

# **Enhancing Climate Change Information Access to Decision Makers at Local Level Through Storytelling**

A paper presented during The Africa Climate Conference 2013 (ACC-2013)  
on 15<sup>th</sup> Oct 2013

Y.B. Mkwizu, P. Yanda, R.Y.M. Kangalawe  
University of Dar es Salaam

# OUTLINE

- Why look on cc information access

- FROM AVAILABILITY TO ACCESSIBILITY

How presentation of CC information contribute to users access

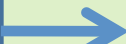
- Genders consideration
- Age consideration
- Education level consideration
- Position

AVAILABILITY OF  
CC  
INFORMATION



ACCESSIBILITY OF  
CC INFORMATION

KNOWLEDGE ON CC IS  
GENERATED



PARTLY STORED AS CC  
INFORMATION  
(Physically Available)



DISTRIBUTED AND  
DISSEMINATED  
(Physical Access  
Enhanced)  
BY ACTORS



SOCIAL AND  
INTELLECTUAL ACCESS  
PRESENTATION MODE

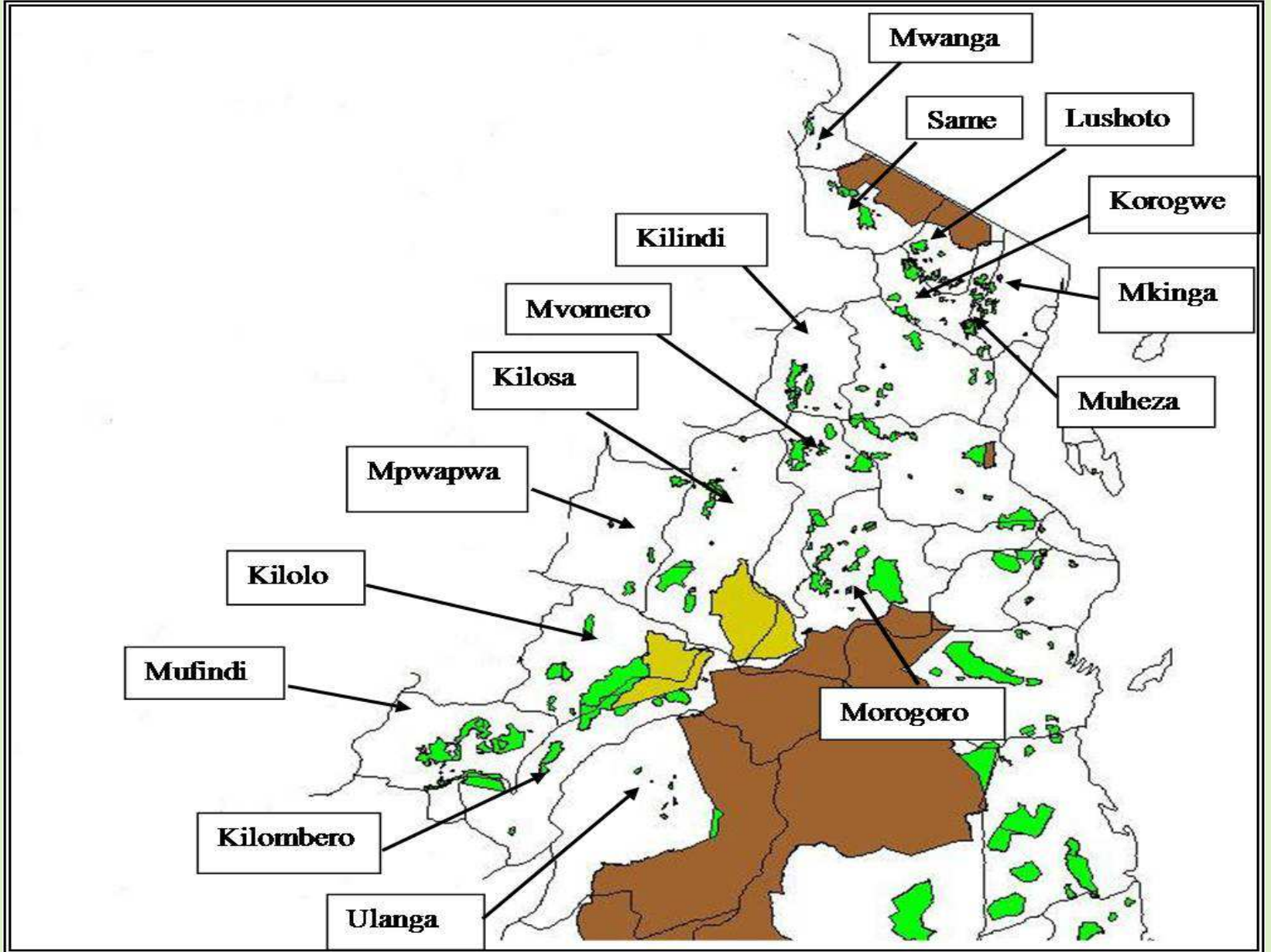


# WHY DISTRICT LEVEL ACTORS

- The Local Government Act of 1982- councillors and technical officers have the role to facilitate information accessibility.
- The Local Advisory Committee (LAC) on Env and NR comprised of councillors and technical officers communication of information on env, NR and CC related initiatives to local level
- LAC need to access, then help access by comm

# WHY EASTERN ARC

- The ecosystem is covered by forests with an area of about 23,000 km<sup>2</sup>.
- It is one of the 34 world's biodiversity hotspots that are under extreme threat from human activities (illegal logging, agriculture, forest fire, mining).
- It is a source of water, for domestic and irrigation.
- Urban uses in DSM , Tanga, Morogoro and Iringa.



# What is the gap

- One objective of climate change strategies including NAPA and NCCS is to increase knowledge on CC and its impacts.
- However, sharing and access of the available information is not adequate.
- End users (both policy/decision makers & communities), still have limited access to information and therefore lack knowledge to help them address climate change impacts

# What is the gap

- A range of communication processes using various channels, have been compared
- The role of storytelling presentation technique has not been assessed in comparison to conventional technique and to district level actors.
- Can storytelling presentation enhance access to information and knowledge at sub-national (district) level on climate change



# objective

- The main objective is to assess the contribution of storytelling presentation of climate change information in enhancing its access policy and decision makers at sub-national level  
  
Specific objective: To examine preference of conventional and storytelling presentation techniques in accessing information and knowledge from NAPA and NCCS by district level actors

# Literature

- Access to information
- Knowledge management
- Communication
- Storytelling presentation

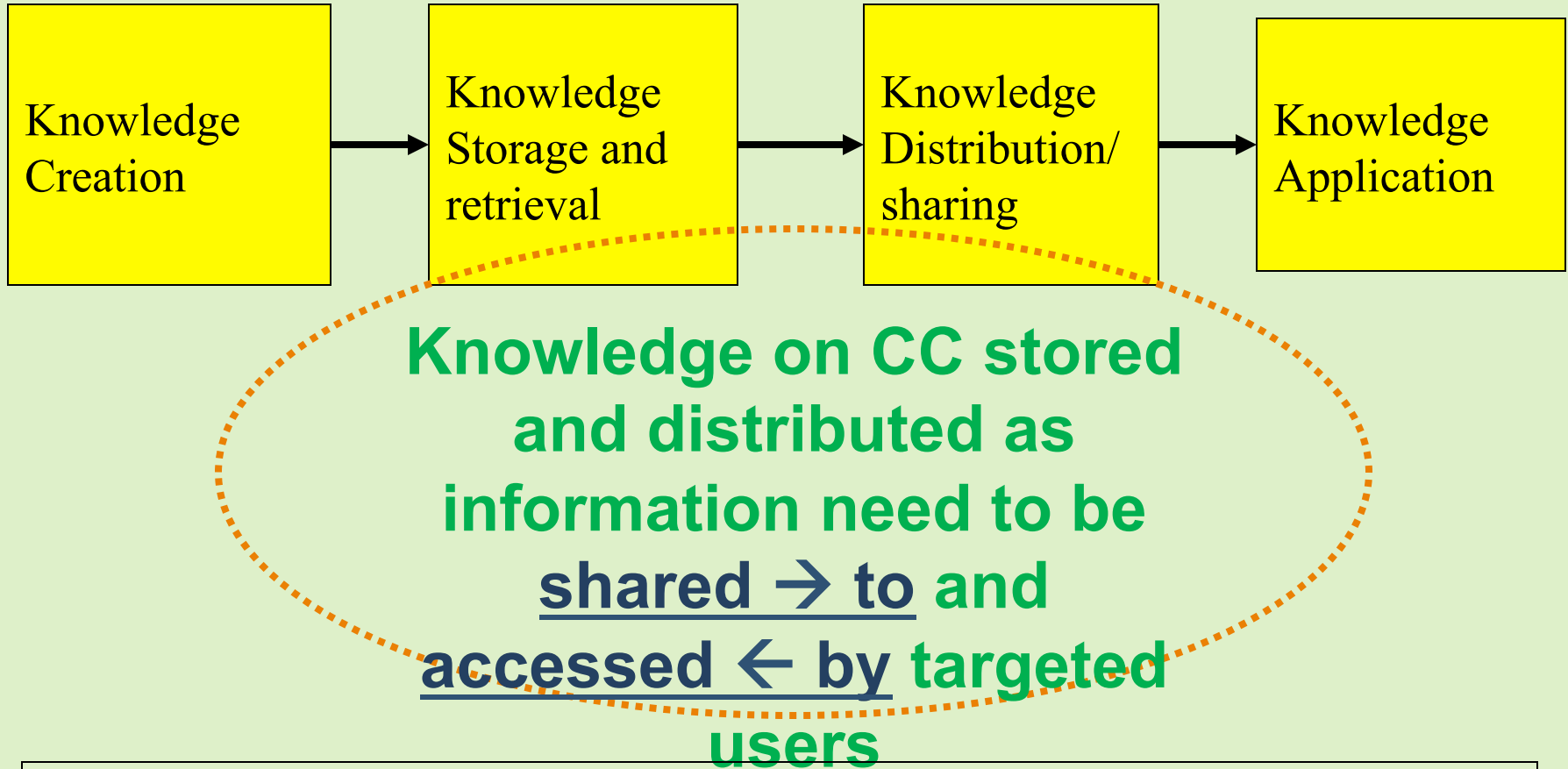
# Access to information

- Have more than one component
- Most studies summarize three components:
  - Physical- obtaining structures that contain information
  - Social - elements of one's social world which influence decision to read, listen or watch
  - Intellectual - understanding of information you read

# Access to information

- The value of information is when it can be physically accessed, attracted its reading and the meaning understood for the the user to gain new knowledge from it.
  - We need to look both Information and knowledge management.

# Knowledge Management



Modified Knowledge Management Process by Alavi (2000)

# Communication

- Intended users of information have therefore accessed if: **they physically have it, socially accept to read and intellectually understand the meaning.**
- The sender has communicated information to the receiver if the latter is able to access that information.

# Storytelling

- In this study is used as a presentation of information (concepts, issues, data and messages) using narration of events, actions taken or done by characters.
- Storytelling presentation is based on information presented conventionally (in a formal way) such as NAPA or strategy (NCCS)
- There is a balance between messaging and entertainment and maintain the objectives

# Why storytelling

- Neuroscience research reports that the human brain is naturally wired to receive and remember every human experience within a structure of a story
- Storytelling is the way in which people access, express, and retain information and knowledge.
- Storytelling is also considered the same as narrative inquiry either written down or provided orally
- Indigenous Knowledge system has been through storytelling. Including climate and weather



# The importance of storytelling is evident in newspapers

- Floods that damaged a section of the road linking Arusha and Mara regions yesterday left hundreds of tourists and other passengers stranded as the road was rendered impassable. Following the night-long downpour in the upstream, water quickly filled Kirurumo River causing floods at Mto wa Mbu in Monduli District, where a bridge was washed away.

Source: <http://www.thecitizen.co.tz/News/>

Posted Thursday, March 28 2013 at 00:00

# Methodology

- A manual with information on the basics of climate change was summarized. This was considered a conventional presentation
- Information was taken from NAPA and NCCS
- The impacts of climate change in agriculture, water and health was emphasized
- A storytelling presentation was made from the manual.

# Methodology

- Six districts namely, Muheza, Korogwe, Mkinga, Kilombero, Kilolo and Mufindi, bordering EAMFE were purposeful selected based on the presence of climate change related initiatives
- The study used experimental design and explored replication to test social access to climate available change information.

# Eastern Arc Mountain Forest Ecosystem (EAMFE)

- EAMFE is one of the 34 world's biodiversity hotspots that are under continuous extreme threat from human activities.
- The ecosystem is a source of water, which is used for domestic and irrigation, supporting small scale and commercial agriculture in the surrounding districts as well urban and uses in Dar es Salaam, Tanga, Morogoro and Iringa

# Research design

- The study used experimental design
- Explored random replication designs
- The design increases the reliability of data and minimize variations because of the differences between the participants which could have happened.

# Participants

- Participants were allowed to read two sets of documents and then asked to give preference for their own and communities' use. The same experiment was replicated in six districts.
- Data collected was organized for the analysis. Descriptive statistics was computed using SPSS and excel.

# RESULTS preference for own use

- Results show that 61% of district level actors prefers storytelling presentation while 39% prefer conventional technique for their own use.
- 79% of women prefer storytelling presentation against 21% preferring conventional methods, while 65% of men preferred storytelling as compared to 35% who preferred conventional methods.

# RESULTS For community use

- For community use, the results show that 80% of technical officers prefer storytelling presentation against 20% who prefer conventional methods.
- 58.5% of politicians preferred storytelling compared to 41.5% who preferred conventional methods.



## Preference of presentation of cc information for community use

Position	Presentation technique		
	Conventional	Storytelling	Total
Politicians	41.5	58.5	100
Technical officers	20.0	80.0	100

# Conclusion

- These findings suggest that overall, when sub-national level actors are physically availed with climate change information presented in storytelling they have more likelihood social access to it, than if the same information is presented in a conventional way.
- Female have a higher preference of storytelling presentation than men

# Conclusion

- Politicians have higher preference of storytelling than technical officers for their own use.
- Both technical officers and politicians show higher preference of storytelling of climate change information for community use than conventional presentation
- True based story is preferred to a completely fiction one

# STORTELLING PRESENTATION CAN HELP

- MOVING FROM FORCED INFORMATION ACCESS TO VOLUNTARY ACCESS
- ENHANCING PULL PHENOMENA TO COMPLEMENT PUSH PHENOMENA
- FOCUS ON SYMBOLIC INFORMATION USE THAN INSTRUMENTAL USE
- Improve: KNOWLEDGE MANAGEMENT IN CLIMATE CHANGE INITIATIVES AT LOCAL LEVELS

# Recommendation

- Storytelling should be used when communicating information to sub-national policy and decision makers about climate change science, measures to address its related impacts and ways to benefit from its opportunities
- Stories on climate change information should base on true events and processes
- Long stories should be divided into series of short ones

# Recommendation

- Because presentation mode of climate change information can have a significant contribution in enabling its access and under position, gender, age and education level categories then,  
Balancing between conventional and storytelling should consider differences in the preferences of intended users.

# Recommendation

- More research is needed to examine the contribution of climate change presentation in enabling level three access (intellectual access)
- There is a need to assess preference of national level actors.

# Can we make our own story

- A group of great men and women gathered in Arusha -Tanzania in October 2013 to craft an Africa-wide agenda for climate research and to explore climate research priorities, identify information needs for early warning and adaptation, enhance the networking of climate scientists, and support capacity development. The conference was an event of knowledge and experience sharing through speeches, papers presentations and constructive discussion. Mr. X was one of the participant from y. When he arrived back to his office, a meeting was organized for him to share the new knowledge he had obtained. It happened that his office was just starting a project of developing a plan to mainstream climate change issues into their activities. After being invited by Madam Z, the Director, Mr X started .....



THANK YOU FOR  
LISTENING