



WISER approach to provision of climate information services

24/10/2019,

Rainbow Towers Hotel, Harare, Zimbabwe

John Mungai





Outline

Background/ Overview of WISER

Examples of approaches in the provision of CIS









Background of WISER

- Weather and Climate Information Services for Africa (WISER) is a programme funded by the UK government's Department for International Development (DFID) and managed by the UK Met Office.
- Implementation period 2016 2020
- WISER's mission is to deliver **transformational change** in the quality, accessibility and use of weather and climate information services at all levels of decision making for sustainable development in Africa.
- Too often, climate information and services are not user-centric and their potential to impact decision making and planning at multiple levels, remains limited.

Components of WISER Programmes



A Policy and Enabling Environment Component (PEEC) focussing on improved governance for weather and climate services across Africa.

An East Africa programme aimed at improving the quality and relevance of weather and climate information, and supporting its uptake and use. Fund Manager

Solution Met Office **£20m**







Access to **improved information** for...



3,500,000 Households







Principles

Delivering transformational change

- Focussing on service delivery recognising need for co-produced products and services
- Supporting climate information providers, users, intermediaries and other collaborators
- Interventions based around suitable regional, national or sub-national plans
- Demonstrating a contribution to delivering socio-economic benefits
- Working in partnership





East-Africa programme

- Improving the quality and relevance of weather and climate information and supporting its uptake and use
- Six East Africa regional projects (HIGHWAY, DARAJA,WEATHERWISE,TRANSFORM,AM DAR, W2SIP)
- Six national projects Kenya, Rwanda, Tanzania, Uganda, South Sudan&Somalia





Examples of approaches in the provision of CIS





Weather Wise:

Joining forces to communicate weather and climate information for decision-making



Weather and Climate Information Services for Africa

OBJECTIVE



Strengthen the capacity of media professionals and technical experts to respond to the climate and weather information needs of farmers, fishermen and pastoralists living in Northern Kenya, around the Lake Victoria regions of Kenya, Uganda and Tanzania

Kenya

"I would like to know more about simple affordable farming technologies to deal with severe weather changes that are threatening my livelihood,"

Farmer, Masaka District

FORMATIVE RESEARCH – Objectives

To understand:

- How target audiences are accessing and using climate and weather information, and any barriers they face
- The priorities and needs of target audiences when it comes to climate and weather information
- The opportunities and challenges faced by climate experts in reporting weather and climate information
- The opportunities and challenges faced by journalists in reporting weather and climate information



Radio Listener, Korogocho, Nairobi.



BBC MEDIA ACTION



Key findings

Target audiences:

- Pastoralists and fishermen trust indigenous climate predictions more than scientific climate predictions.
- Are caught between ceding reliance on indigenous climate forecasting in favour of the scientific approach to predictions that is not well understood.

Turkana County



"Sometimes the intestines have been wrong, in 2017 the elders predicted it was going to rain but this did not happen" Male pastoralist, Turkana.



Key findings



- Target audiences want localised, contextualised, reliable weather and climate information that helps them decide what to do next.
- Journalists do not feel confident communicating climate information because of the jargon involved and the attitude of scientists towards them
- Climate scientists Experience challenges translating scientific information into useful data for non-scientific audiences.
- Highly sensitive to the fact that unmoderated dissemination of climate information can result in both political and individual backlash and hence opt to take the 'middle lane'.



Kotieno Beach, Homa Bay County

Pastoralists listen to the radio: 7-9pm when herders are back from the field Fishermen listen to radio: Between 11am 1pm, when on land and not Farmers listen to radio: Before 9am, when they go to the farm and 8-9pm when relaxing after work "The forecast is general, it does not have the information that we need. We want to hear a forecast talking about the winds that affect the fishermen, to see the forecaster showing us our islands and what is happening in there, not some map that is not specific to us". Male fisherman, Uganda.



Weather Wise Radio Partners

TRANSFORMING LIVES THROUGH MEDIA AROUND THE WORLD

BBG MEDIA ACTION

Radio Station	Region/County	Frequency	Language	
Radio Kaya	Kwale	93.1 FM Mombasa, 99.7 FM Malindi, 94.9 FM Voi	Kiswahili	
Maata FM	Turkana	101.9 FM	Turkana	
Sifa FM	Marsabit	101.1 FM	Rendille and Kiswahili	
Gulf Radio	Homa Bay	88.3 FM	Luo	
UBC Star FM	National Broadcaster	87. 5 FM	Buganda	
Bukedde FM	Lake Regions, Uganda	100.5 FM	Buganda	
KBC	National Broadcaster	92.9 FM	Kiswahili	
Radio		97.9 FM	Kiswahili	

Feed back/ Monitoring and Evaluation





Sms/call logs at radio stations

"I would like to know more about simple affordable farming technologies to deal with severe weather changes that are threatening my livelihood,"

Farmer, Masaka District

Take home point

IN ORDER TO ENHANCE UPTAKE OF CIS CLIMATE SCIENTISTS NEED TO WORK WITH MEDIA AND USERS TO DEVELOP USEFUL WX INFORMATION AND COMMUNICATION PATHWAYS





MHEWS TANZANIA

Multi Hazard Early Warning Services for Tanzania

Key Outputs

- Impact based forecasting workshops and engagement to define user needs
- Standard Operating Procedures (SOPs) for EWS service delivery developed
- Operational EWS for the coastal regions of Tanzania
- Enhanced national daily forecasts











MHEWS TANZANIA

Multi Hazard Early Warning Services for Tanzania

Key Stats







Output 2: Early Warning Service

To further develop and enhance the MHEWS product, based on insights from output 1, and to deliver a

Telegrams:"METEO"DAR ES SALAAM.

Telephone: 255 (0) 22 2460706-8 Telefax: 255 (0) 22 2460735

E-mail: met@meteo.go.tz http://www.meteo.go.tz

Our ref: TMA/1622

MHEWS to stakeholders within ministries and to end users in the coastal zone of Tanzania.



WISE Weather and Climate Information Services for Africa

THE UNITED REPUBLIC OF TANZANIA MINISTRY OF WORKS, TRANSPORT AND COMMUNICATION TANZANIA METEOROLOGICAL AGENCY



13th April 2018

Information to the Public: Heavy rains are expected to persist over Tanga, Dar es Salaam, Pwani, Morogoro, Lindi and Mtwara regions together with Unguja and Pemba isles

Information No.	201804-02
East Africa Time	Issued at 15:00
Category:	Warning
Valid from: Date	13 th April, 2018
Valid to: Date	16 th April, 2018
Phenomena/Hazard/Disaster	Periods of Heatry rains exceeding 50mm in 24 hours are expected

Level of Confider High: (80 Utabiri wa Hali ya Hewa wa Siku Tano na Athari Zinazoweza Kutokea Expected Ar Umetolewa Leo Tarehe 13-04-2018 Saa 09:30 Mchana na Mamlaka ya Hali ya Hewa Tanzania

Text maa 13-04-201 ya mikoa ya Tanga, Pwani, Dar es Sala Advisory: EZA KUTOKEA: KIKUBWA (Mafuriko kutokea katik Remarks: athiri jamii nzima, k Issued by Tanzania anga, Simiyu, Kigom EKANO WA KUTOKEA: WA WASTANI IGO CHA ATHARI ZINAZOWEZA KUTOKEA: KIKUBWA (Mafuriko kutu jamii nzima, kuvurugika kwa usafiri na barabara kubw ha kutokana na maji kujaa au yanayonita kwa kasi, n.k.) ledwali la Kiwango cha Uhakika Dhidi ya Kiwango cha Athari Yanavoweza Kutokea A: Angalizo T: Tahadhari Mitabara (70% an Zai Va Wastani (Kati ya 30% na 70% Alama za Ath noko va Ardh Ioto Kali: ∕₽∿ Milogo (30% au Kido Myua Kubwa A A Mafuriko A A



JAMHURI YA MUUNGANO WA TANZANIA

WIZARA YA UJENZI, UCHUKUZI NA MAWASILIANO





Α

Kubwa



ALI YA HEWA KWA SAA 24 ZIJAZO mashariki mwa nchi ya Madagascar I i va maeneo va mwa bao wa nwani ya Bahari y ka Ziwa Viktoria

i na hali ya mawingu na myua nyepesi, hususani katik a kesho hali ya mawingu na vipindi vifupi vya ju: hi, hususani ukanda wa Pwani ya Bahari ya Hind Tanzania Met Agency @tma_services

Leo tarehe 15/004/18 Hali ilivyo 1. jangwani, 2. Daraja la kisukuru, 3. Morogoro mjini, 4. Hapo nyumba kuzungukwa na maji ni Mchikichini. Tuambie kwako hali ikoje





Cyclone Kenneth

Utabiri wa Hali ya Hewa wa Siku Tano na Athari Zinazoweza Kutokea

Umetolewa Leo Tarehe 25-04-2019 Saa 09:30 Mchana na Mamlaka ya Hali ya Hewa Tanzania





Ndogo

Za Wastan

Athari

Kubwa







Feedback from Users

But the Rapid Bus Transport Project in Dar es Salaam is using the MHEWs products to plan and implement their activities. In rain season like this season they operate in three zones where they put their buses in those zones and work across the city of Dar es Salaam from three zones. This helped to reduce vulnerability to floods events. Before the MHEWs all the buses were operating from one zone at Jangwani and during rain season the Jangwani valley is normally flooded so the buses were flooded and transportation network in Dar es Salaam was disrupt by flood events.

The second scenarios is the Marine transportation, the MHEWs products are used to plan transport from Dar es Salaam port to Zanzibar or Pemba. I remember when TMA issues high wind speed warnings and high waves, the marine transporters changes their trip or sometimes they reschedule days for travel





DARAJA

Developing Anticipatory Risk Awareness and Joint Action

Purpose

Co-production of weather and climate information services, which are particularly relevant to poor urban communities in Tanzania (Dar es Salaam) and Kenya (Nairobi)

(Urban resilience...







FACTORS DRIVINING VULNERABILITY

Limited access to information on weather and climate Limited access to health services Limited access to clean and affordable water

Low income levels



WHAT ARE THE KEY ACTIVITIES?

KEY PROJECT ACTIVITIES

- 1) Initial **scoping** and analysis
- 2) Understanding and mapping the **information ecosystems** at city-wide and settlement level

26

- 3) Co-design and deployment of 2 pilot projects (1 at settlement level; 1 citywide per city)
- 4) Sharing emerging learnings and assessing potential for scale-up





NCIAVIONC

Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday
2.040	13" Sep	14* Sep	16* Sep	16 th Sep	17" Sep	18" Sep
	*			4		
	Sunny intervals	Cloudy	Cloudy	Light rain	Cloudy	Cloudy
	- *	۵.	4	- *	کے 🐔	<u> </u>
rvals	Sunny intervals	Sunny intervals	Showers	Sunny intervals	Sunny intervals	Sunny intervals
	1	1	1	4		1
cloudy	Partly cloudy	Partly cloudy	Partly cloudy	Light rain	Partly cloudy	Partly cloudy
			Pew places	Pew places		
2 - 27 C	22 - 27C	22 - 27C	22 - 26C	23 - 27C	23 - 27C	22 - 27C
13 - 14C	12 - 15C	13 - 15C	13 - 17C	12 - 170	11 - 16C	11 - 16C
Green	Green	Green	Green	Green	Green	Green

mor

antary of county weather forecast and advice to city residents for Zone 2 Cool cloudy morning, breaking into sunny intervals with a possibility of light rains on Monday. A chance of showers on Sunday afternoon.

ok for the following week: Thursday 19th September to Wednesday 25th September ibility of morning rains and afternoon showers over few places within the county.

our coding of weather conditions:



Key for symbols showing spatial rainfall distribution

- Rain likely to fall in few places (<33%)
- Я Rain likely to fall in several places (33-66%)
- <u>a</u> Rain likely to fall in most places (more than 66%)

For further information, please contact: County Director of Meteorological Services: Pascaline Chemaiyo For more information about the weather in Kenya, please visit: http://www.meteo.go.ke/

Page 2 of 2



Page 1 of 2





AT SETTLEMENT SCALE - RADIO PROGRAMMING

...

Pamoja FM Radio. The Voice of Kibera. 30 April - O

Weather Mtaani #RadaYaWeather

#TuamkePamoja

Kama wakazi mtaani, tumechukua jukumu kuzuia uwezekano wa madhara kutokana na hali ya hewa. Tumeweka mashauri na onyo mitaani kutoa taarifa kuhusu uwezekano wa madhara na maandalizi mazuri kufanyika. Tunatarajia hali itabadilika ~lan

Pamoja FM Radio. The Voice of Kibera. 14 May · 🕥

ther Mtaani

JaYaWeather

Like

zekano katika utabiri wa hali ya hewa huwa na maana ou kutoka kwa idara ya utabiri wa hali ya hewa ndani mkePamoja

ioni tunaye BW. Chris kutoka Kenya Meteorological D



Pamoja FM Radio. The Voice of Kibera. 4 June at 08:18 · 🚱

Ni ule wakati wa WEATHER MTAANI. #RadaYaWeather ikoje. #TuamkePamoja Tunauliza Je, mabadiliko ya hali ya hewa yamekuathiri vipi?



...

11 comments



DECENTRALIZATION OF CLIMATE SERVICES IN KENYA

- KMD decentralised her services on 3rd September, 2012- following the promulgation of the new constitution that created 47 developed units (counties)
- KMD deployed meteorologists (County Directors of Meteorological Services-CDMS) in 47 counties.
- Duties include providing CIS to the County

32





WISER Phase I: Decentralisation of climate information services in Western Kenya

- Through WISER support the following products were developed for 9 counties in western Kenya:
 - County downscaled weather warnings and alerts
 - County downscaled weekly by daily forecasts
 - County downscaled monthly forecasts
 - Coproduced seasonal forecast through Participatory Scenario Planning (PSP)
- (PSP) approach brings together meteorologists, local forecasters, researchers, community members (women, youth, men), local government sectors, private sector actors, local NGOs and media.
- The PSP workshops provide these actors with a common forum in which to discuss important issues affecting the local area in relation to, and going beyond, seasonal climate forecasts.
- These are stakeholders who would not normally meet, yet their collective knowledge and expertise is essential for informed and successful adaptation.
- New communication platforms:
 - Use of trained intermediaries of climate information (Agricultural extension staff; local administrators; Heads of CBOs, Farmer Groups, Faith Based Organisations) to interpret SMS early warnings and alerts and forecasts and livelihood advisories to their members and farmers
 - Use of FM local stations to pass the climate information in local language to the surrounding communities
 - Use of social media (WhatsApp, facebook, email, facebook page, cdms website)
 - press release of early warnings and alerts by CDMS
 - County Climate Information Services Plan

KMD has started rolling all the products and services in the other remaining counties

Support to ICPAC (W2-SIP)

Purpose

To improve the development, uptake and use of sub-seasonal, seasonal and longterm timescale products and services for regional applications.





Support to ICPAC (W2-SIP)

Key Expected Outputs

- Enhance the resilience and prosperity of ICPAC member states by fostering climate services and knowledge.
- ICPAC staff will gain increased skills in co-production approaches including facilitation skills for coproducing climate services with users.

Delivery Partners



IGAD Climate Prediction and Applications Centre "Fostering Climate Prediction and Applications"

IRI







International Research Institute for Climate and Society EARTH INSTITUTE | COLUMBIA UNIVERSITY





SOME OUTPUTS FROM WISER SUPPORT TO ICPAC

- Implementation of ENACTS:
- improve the availability, access and use of climate information by working directly with National Meteorological and Hydrological Services (NMHS).
- Iaunch of ENACTS in Uganda and Kenya, (2) strengthening of ENACTS in Ethiopia, Ta nzania and Rwanda by generating daily climate data (Ethiopia and Rwanda
- building capacity at ICPAC,





W2SIP Achievements – Objective 1

- Computer Hardware (HPC)equipment acquired and operationalized at NHGONG
 - NMHSs given accounts on the cluster Utilized for GHACOF53
 - Account credentials formally sent to NMHSs by ICPAC Director
 - Improved and fast access to ENACTS Maprooms, web portal
- ICPACs Prototype Consolidated Seasonal forecast system
 - Objective Consolidated Seasonal Forecast System developed and implemented beginning GHACOF52 in May 2019
 - At present average of CPT forecasts and ensemble local regression model results of 7-9 GCMs consolidated
- Developed Consensus (GHACOF51) and Objective Consolidated (GHACOF52 & 53) Outlooks



IGAD CLIMATE PREDICTION AND APPLICATIONS CENTRE



For more information visit us online at: metoffice.gov.uk/wiser #UKaidWISER in Lnked.in/wiser





THANK YOU FOR YOUR KIND ATTENTION



