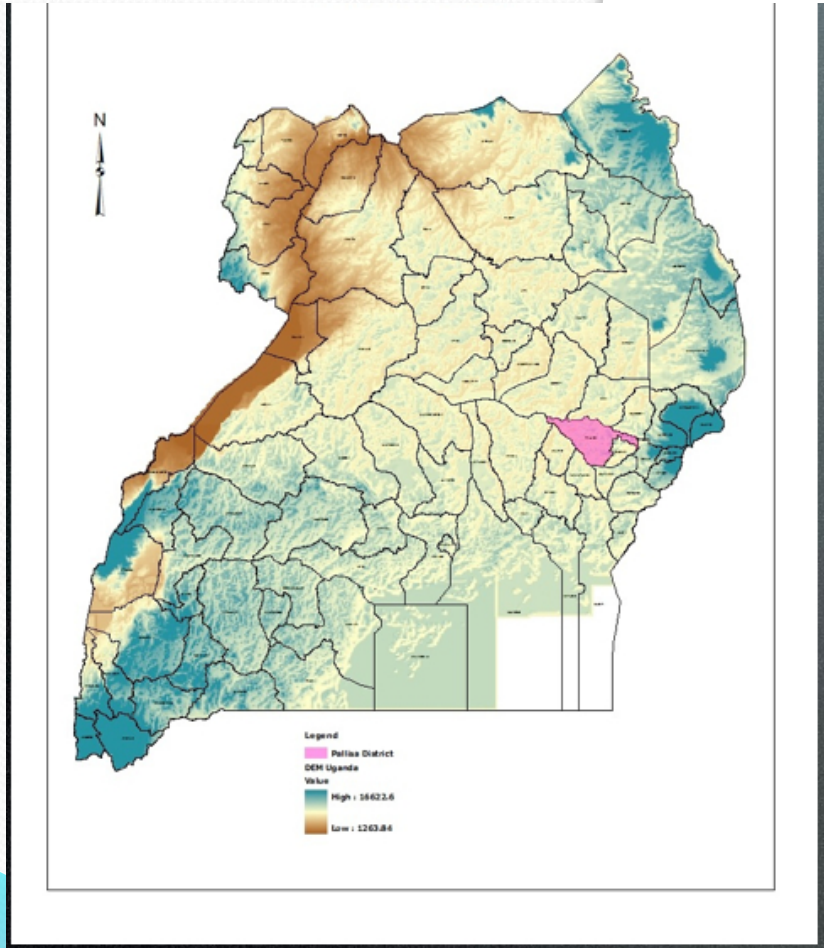
Case study 3

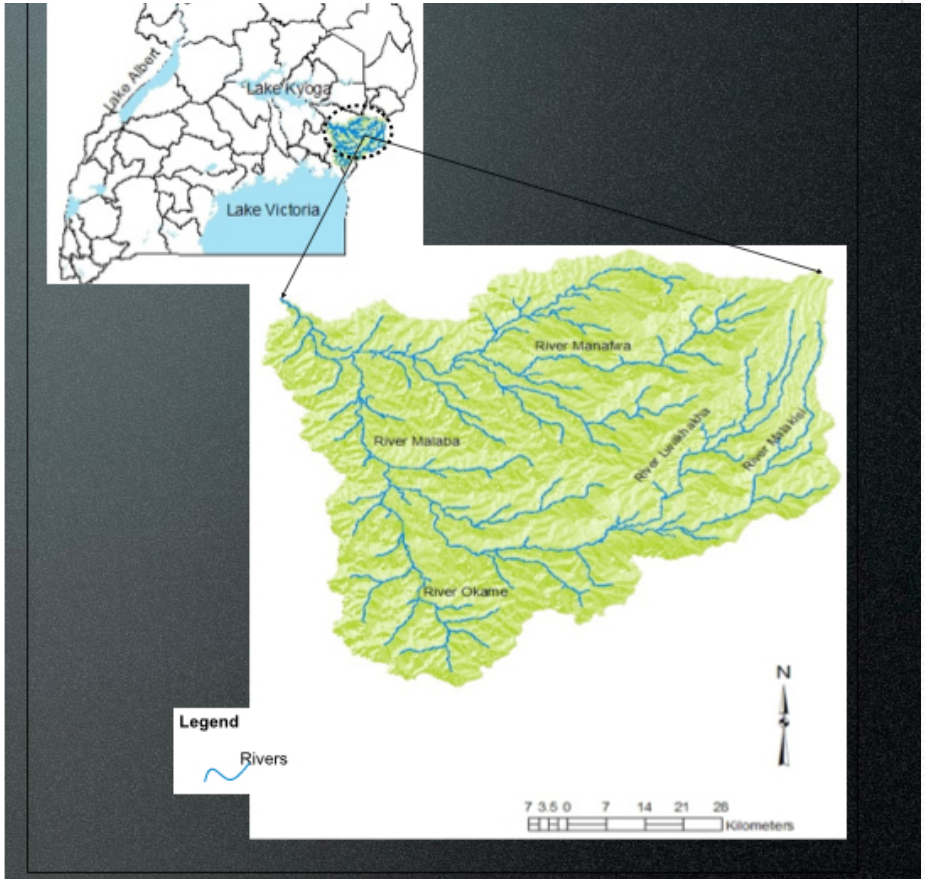
Rural landscapes and climate change

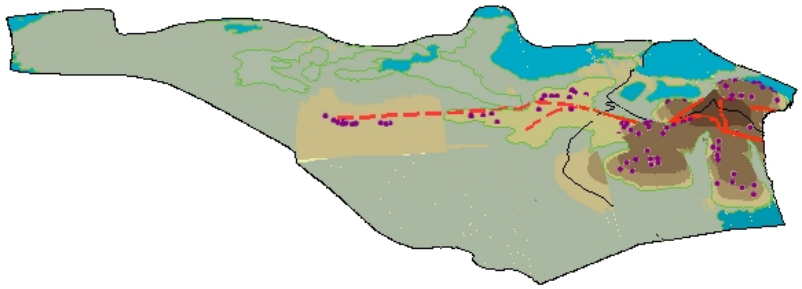


Areas severely affected by drought in Uganda (cattle corridor). Source: OI

Drought affected areas

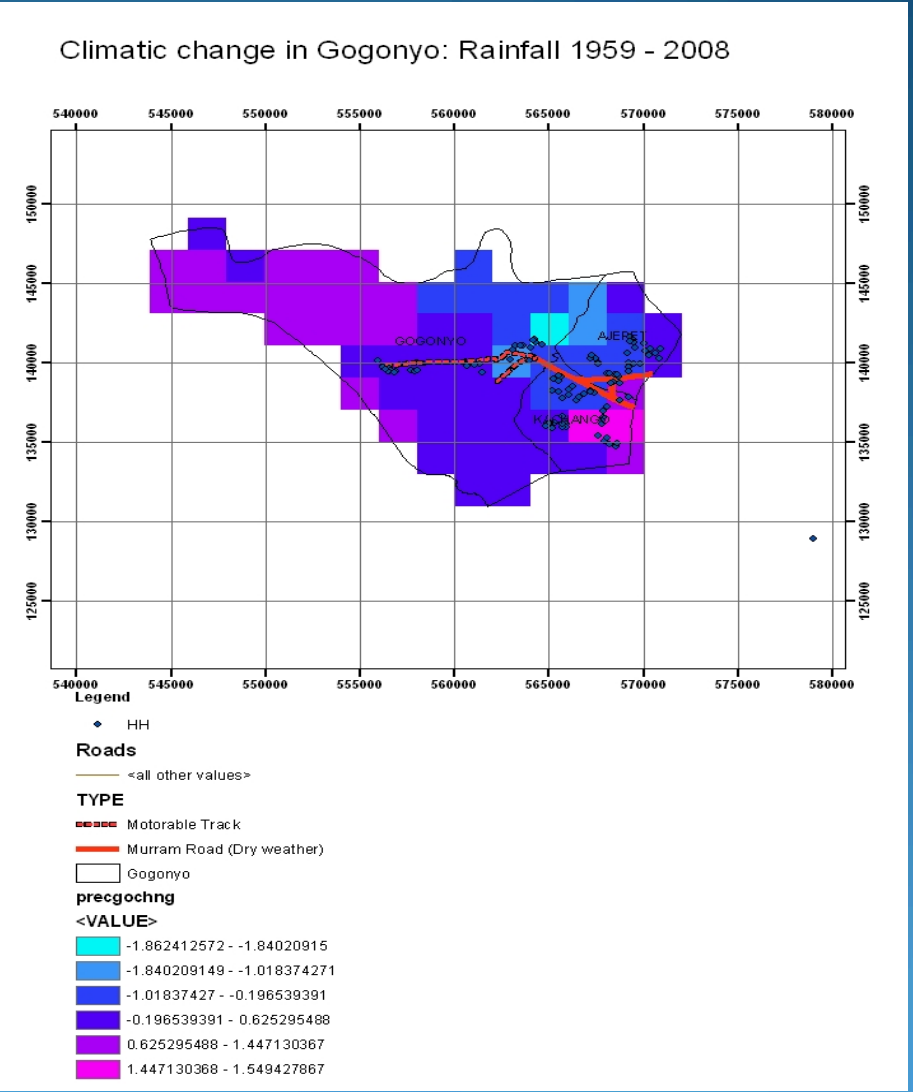






Gogonyo Objectives of the Study

- To assess the vulnerability of the community of Gogonyo Sub County to the impacts of climate change, and document the adaptation options practiced.
- To identify adaptation mechanisms required to enhance community resilience to the impacts of climate change



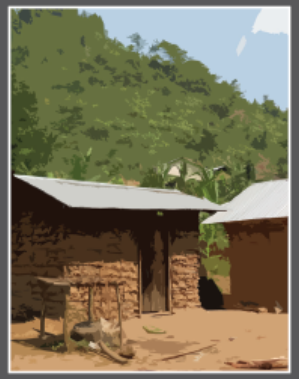
Vulnerability Assessment Index using Weighted Method

WEIGHTED INDEX OF TRANSFORMED DATA	Key Resilience indicators						Climate Risks		
	Education score	Average Wealth rank	mean hh size	rank of impact on food	rak of impact on grazing	rank of impact on health	Flooding	Drought	Heavy rainfall
WEIGHTS	5	35	20	25	5	10	30	45	25
Ajepet	109.5	1547.2	975.2	0.0	217.4	123.2	636.4	3927.3	408.4
Angodi	500.0	2122.7	2000.0	1392.5	500.0	192.6	1000.0	3331.2	397.1
Gogonyo	0.0	3500.0	0.0	304.1	0.0	0.0	3000.0	0.0	2500.0
kachango	257.1	0.0	769.2	2500.0	137.0	1000.0	0.0	4500.0	0.0

vulnerability index Scenario ONE (Drought and Wealth more important)

Scenario One			
	Resilience	Exposure	VI
Ajepet	29.7	49.7	-20.0
Angodi	67.1	47.3	19.8
Gogonyo	38.0	55.0	-17.0
kachango	46.6	45.0	1.6

INDIGENOUS HEALTH *adaptation to* CLIMATE CHANGE



Case study 4

Advancing Knowledge

Knowledge Management

Capacity Development

Vulnerability characterization

BOI, AGI, Food Security, Water Quality, Risk Factors

Current and Future Adaptation synthesis

Systematic comparative study of future vulnerability

Pathways for adaptation, policy requirement, barriers and potential

Accomplished

Planned

Adaptation a contested concept

- Interpretation and action
  - Local languages don't have an equivalent
- Adaptation and development
  - Two contested concepts both in dialogue and practice
- If climate change narrative shapes adaptation
  - Then what is the additionally?
  - If it is development and adaptation is necessary, then what is the adaptation gap?

Thank you!