

SPECIFIC SECTOR USER FEEDBACK OF COF35 AND RECOMMENDATIONS ON HOW TO USE GHACOF36 CLIMATE OUTLOOK PRODUCTS AND SERVICES

Background

The objective of this exercise was to give chance to the sectors to review previous COF (COF35) and impacts, interpret COF 36 outlook, and explore how different sectors will use COF36 for improved performance of that season at sector level. Several sectors were present during COF36 including Agriculture and Food Security, Livestock, Water, Media and DRM, Geo Spatial, among others. Below are sector-specific verifications of COF 35; and recommendations presented during COF 36 from 26 – 28 February 2014, at Imperial Botanical Beach Hotel, Entebbe, Uganda.

Water Resources Sector

Discussions relevant to the use of COF35 and current COF36 including challenges

(i) Contribution of COF35 to water sector

- In South Sudan, water harvesting infrastructure for drinking and livestock for Jonglie state and Keapota state were put in place.
- In both South Sudan and Sudan, there were floods and flash floods as was forecasted and the impacts were mitigated due to preparedness. However, there is lack of an efficient mechanism to disseminate the information to the community on time.
- In Kenya, Nzoia basin was forecasted receiving above normal rain and there was floods but the real impacts was not severe because the preparedness which was in place following the forecast augmented by real time gauging stations (open canals, raise the dikes, etc.)
- In Burundi, it was forecasted to receive above normal rain resulting to floods in Bujumbura, what is needed is near real time early warning system.
- In Tanzania, the forecast was used to plan hydropower generation in the Mtera and Pangani sub-basins. Following the Tanzania Meteorological Authority (TMA) updates, warning was issued for areas which were forecasted to receive above normal rains and this reduced the flood impacts (Dares Salaam, Singida, Kilosa, Bukoba).
- In Uganda, the forecast was used to save life in Mount Elgon (Bududa area), landslides occurred due to slope and lose soil and people were warned to move to the safe in upper areas. In Karamojong area, flood water harvesting infrastructure were put in place (dams and cattle water traps) to mitigate the drought impacts.

(ii) Response of the water sector to GHACOF36 climate outlook in enhancing resilience

For areas which are forecasted for normal to below normal (Eastern Ethiopia, Somalia, North Eastern and South Eastern Kenya, Southern Sudan, North Eastern Tanzania)

- Put up water pans for pastoral communities. Promote peace building among the communities through effective communication channels.
- Promote irrigation from the nearby rivers to support agriculture.
- In particular, Pangani basin in Tanzania expected to manage the available water more efficiently for power production and irrigation.
- Water supply from Ruvu and Wami Rivers will be closely monitored (these are sources of water supply for Dares Salaam, Kibaha and Bagamoyo)
- The target areas should explore the options of using groundwater to support irrigation, livestock watering and domestic use.

For areas forecasted to receive normal to above normal (Burundi, Rwanda, Western Tanzania, Uganda except North East, Central and Western Kenya around lake Victoria basin, most parts of South Sudan including Western Ethiopia)

- Promote water harvesting technologies (Dams, pans).
- Step up afforestation programs and early warning for the communities to reduce the possibilities of landslides (Burundi, Mt. Elgon area).
- Step up the clearing of water canals and raising dikes.
- Construction of dams and de-silting of existing ones.
- Utilize available flood early warning systems

5. Gaps and recommendations

- The updates from the climate outlook are not used to update the water resources outlook. The latter is usually lacking
- There is need to put up water pans for pastoralist communities in their indigenous land to reduce their migration and conflicts between pastoralists and farmers.
- Regular feedback of sector performance to ICPAC is lacking.
- Tradeoffs between water storage and health complications have not been given attention.

Deliberations on what can be done differently in the Agriculture Sector

ICPAC & NMHS to start producing new products; like

- i) Rainfall distribution maps for specific areas of interest

- ii) Seasonal onset and cessation maps
- iii) Maps showing length of growing season
- iv) Commodity market trade flow maps for the analogue years

What are the current information gaps/needs?

- i) Clear information on seasonal characteristics
- ii) Crop coefficients
- iii) Ground truthing, assessment and measurement of responses and impacts
- iv) Information on expected outbreaks of pests and diseases and other biotic constraints

Recommended strategies for data sourcing

- i) Formation of partnerships with climate service providers
- ii) To task ministries of Agriculture to provide crop production data
- iii) To do desk reviews to obtain crop coefficients data for major crops; Dr. Komutunga was tasked to help with this.

What new products and services can the Agro-meteorologists provide for use by other players in the agriculture sector?

- i) Suitability maps for major crops and specific varieties
- ii) Biomass productivity maps
- iii) Commodity market trade flow maps (for seeds, agro-inputs and produce)
- iv) Disease and pests surveillance maps

How do ensure resilience within the Agriculture Sector?

- i) Construction of permanent water storage structures both at home and on farm
- ii) Proper grain storage after a good season
- iii) Mass production and dissemination of quality seeds for specific farming systems
- iv) Comprehensive capacity building for farmer and agricultural extension workers and other intermediary stakeholders on how to interpret and use climate information for farm level decision making
- v) To ensure constant flow of climate related agro-pastoral advisories from climate service providers.
- vi) Identification of underground water resources in the ASALS and its exploration and supply to the communities
- vii) Diversification of the farming methods and shift to climate smart agriculture including irrigation agriculture, rearing of small livestock, apiculture, aquaculture, feed mixing, etc



- viii) Building and rehabilitation of permanent water drainage systems on farm
- ix) Rehabilitation of water towers through agro-forestry, re-afforestation, conservation of un reclaimed swamps, recovery of reclaimed swamps, etc

How the stakeholders can differently contribute to resilience building?

- i) Provision of water for production (based on crop water requirements) by responsible ministries.
- ii) Continuous provision of seasonal forecasts by the Meteorological departments at least two months before onset of that season for appropriate/timely planning.
- iii) Seed companies and Agriculture research institutes to set up experimental farms within or near meteorological stations for ground-truthing.

Emerging opportunities and challenges

- i) Improvement in the quality and timing of the forecasts
- ii) More climate information users are getting aware of the need to use climate information for planning and management of their agricultural innovations
- iii) Increased availability of market for agricultural products

Gender and Civil Society

Emerging common challenges and Solutions during the GHACOF 36

Emerging challenges

- There is delay in relaying climate information by Disaster Management/Technical people or failure by Policy implementers to disseminate Climate Information
- Community radios are not used adequately to convey climate information
- There is bureaucracy on who should announce the climate information
- Capacity building is necessary to enable people understand Climate information

Emerging gaps

- Inadequate awareness on rain water harvesting methods
- Lack of knowledge on food storage methods and theft of stored food by youth in rural granaries/attack by arsonists;
- Low coverage of weather information and accelerated charcoal burning in South Sudan
- Sensitization of people at the grass roots on climate change issues using Information in local language is required in most countries
- Inadequate climate information dissemination /funding at the Grass roots

- There is need for capacity building among Civil Society Organizations on Climate change issues

Recommendations

1. Put a proper channel in place that can be used to deliver information from the Met Department to the users, with check points and timelines for follow-up:
 - Information dissemination from the Met Department–Other Ministries –Civil Society Organizations
 - Improve the coordination of the exercise and Open the gap between Met Department and people to deliver information by allowing a follow up and feedback mechanism/timelines for dissemination/ remove the existing bureaucracies and politics in disaster prevention.
 - Policy makers should be at the forefront of fighting for the rights of the users/ ensure that the stated outcomes are realized/ make Policy makers accountable to policy providers.
 - The gender focal points should ensure that the information reaches gender groups/ pass the information to other CSOs to start dissemination.
2. Need to expand and use both Indigenous Knowledge and conventional scientific methods to forecast and improve reliability of climate information
3. Translation of the concepts of percentages, normal/below normal /above normal on local languages so that the people understand the climate information.
4. Build on strengths of using women to pass climate information- for example, in Uganda, the women are listened to better than men and so should be used to pass climate information among women and build their resilience to avoid risks. For instance, in Karamoja, the women carry out farming, while the men handle livestock. These gender roles should guide climate risk adaptation among communities
 - Reach out to women in Churches, Community women groups, community radios, as well as Cooperative Society meetings.
 - Reach out to men on social places, and youth in schools and churches.
 - Make partnerships with mobile phone companies to deliver information.
5. Need to build capacity of women to enable them understand the occurrence of climate risks as well as climate risk information, who in-turn would educate fellow women on climate risk reduction and resilience.
6. Each district to have funding to implement Pilot projects on resilience to educate the people on how climate information can be used for resilience.

7. Need to educate people on some of the indigenous and conventional food storage methods to avoid post-harvest losses and influence the youth positively to embrace good conduct among communities.
8. Climate information should be specific on boundaries for the different forecasts, bearing in mind that onset of rainfall may be different in some areas as was mentioned (for example onset of March rainfall in eastern Uganda is different from that of northern Uganda).
9. South Sudan lacks weather information in the media and the use of English is limiting information dissemination to local communities
10. Encourage more women to plant trees and build capacity of men and women on water harvesting methods.

Health Sector

Way Forward/Advisory to health sector

- The health sector in each member country to undertake a climate related disease risk profile and mapping establish focal areas where health hazards my impact
- In areas exposed to specific risk of climate related health. There is need to undertake aggressive and targeted public awareness on the risks and appropriate personal protection and response measures to enhance public resilience.
- To intensify daily active surveillance and reporting on malaria trends (Malaria THRESHOLDS) and other communicable diseases FOR EARLY DETECTION AND RESPONSE
- To ensure availability and appropriate placement of medical and vector control supplies in areas with increased risk arising from the expected climate events
- To strengthen (or institute as necessary) locally appropriate vector control interventions to interrupt and prevent transmission.
- Member countries will be expected to continuously monitor and interpret national climate updates (10-day & Monthly) for appropriate response to emerging potential health challenges.
- Ministries and organizations responsible for provision of health services are required to ensure uninterrupted service delivery in areas likely to have health emergencies.

Conclusion

Due to the non-representation from most of the member countries' health experts, there was limited understanding about health status at present. Hence there were limitations in



interpreting likely impacts at local scale. There is therefore need to ensure that at a minimum, there is at least one health from each of the Countries. This can be achieved through ICPAC sending an invitation through the Ministries of health in the region.

To generate interest on environment, health and climate issues in the region, it is proposed that a multi-disciplinary project on environment, health and climate be developed and implemented jointly. However, this should start in a small way to generate interest among policy makers and practitioners and expand progressively to the entire region.

The malaria outlook forum in past GHACOFs has suffered lack of representation of Malaria/ public health experts from all member countries. This has tended to limit the robustness of the evaluation and interpretation of the COF forecasts in the health sector in the region due to limited information on local epidemiology of climate induced health conditions from National perspectives.

In view of this, we appeal to ICPAC, respective National Meteorological and Hydrological services (NMHS) and other partners to engage and support Ministries of health in member countries to identify at least one expert from each country and be supported to participate in the Health forums during the GHACOFs.

There is need to Identify specific health risks within the region during the season at National level and initiate planning for preparedness and appropriate response. Appropriate **advocacy** and **communication** on the health challenges/climate hazards and dissemination to target organizations and populations in areas exposed to health risks should constitute one of the immediate actions of the health sector in each of the countries. Advocacy for mobilization of resources to protect populations at risk and propagating locally practicable prevention and copying mechanisms to vulnerable communities in collaboration with the national and local multi-media entities should be executed to empower exposed populations to respond appropriately.

Media Sector

How the Media intends to do things differently

The interaction by the media attending GHACOF 36 was a communication specialist, Prof. Tendo Kiwanuka helping the media to understand their critical role in reporting climate and



weather in a way that the difficult science can be understood and utilized for the good of the general population.

Prof. Kiwanuka raised fundamental issues that most journalists take for granted due to their being complacent and laid back in reportage. Prof. Kiwanuka impressed upon the media to begin from the rudiments of making a subject so complex as climate and weather to be liked and understood. He said it would be right for the media not to take the position of the experts but instead allow the experts to play their role of explaining the forecasts.

He said this can be done through putting in place panels on various shows especially radio which he said has a wider reach to far flung areas in the countryside that needs the information most. He said television stations could also arrange to have panels in their programs that allow the public to participate by asking questions directly.

This will now entail that the media plays a leading role by involving critical partners in a professional media campaign across the GHA countries. Critical partners include all NHMS, politicians, media houses, the public and all willing stakeholders. Need to look at politicians not as adversaries but as those who can help to make the message gain acceptability

Execution of the Media Campaign

The downscaled seasonal forecasts in all the eleven countries were to be the main platform of the media climate campaign. The campaign will kick off with the main policy person releasing the forecast, this could be the Minister, after this, the various media outlets arrange for panels to discuss the forecast, this will have the host who is a journalist, a meteorologist, and another person from any given sector it could be from the energy sector, agriculture or health to talk about how the forecast will affect the individual sectors

Let us focus on mostly radio to organize panel and talk shows with participation of Meteorologists, agriculturists, forestry, environmentalists, farmers, politicians and NGOs to discuss the coming season

The campaign can also involve the local administration to speak on how they feel the forecast could affect them. Involve the local chiefs they are important, by involving them, we are making him part of the campaign. Involve ordinary public to focus the discussions on the season forecast and increase credibility. Centre discussions on action points within the coming season to include seeds to plant, when to plant, the water, sanitation, diseases outbreak, post-harvest.



Other areas include infrastructure, planning and hydro power generation. Also organize a discussion for local people.

There will be need to have the individual journalists who have attended the COF to report on how they performed during the June, July, August GHACOF

Challenges that would have to be surmounted in the course of the climate media campaign

- Coordinating team requires working overdrive to ensure the campaign is in all the GHA countries.
- Enabling the CT to operate as proposed with NECJOGHA working closely with NHMS, IGAD, ICPAC and others
- Carrying out campaign in time
- Support funding to the campaign may limit regional coverage

Opportunities that will arise from the climate media campaign

- Critical focal team in place
- Willing partners including politicians.
- Public eager to receive and use the information.
- Functional media houses that are responsive to journalist's initiatives.

Recommendations

- Each country commits to endure that they take the proposed action seriously
- Document the media campaign activities as the season progresses
- Make published and broadcast material available on various websites including ICPAC, IGAD, NHMS and NECJOGHA
- Carry out a baseline study of the GHA media full blown campaign and use the baseline outcome to justify funding of a realistic sustainable media campaign covering a 5 year period.

Way Forward

Enable a full blown campaign that will gain the political goodwill and public confidence of the Climate Information Outreach in all the GHA countries. We set the pace for the global campaign.

Geospatial Technology

Challenges facing the use of geospatial technology for DRR

The members stated that the following are the main challenges facing the use of geospatial technology for Disaster Risk Reduction (DRR) in IGAD.

Data

- Lack/insufficient/expensive of data
- Ground data for calibration/validation
- Scattered data in different institution
- Inadequate/inefficient data tracking – lack of metadata
- Data standards – collection, storage, analysis etc.
- Correct information at the appropriate scale – downscaling
- Lack of data sharing mechanisms
- Outdated and sparse base maps

Hardware/software

- Need for appropriate computer systems
- Hybrid software systems
- Automation of processes
- Web portal systems
- Other equipment – navigation systems equipment (e.g. GPS), UAV

People

- Insufficient number of qualified personnel
- Need to sensitize the decision/policy makers
- Awareness raising for users
- Need for community participation – participatory mapping

Possible solutions to the challenges

Data

- Develop data sharing protocols – promote Regional and National Spatial Data Infrastructure (R/NSDI)
- Development of metadata and data tracking mechanisms to avoid duplication/double acquisition of the same by different IGAD institutions or National agencies.
- Updating base maps to support the spatial analysis in sector specific applications

Geospatial should support the various sectors

- Agriculture: models for simulating and predicting agriculture trends, supporting sustainable agriculture
- Biodiversity: understanding and monitoring
- climate: understanding, assessing, predicting, mitigating and adapting to climate variability and change
- Disasters: reducing loss of life and property (mapping elements at risk – people and properties)
- Health: environmental factors affecting health
- Water: improving water resources management
- Ecosystems: monitoring conditions and trends

Continuous capacity development for IGAD and Member States

- Development of interdisciplinary curricula in higher learning institutions (geospatial, climate, soil, social, management) to enable application of geospatial in various sectors.
- Promote multidisciplinary research and projects to enable use of geospatial in various sectors.
- Involvement of community to incorporate Indigenous Knowledge (IK)
- Incorporate geospatial capacity building in the COF process (1 or 2 days sensitization of use of geospatial technology to participants/Decision makers)
- Attachment of students/young scientists in IGAD institutions/ organizations that use geospatial technology.
- Info-graphics and animations for better communication of information e.g. 3D models of possible effects of floods.

Conclusion

After the group discussion, the UNOSAT-IGAD project, GIS Expert presented was made in a plenary session. The recommendations of the geospatial forum will also be included in the main report of the Thirty Sixth Greater Horn of Africa Climate Outlook Forum, GHCOF36.

Disaster Risk Reduction and Management (DRR)

1. Post Hyogo: Status and Way forward

ISDR:

- Need for Africa to formulate its position for the post-Hyogo framework.
- Consultations started already, still on-going and will be finalized in Abuja ARPD RR.

- The Africa position shall be adopted by African Ministers during the parallel session in Abuja
- Preliminary observations for post HFA1:
- HFA will go on (no African country has met all 5 PAs) with increased momentum by Governments with tangible commitments for DRR Investments & financing.
- 3 pillars are proposed to be added i.e. Risk prevention, reduction, strengthened resilience pathways.
- New call for voluntary commitments and approach by all stakeholders
- Strengthening of HFA review and reporting mechanisms, including a simpler and clearer reporting tool
- Strengthen partnerships between governments & stakeholders
- Strengthening local governments to take greater responsibility for DRR (in view of urbanization)
- New /revised HFA should be all inclusive (gender, youth, etc)

GHACOF 35 presentations Key Observations:

- All countries attempted to disseminate the weather forecast to different stakeholders (policy, technical, etc).
- Forecast information used for contingency planning
- Forecast enabled food projections, relief prepositioning, etc
- Forecast translated into local languages to ease dissemination to local end-users
- Use of local media incl. radios.

Challenges GHACOF 35

- Weather forecast dissemination still largely concentrated on national level than local levels.
- Still challenges regarding dissemination of weather and climate information to local communities and farmers (incl. language barrier, communication channels, etc)
- Most countries have limited / inadequate coverage of weather stations – affecting downscaling.
- Meteorology focus in fewer districts
- Structural challenges affecting implementation

Recommendations and opportunities

- COF information needs to be broken down for easy interpretation and mapping (normal, below normal, above normal – what are thresholds for each level?)

- Besides technical users, it is crucial to receive feedback on forecast usage from local user communities – track their experiences with the forecasts.
- Climate predictions assist DRM practitioners with trends useful for planning.
- ICPAC should produce long-term rainfall maps (over-lay to show long term rainfall mean to assist planning)

Recommendation to countries

- Need to move beyond stakeholder dissemination, to how they utilize the information given to them. Find mechanism to address this.
- Most countries still in ‘response mode’ and not fully adopted DDR. Countries should implement relevant DDR Legislation.
- Challenge of risk perception by communities in order to understand the cost of action or inaction.
- Need to combine scientific knowledge with community knowledge and practices.
- Encourage farmers to utilize good production years to prepare for bad years.

Resilience

- How do we support communities to live with risk?
- Identify hotspots of vulnerability and risks, and plan ahead – engaging with communities at every level
- Tap into indigenous knowledge of communities. They know and have lived with risks for long.
- Strengthen governance from below rather than top-bottom.

DM Contingency plans for the GHACOF 36.

Livelihood Protection

- Promote drought resistant crops for dry areas
- Promote environmental conservation programmes
- Mainstream gender in livelihood interventions
- Encourage food storage.
- Create awareness on vulnerability and suitable livelihood options
- Livelihood diversification.

Relief

- Early situation and needs assessments to inform timely interventions
- Stockpiling and prepositioning of relief supplies.

Water and Sanitation

- Clean, clear and de-silt drainage systems to allow water flow during flooding / heavy rains
- Preposition water treatment kits in potential flooding spots
- Regular monitoring of water resources and water quality to detect early outbreaks
- Educate the people about proper hygiene

Health

- Create awareness on water borne diseases
- Stockpiling drugs, mosquito nets, vaccination for livestock, health personnel, etc

Risk Management

- Communicate the forecast to relevant DRM institutions
- Disseminate to all stakeholders national and local
- Evaluate response for what didn't work in the previous forecast
- Activate national response plans
- Emphasize community participation in planning and implementation.
- Trigger mechanisms for local response (people take lead in preparedness and response to their risks)
- Implement mitigation actions for lessen impact
- Enhance community coping strategies

Early Recovery

- Rehabilitation of damaged infrastructure
- Livelihoods support
- Initiate community projects
- Strengthen local structures for preparedness and response

Linking relief with development

- Provide food / cash / seed for work programmes
- Provide training in DRM
- Incorporate DRR in relief / humanitarian operations

Long term component of “Ending Drought Emergencies”

- Utilize good years to prepare for bad years
- Promote conservation programmes

- Promote irrigation in dry areas
- Improve post-handling strategies to minimize loss
- Diversification of livelihoods
- Introduce resistant crop varieties.
- Upscale best practices from communities and other countries and learn from them.
- Devise systems of sharing resources from areas of plenty to areas of scarcity.

Can we utilize climate information to build, promote and strengthen resilience of communities?

Livestock Sector Report – Caroline Agosa

The following presentations were made

- Introduction to IGAD Center for pastoral areas and livestock Development (ICPALD)
- Introduction to the Livestock and pastoralism working group
- Member state report from Uganda and Sudan
- Evaluation of the past SOND conditions by partners
- Gaps and needs for downscaling RCOF products for the livestock sector

Action Areas from COF 35

- Have a climate expert at ICPALD and livestock expert at ICPAC – done at ICPALD
- Capacity building to Livestock users /sectors by ICPAC- still needed
- Assign the national focal points in the livestock policy hubs of the member states to assist in providing the livestock situation report –done
- Pursue on the development and adoption of the integrated flood-drought pastoralist livelihood model. Ongoing
- The livestock expert/Agro climatologist shall be assigned in the national Met department to help in down scaling relevant to livestock – not done

Gaps and needs

- Data
- Tools
- Communication
- Climate change issues
- Research in slow onset events and loss and damage

Challenges

- Sudan/ Somalia / Eritrea are unable to use certain software due to sanctions



- Fundraising for the same countries limiting cross border work
- Data sharing and cost
- Cultural challenges when developing tools
- Regular feedback from researchers to farmers to foster trust

Priorities

- Tools
- Build a regional capacity on Livestock early warning system
- Upscaling the existing best practices that exist e.g. The EA_GLEWS
- Mapping similar programs that can be sources of data and information

Data

- Improve data collection in the ASALS
- Livestock data (more parameters e.g calving, mortality rates off-takes, also temporal scale from 10yrs to at least annual)
- Climate data (more meteorological stations needed in the ASALS)
- Market data
- Improve on data sharing modalities

Communication

- Use of existing traditional structures in dissemination
- Getting right representation from member states to attend the GHACOF
- Link up the livestock focal points at the livestock hubs with their respective national meteorological services. NMHS to be informed who the focal persons are.
- NMHS to break the outlook based on the analogue years and provide analogue year performance and impacts and best practice
- The GHACOF should have the strongest representation from infrastructure, agriculture, water and health. MS should take this seriously and sponsor representatives
- Regional climate information to inform policies that govern trans-boundary animal movements. (protocol) -Proposed best practices of improving the use of RCOF's products
- Designing RCOF's products with the community
- Setting up a e-dialogue forum for the Livestock and pastoralism working group
- For pastoralists the region looks 'normal' but we await the downscaled national maps for



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