Report – 16906.14

Roundtable Event on strengthening development of early warning systems in Africa

Background

From the 20th – 21st of May the UN Headquarters in Africa, Nairobi hosted the first in what is now expected to become a series of Africa-focused Early Warning System (EWS) 'Roundtables'. Participants from development banks, agencies and meteorological services assembled to share information on their EWS activities, to learn lessons from similar work elsewhere and to identify key entry points to catalyse greater programme coordination across Africa. Chaired by WMO and hosted by UNEP and UNDP, this roundtable provided an informal opportunity to raise awareness of the myriad of programmes focussing on, or supporting, the use of climate information and early warning systems across the continent.

Amongst participants, it was clearly recognised that any journey towards greater coordination and collaboration will be long and challenging. Dr Elena Manaenkova, WMO Assistant Secretary General, who kindly chaired the Workshop remarked

'*The workshop is timely, especially in the light of the need to demonstrate a one UN approach.*'

While 'Dr Ibrahim Thiaw, Deputy Executive Director, UNEP commented

"*There is a need for one platform, one entry point for coordination to improve prevention and response. This will assist countries in preventing and mitigating against disasters'.*

'Communications has to have a talking and listening focus – it is ideal to use existing frameworks rather than creating a new one. Science needs to work for the people – how can we speak the same language? We need to understand our strengths and complement each other,…., look at synergies and mechanisms'

Boni Biagini, the UNDP CIRDA project manager further added

"All vulnerable developing countries, and especially African LDCs, need reliable weather and climate data to develop short and long-term adaptation plans. Our UNDP CIRDA Programme is committed to support 11 LDCs to achieve this goal, in close collaboration with WMO and national Met offices in Africa."

Key findings/discussions.

Day 1: *Chair Dr. Elena Manaenkova, WMO ASG*

- The deputy executive director of UNEP opened the workshop and highlighted the urgent need to coordinate between agencies and to develop one EWS platform in each country to be more efficient. This was followed by comments from WMO ASG that there are indeed many different projects being undertaken by WMO, some involving data and modeling, whilst others (GFCS) demonstrate weather/climate services through pilot projects. It was noted that the workshop is timely, especially in light of the need to **demonstrate a one UN approach**.
- The UNEP chief scientist highlighted that statistics (demography, livelihood, vulnerability information) from many countries are currently not used for the development of warnings etc. UNEP is encouraging the flow of data through **UNEP-live, developing sensor web** technology (including air quality and environmental monitoring). There also needs to be a demonstrated **demand for data** and not just a top down approach to data provision.
- The WMO director of weather and disaster services gave an overview of WMO's work in this field. Afterwards there was a discussion highlighting:
    - the need to move from **data secrecy to an open source view of data** to encourage innovation and and sharing. Questions were asked if this was affordable, particularly in Africa where weather/climate services are limited. Whilst data is a public good, sustainability is key and both aspects are important when discussing **public private partnerships**;
    - **AMCOMET** (African Ministerial Committee on Meteorology) as an important political body to ensure coordination;
    - Whilst investments in infrastructure are very visible, **the message system is arguably more important**;
    - WFP commented that lots of information is not translated e.g. GHACOF and food security;
    - UNESCO asked what is the business model when citizens have the right to data;
    - Both the UN charter (for disasters) and risk based forecasting were suggested as potential ways in which to move towards useable information in a coordinated manner.
- UNDP-GEF presented developments through the Climate Information for resilient development and adaptation to climate change in Africa (CIRDA) project, provoking many questions and interest:
    - UNDP-GEF highlighted that efforts would be focused on: access to reliable data and technology transfer; data interpretation and processing; identification of end users; integration of data into adaptation planning and actions, including National Adaptation Plans (NAPs), EWS, and resilient farming techniques;
    - It was suggested to identify end users first and work backwards in order to find the right technologies, data and means of communication that would make these data useful to people;
    - An innovative aspect that raised lots of attention was a strong private sector strategy to allow large and small companies to get more engaged in African LDCs and ensure the financial sustainability of the initiative;
    - There was a discussion on the importance of forecast timing, skill and accuracy;
    - The insurance industry was noted as an example of a sector which could be interested in developments e.g. risk mapping using data provided by UNOSAT;
- UNISDR explained some of the advances through the GHACOF process e.g. discussions on local impacts which are not necessarily data focused. Urban floods was highlighted as a difficult area to forecast but brings in the private sector (20% disaster losses are public, 80% private). Explained the no regret approach to using weather/climate forecasts at different lead times. Thresholds are useful e.g. 80mm causes floods in Abijan but not in DRC. Highlighted that recent trends are not always consistent with projections making it difficult to convince policy makers to act on this information.
- UNESCO showed good examples of using crowdsourcing in Mathare slums (Nairobi) to collect data. Advocacy was needed to convince people to take part and interestingly people mostly trusted information through social media and not necessarily through formal or governmental channels.
- UNEP presented information on both the CLIMWARN and GEF (Gambia) projects. CLIMWARN has an ecosystem based DRR focus and conflicts as a focus for disasters. DEWA (CLIMWARN) focuses on Kenya, Ghana, Burkina Faso (through CONASUR) and Kogi state (Nigeria). Working with communities to review best practices and develop decision support tools. The GEF unit has 9 CI/EWS projects in Africa, including Comoros and Gambia (jointly with UNDP). The PROVIA initiative also provides research on vulnerability and impact assessments.
- The WMO regional representative for east and southern Africa highlighted:
    - the mobile weather alert (MWA) project for lake victoria (Tanzania and Uganda) which provided forecasts for fishermen (Ssesse islands) and farmers (Kasese).
    - The Tigray regional NMA in Ethiopia is also involved in similar agromet work.
    - GFCS is working in Burkina faso, Mali, Niger, Senegal and Chad.
    - There is the regional IGAD HYCOS hydrological project in east Africa and the SWFDP severe weather demonstration project.

    - The METAGRI agromet project working in 17 west African countries has trained 5700 farmers and distributed 3000 raingauges (with resowing rates reduced by 35% and yields increased by 20%).
    - Future projects planned with FAO on farmer field schools and IFRC on EWS in Lake Victoria region.
- IFRC highlighted that it was better to send CI/EWS information earlier even it is not perfect – better to have something for early warning than nothing at all. Working in Kenya, Uganda (nutrition + water), Burundi (floods), Nairobi, Addis Ababa and Dar es Salaam (urban DRR).
    - Uganda preparedness funds activated by weather alert. SOPs developed jointly by institutions;
    - higher probability of forecasts => release more funds;
    - Lake victoria project with WMO, work with telecoms operator to provide forecasts;
    - Using SMS technology to provide targeted forecasts/advice. Provided through telecoms operator for free – part of social responsibility. 2-way data can be collected on developing crises. Need partner the telecoms operator can trust not to abuse system. Rolling out in Sierra Leone (2013), Kenya Rwanda and Burundi (2014), Tanzania and Uganda (2015). 90+% success in Haiti – many SMS are passed on.
- Kenya Meteorological Services and National Drought Authority highlighted:
    - Decision support tools at community level to bridge gap between forecast providers and users
    - Drought EWS use biophysical/environmental/rural economy/human welfare indicators for advance warning.
    - Household surveys across 320 sentinel sites and 23 counties;
    - Would like to use more climate information e.g. from satellites (RFE) and drought indices (SPI);
    - Bulletins at www.ndma.go.ke
    - Challenges: remote sensing crops, training EW officers, access remote sensing products;
- ICPAC highlighted the role it plays as a regional training and coordination centre. It produces monthly and seasonal forecasts as well as applying those forecasts to assess impacts on different sectors e.g. water and agriculture. It currently only receives data from 133 synoptic stations (out of a possible 600, including agromet and AWS). It is also helping to implement the IGAD HYCOS project and develop the climsoft database (for use by African met services for archiving their data) – www.wmo.int/cpdb .
- Two presentations (BBC media and CCAFS climate services) also highlighted the role of communications between information providers and users. There is a need to make sure the language is simple and direct. Games are a useful tool to communicate concepts of probability and risk and for communities to engage with the forecast information when making decisions.

Day 2: *Chair Boni Biagini, UNDP-GEF CIRDA*

- The second day, chaired by UNDP-GEF, was dedicated to small working group activities. The main themes discussed were: communication, technologies, training and the role of private sector. The need to include new technologies that are cheaper and avoid large O&M costs were highlighted, as was the need to include a mix of technologies to address both short term weather related information and long term climate monitoring/forecasts. It was also clear that training activities undertaken by projects (e.g. CIRDA) should be coordinated with those already being undertaken by WMO and ICPAC, offering the opportunity to partner and share the costs of many of these activities. Participants made the commitment to share information and agreed that the Adaptation learning mechanism (ALM) and CIRDA projects at UNDP could help gather this information together and keep it updated. UNEP offered to set up a community of practise website to help initially coordinate information exchange. WMO also shared the information about an upcoming database on CI/EWS national inventories in Africa that will be made available as soon as it is ready.
- The group of experts who participated in the roundtable and follow up discussion agreed to be part of the Technical Advisory Group (TAG) of the CIRDA project and expressed their availability to continue to work with UNDP on Climate Information for African LDCs.
- Tanzania and Malawi were highlighted as key countries in which to coordinate activities (between UNDP, WMO(GFCS), UKMO). It was agreed that project managers and UNDP CO would be invited to all planning workshops.

The roundtable was useful for participants, who noted that it provided a forum at which different agencies could discuss key points in a free and open manner. The following discussion points were noted as particularly relevent:

- *Collaboration. – no one organisation can provide the level of service required to a multi-sector / multi-cultural / multi-disciplinary environment;*
- *Consistency of any warning 'message' is vital - one cohesive voice / one 'traceable' source;*
- *Impact based information holds the key - using language / terminology of the decision maker to enable action to be taken and mitigation planned;*
- *To enable truly sustainable climate EWS we need to engage the private sector.*

The organisers would like to thank all who participated for their interesting and invaluable contribution to this first roundtable event. As with all first endeavours we have a lot of work to do to make this roundtable an informative and effective tool for coordination and knowledge sharing, and we welcome any feedback regarding the event itself and/or this document. Please do not hesitate to contact us and we will make sure your feedback is incorporated in our plans

for the next meeting and are shared with the wider group for consideration. If you were not able to participate and would like to share details of your programme, or learn more about the event itself please email Nyree Pinder (nyree.pinder@metoffice.gov.uk).

In the Dropbox Folder (link below) we've stored all of the notes, presentations and feedback from the roundtable, this includes summaries from WMO, UNDP, UNEP and the Met Office.
Dropbox: https://www.dropbox.com/sh/f4v3vgagpz2aftl/AABkr2ojJT7CY8pimTXzsNb2a

In addition to the Dropbox folder we've summarised some of the key points from the roundtable below.

Key findings (topics for ongoing discussions through online fora and consideration for the next meeting):

WHAT	WHO	WHY	HOW?
1) Communications – specifically SMS alerts	IFRC, UNDP, UNEP, WMO, NDMA and KMS	All these organisations have used, are researching best practice, or are planning to use SMS messaging for community reach/response to early warning. There needs to be consistency in the form of these messages to ensure effective communication/impact. Private sector engagement to support SMS messaging is required	How can we better coordinate our programmes to ensure a more consistent approach to SMS messaging (and the media as a whole) for both public and private sector? How can we combine our efforts to approach the private sector in a coherent and effective way? How does it benefit them and what will their return on investment be? Sharing of the results from the UNEP CLIM-WARN project will be relevant as it will provide research to inform decisions on communications type Sharing of BBC Media Action knowledge in this sector for a coordinated approach to 'audience'. Sharing of CCAFS and IFRC's (and other humanitarian agencies) experience in community engagement.
2) Observations & IT Equipment	ICPAC are being funded by the EU and are working with WMO to install over 100 Hydromet stations regionally (East Africa) by March 2015 UNEP-GEF and UNDP-GEF programmes have similar aims and will be installing equipment also within the next year in 11	Equipment procurement continues to happen when there is already equipment, which is not being maintained. Existing infrastructure needs to be put to better use. Equipment is sometimes provided but is not compatible with existing working methods and/or equipment at the National Met Services and	How can we better coordinate equipment provision to NHMS and other agencies regionally to improve observations across the region? How can we make sure we don't provide equipment which will not be maintained due to resource and/or capacity issues? Is it possible to standardise our approach to equipment, IT and capacity development in

	African countries.	associated agencies.	this area?
3) DATA – open source, affordable or secret? Data Rescue	UNEP - UNEP Live developing sensor web UNESCO – free data for all NMHSs – rely on selling data for income WMO & DFID, UNDP – data rescue	Open data is always a contentious issue. Should it be free or affordable? Is it about the data or the added value service, which translates the data so responders are able to understand relevance to their needs? A growing area of concern is also the number of platforms which already exist and do not communicate with each other. Data rescue is recognised as an issue and forms part of plans for WMO, DFID and UNDP for Tanzania and the wider region. KMS recommends Climsoft for a standardised approach.	How can we make data more manageable? How can we use data from the past to inform the future and better utilise regional or international resources that are freely available ? How can capacity development be used to increase understanding that data can be free but services will always be required to reliably inform? And to improve understanding and use of existing data? How can we connect this discussion with the wider 'data/GIS' community to ensure multiple data platforms don't all perform the same function? How can we make sure all digitisation work is performed in the same/standardised way for ease of use within and between met services in the region?
4) Private Sector	AllUNDP, WMO, … we should spell them all out	Need to develop revenue streams for long term sustainability of EWS e.g. public/private partnerships. Telecoms companies are central to both data collection (e.g. from AWS) and communicating warnings/advisories e.g. via SMS Resistance of met services to release data to private companies Many key sectors rely on climate/meterological data e.g. insurance, hydropower, agriculture etc	How can we approach the private sector in a coordinated fashion and share information for maximum benefit? How can we encourage/build capacity for met services to deliver 'services' to the private sector not just 'sell data'? How can we engage the private sector in programmes to ensure their requirements are considered, in order to encourage sustainability beyond the life of a development programme?

Follow up actions:

To encourage better awareness and coordination of EWS investments in future, it is recommended that roundtables continue periodically in the future and that the stakeholders continue online discussions in the interim.

- To support coordination at a country level WMO have already organised an 'expanded project delivery team' meeting for the GFCS project in Tanzania to include UNDP-GEF and the Met Office to identify synergies between the activity plans for the three projects. Similar coordination activities will take place in Malawi between WMO GFCS and UNDP-GEF projects.
  Lead agencies: WMO

- To organise a follow up meeting to discuss issues as outlined above.
  Proposed dates: tbc
  Proposed venue: Cape Town or existing meeting venue
  Proposed hosts: UNEP, UNDP & WMO tbc
  Agenda: to be in line with key issues outlined above.
  NB/ Met Office to share their events list for the rest of the year to explore opportunities to tag a meeting to an existing event. UNOSAT note the potential to share a week with their meeting on data sharing/GIS systems for Africa.
  Lead agencies: UNDP, UNEP & the Met Office (with input from WMO)

- A *temporary* platform (in the form of Dropbox initially then with UNEP's Community of Practice) will be created to share documents from this 1st EWS roundtable and any other information. Especially for best practice examples to inform programme management. We will also explore if there are other platforms to which we can add our information. WMO's country profile website will be shared as soon it is launched, by end of June – there is potential this website could provide a home for our roundtable information and links to other programme activities in the different countries.
  Lead agencies: ***UNEP, UNDP & WMO***

- Knowledge inventory of programmes for EWS that exist across Africa at the moment – Met Office to share their information as a basis for others to add to.
  Lead agencies: Met Office (to start) and all

- Participants list to be updated to include committed individuals to the roundtable. Invitations to join the online resources to be sent to those who were not in attendance this time to provide a point of contact for the next event.
  Lead agencies*: *UNDP, UNEP & Met Office

- Sharing of best practices: case studies of previous programmes for reference ie: GFCS implementation plan, any research material, evaluation studies etc.

Lead agencies: All

Lessons Learnt:

In order for the roundtables to be useful it is important to have the following:

1) With so many pressing agenda items, our next roundtable will attempt to agree the key themes ahead of the event;

2) The level of interest in the workshop, especially outside of the direct attendees, means that we'll need to ensure the next roundtable is scheduled to either complement existing meetings / conferences or to find a date in the calendar which enables all interested parties to attend;

3) We want to build on the energy and expertise shown in the informal discussion piece on Day 2 of the Nairobi roundtable. Therefore our next roundtable will focus around a few key note speakers who will set the scene, thus enabling more time to be invested in the informal discussion sessions;

4) The meeting should be extended to the wider humanitarian community in the region (i.e.: Care International, Oxfam, MSF etc.) to include their vast experience on measures to strengthen capacity in communities for early action.