Development of Kenya's Decentralised Climate Service through the Ada Consortium

A Summary Briefing Note

Summary

The Ada Consortium has supported Kenya Meteorological Service (KMS) to develop an approach to decentralised service delivery, and to begin to develop and deliver elements of it in the Ada focus counties, particularly in Kitui and Makueni. The approach is based around supporting County Directors of Meteorology (CDMs) to engage with County Administrations, the production of County Climate Information Plans, and new ways of communicating climate information, particularly through networks of climate intermediaries, mobile technology and local radio stations. A Strategy for Decentralisation and Operations Manual for CDMs, currently under development, aim to institutionalise many of the elements developed. Significant progress has been made in designing the strategy and developing the key areas of focus. However, further support is needed to ensure that the climate services set out in the County CIS plans are made operational in all focus Ada Counties and that the approaches are embedded within KMS and County systems.

Introduction

The Ada Consortium is one component of the Strengthening Adaption and Resilience to Climate Change in Kenya (Plus) Project (StARK+) financially supported by the UK Department for International Development (DFID).

The Ada Consortium is tasked with introducing a replicable 'combined approach' to adaption in in the arid and semi arid areas of Kenya specifically counties of Isiolo, Wajir, Garissa, Kitui and Makueni. The 'combined approach' consists of establishment of county level adaptation funds; integration of weather and climate information and resilience assessment tools into county and community planning; establishment of adaptation planning committees and a robust monitoring, evaluation and learning framework.

A key component of the initiative has been the provision of better Climate Information Services (CIS) in the Ada target Counties. Over the past 18 months this has allowed Kenya Meteorological Service (KMS), with support from the Met Office, to develop a decentralised approach to service delivery, in response to and as part of the overall devolution of government to the forty seven new County Administrations across Kenya.

Funding through the Ada Consortium has provided support to developing this approach and piloting some of its key elements, which are now informing the ongoing preparation of the KMS Strategic Plan for Decentralisation. This work has the overall aim of providing more reliable, timely and relevant services to users – from individuals through to planners and decision makers in the Country Administrations.

Climate Information Service Principles

A key initial task of the CIS team and the Consortium more widely was to develop an agreed set of 'CIS principles'. This process aimed to clarify some of the key issues around CIS within the Consortium and provide focus to the development of the programme. The principles are as follows:

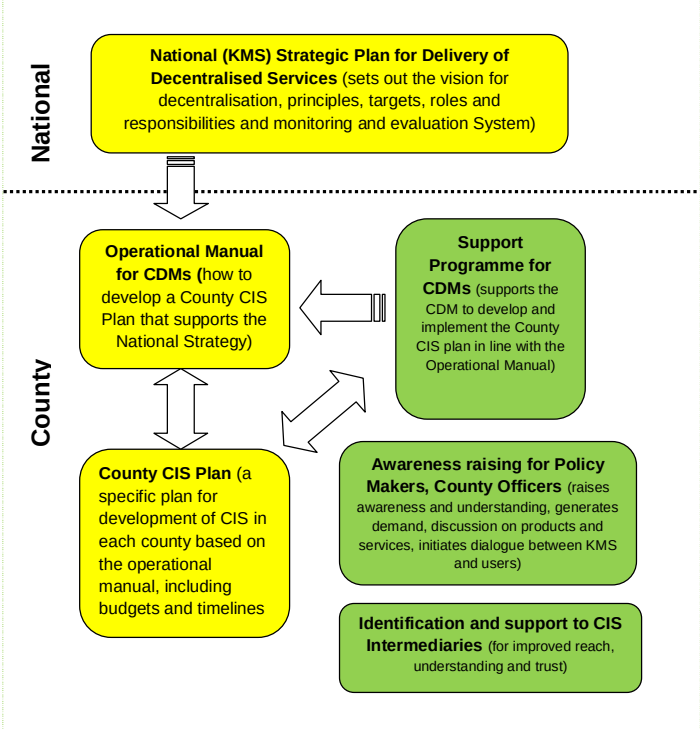
- Production of reliable probabilistic information (ignoring probabilistic nature of information will lead to a potential loss of trust);
- Understanding and using probabilistic and uncertain information (ensuring good understanding of forecast uncertainty by users to improve uptake);
- Relevant information (timely CIS delivery, tailored to specific users);
- Appropriate access to CIS and two way dialogue (increasing access using appropriate dissemination channels, or developing new ones where non exists);
- Trust (gained through combining all of the above while working together to share knowledge with local communities in a participatory manner) and
- Building the capacity of the NMHS and 'CIS intermediaries' (and others).

Development of an Approach for Decentralised Service Provision

A key focus of the Ada Consortium is to develop replicable approaches that can be institutionalised within the context of devolution and decentralisation. In terms of CIS, this has meant that considerable efforts be made by KMS, with Consortium support, to develop a workable approach to delivering decentralised services in the Counties. This represents a significant institutional and organisational change and new technical challenges.

With Ada Consortium support and through process of discussion and engagement between the Government of Kenya (GoK), the Met Office and the Consortium, KMS developed a framework for decentralised service provision. This consists of a number of interrelated elements, which, when working together, aim to provide the basis for delivering a wider and more relevant range of services in the Counties. Key to this process was development of the agreed roles and responsibilities for KMS centrally and at the County level and thus for the CDMs. This is shown in **Figure 1** below.

Figure 1 – Framework for Decentralised Service Provision



This framework is centred around (a) the role and capacity of the County Directors of Meteorology (CDMs) who are now posted in all the 47 counties, and (b) a focus on the provision of reliable, timely and relevant services that meet the needs of users in accordance with the CIS principles. Financial support through the Ada Consortium, KMS resources and other funding has allowed each of these elements to be developed. Whilst this work is still ongoing, KMS management has adopted some of its aspects and now form a basis for the future scale up of its services across Kenya, and is informing key strategic plans.

Summary of Progress to Date

To date, Ada Consortium support has focussed on the following key areas to support implementation of the framework.

1. Development of the role of the CDM to enable them to develop and deliver locally relevant services, and engage effectively with the County Administrations and other stakeholders.

   Based on the agreed roles and responsibilities of the CDMs, a new programme of training specifically for CDMs has been developed collaboratively between the KMS's Institute of Meteorological Training and Research (IMTR) and the Met Office and delivered to 11 CDMs, in order for them to understand their new roles and responsibilities and give them the tools to plan and develop services at the county level through production of County CIS Plans.

   The course development followed a training needs analysis and is based around six core modules relating to (a) devolution and decentralisation (b) climate and weather data, observations, management and telecommunications (c) climate change, mitigation and adaptation (d) the product development cycle (e) administration, finance and resource management and (f) resource management.

   The training material is now held within IMTR, meaning it can be rolled out across Kenya as further resources allow. A pilot initiative is planned, under separate funding, to develop some of the modules into an online resource with a view to developing more flexible and efficient methods of delivery of the content. Opportunities also exist in future for IMTR to offer similar training in the region, as part of its role as a World Meteorological Organisation (WMO) Regional Training Centre.

   In addition to the training, CDM offices have been provided with furniture, equipment and IT in the five focus counties allowing the officers to carry out their duties efficiently

2. Preparation of County Climate Information Services Plans, setting out how services will be developed and delivered in each county, including 1, 3 and 5 year plans to focus implementation.

   County CIS plans aim to set out an agreed way forward for development of CIS in each County, which can then be supported through different funding streams, including KMS and the County Administrations. The framework, structure and process for County CIS plans was developed and piloted in Kitui County and the process has now been formally adopted within KMS, with an agreed template and inclusion within the responsibilities of CDMs. Supported by this and the CDM training, plans are either complete or being prepared in the five Ada focus Counties and will form the basis for development of CIS over the coming

years. The approach will provide a basis for rolling out in other counties across Kenya at a future date and opportunities have been identified to inform similar work in Tanzania.

3. Developing a Communications Strategy for the Target Counties.

As part of the development of the County CIS Plans, a communication strategy for each County was produced. Whilst the detail differs from county to county, the two main communications channels identified were (a) the dissemination of climate information by SMS through a network of climate intermediaries (see below) and (b) better utilisation of local FM radio stations, in order to ensure that services are accessible to the entire population in each project County. KMS is starting to implement some of these recommendations, working with stakeholders, government officials, respected and influential individuals and local media houses, which will receive weather information and share it through their existing networks and partners.

In addition to the SMS and radio channels, the Ada Consortium has promoted the use and extension of 'County Climate Outlook Forums' (which to date have been supported under separate funding) by formalising these as part of the seasonal forecast dissemination process and supporting them though provision of better downscaled forecast information. County Climate Outlook Forums are well supported by CDMs and allow them to disseminate the forecast at the County Administration level and for the development of sectoral advisories for the season ahead.

SMS service to CIS intermediaries is operational in Kitui and Makueni through a contract with a private sector provider providing the SMS technology and platform. The system developed is an extremely versatile and powerful way of communicating information at relatively low cost and provides a basis for many other opportunities for further development of SMS and mobile services, including premium 'paid for' products aimed at generating commercial revenue. KMS management has officially adopted the SMS service as the way to reach citizens and want it upscaled to cover all 47 counties.

Radio remains the most important communication channel for disseminating news and information quickly to the rural Kenya. Although there is progress still to be made, KMS is now providing tailored climate information to selected radio stations through an improved communication system describe separately in the communication brief (funded separately under the World Meteorological Organization Voluntary Cooperation Programme (WMO VCP programme). Information is broadcast in the local language translated from the English bulletin provided by KMS.

4. Development of the concept of 'climate intermediaries' to communicate climate information and provide feedback on the quality and type of services required, including a 'training of trainer' course.

The concept of 'climate intermediaries' has been developed. Intermediaries will receive forecasts through SMS and work with the CDM to provide a network for dissemination of information and feedback on the services provided. Intermediaries were selected from across institutions and agencies with existing extensive reach including County Administrations and the Ministries of Agriculture, Livestock and Cooperation, as well as religious and community leaders and NGOs. The aim is to establish a network of approximately one intermediary for every 500 people in each county. Development of the

intermediary network has commenced in Kitui and Makueni and will be extended to other Counties as resources allow.

As part of the intermediary approach, the IMTR and Ada partners have developed a 2.5 day training of trainers (ToT) course for intermediaries designed to enable participants to (a) receive appreciate and effectively communicate climate information in a language and format that can be easily understood and (b) support appropriate application of climate information and provide feedback for its use and benefits. Trainers who have received the ToT training use the training and a package of tailored materials to deliver a half day training to 40 'secondary' intermediaries. To date, primary and secondary intermediary training has taken place in Kitui and Makueni, with more secondary training planned in August / September 2015. In the evaluation of the training over 95% of participants felt prepared to undertaken their role as intermediaries. The intermediaries approach and training undertaken, whilst needed further refinement, has potential for scale up nationally and has also attracted considerable interest elsewhere, including a WMO CCAFS sponsored project in Tanzania. Link-http://ccafs.cgiar.org/blog/strengthening-availablity-and-use-climate-services-africa#.VMZVRCzRbHs

5. Improvements to forecasting techniques and tools, centrally and in the counties to provide relevant downscaled information

A collaborative programme of work is being undertaken between KMS and Met Office around seasonal forecasting which aims to increase the uptake of information at the County level through improvements in the lead-time and accuracy of the forecasts. The work has to date (a) addressed streamlining of the seasonal forecast production process (b) reassessed the forecast zones in Kenya (c) compared the rainy season onset forecast method and (d) development and training on the FACT-FIT software to enable CDMs to downscale the National seasonal forecast to the county level. Whilst there is further analysis and verification required before any of the new techniques become operational, early indications suggest that the new forecast methodology could result in an increased lead time of 3 weeks for the seasonal forecast, thus allowing considerably more time and flexibility in planning for the coming season. The downscaling of the forecast using FACT-FIT will allow KMS and CDMs to provide more relevant information for development of sector advisories at the County level.

More generally on forecasting aspects, the increased demand for better CIS from the counties will in future result in a significant increase in the numbers of products to be produced and a need for greater detail and accuracy. This will require changes within the KMS forecasting team around working practices, operating procedures, data and modelling, automation of processes and continuing professional development, supported by financial investment. This is an identified barrier to expansion of services and KMS and Met Office are currently seeking support to undertake a detailed scoping study to map out a way forward to address these issues which would guide a programme of modernisation.

6. Development of KMS Strategic Plan for Decentralisation and Operational Manual.

Part funded by though the Ada Consortium and partly through the DFID IFUSE framework, KMS (supported by the Met Office) has developed drafts of their Strategic Plan for Decentralisation and Operations Manual for CDMs to provide a framework for development of services and provide clear guidance for roles and responsibilities at the county level.

These documents, once complete, aim to institutionalise many of the approaches developed under the Ada Consortium. It is anticipated that the draft documents will be complete in late 2015 and that this will attract increased funding from KMS and other sources to support implementation. These documents will also be a basis of KMS to solicit support from developing partners.

7. Integration of the Climate Information and the CAF Process and in Planning in the County Administrations.

Although still an area for further development, working as the Ada Consortium has allowed a better integration of climate information into adaptation planning and implementation than would have been the case through separate parallel initiatives. This is apparent in two main areas (a) in integrating CIS into the participatory approaches that have been used to set up the CAF structures and processes (particularly in Kitui and Makueni) and (b) in the identification of what opportunities there are and the information is required to integrate CIS with planning and budgeting at the County level and in the design of CAF investments identified by Ward Committees. Initial assessments into incorporating CIS into the CAF process and into county level decision making have been undertaken, and elements of CIS have been incorporated into the process of setting up the CAF in Kitui and Makueni. There are opportunities to further develop and consolidate the approaches that are emerging within the Consortium which would have wide application for scale up in Kenya but also across numerous other initiatives internationally.

8. Improvement of Observations Network

The Ada Consortium has supported the procurement of meteorological observations equipment for the focus Counties which will improve the collection of weather data and support improvement of forecasts for the counties. Through the Consortium, 6 automatic weather stations, 15 automatic rain gauges, and 30 manual rain gauges been procured. The observations equipment is currently awaiting installation under a separate KMS funded contract. The contract will be implemented in the financial year (2015/16).

9. Summary of Current Progress and Future Requirements

Overall progress in the Ada focus counties of Kitui, Makueni, Isiolo, Wajir and Garissa, has differed depending on the capacity available, and as the County Administrations evolve. Most progress has been made in Kitui and Makueni where a limited climate information service started in September 2014 which will be expanded in 2015. County CIS plans are now being developed in all counties which will then form the basis for future development of the climate services and attracting funding for implementation.

The Ada Consortium has supported KMS in developing its approach to delivering decentralised services in the counties – which represents a wide ranging institutional and organisational change. Significant progress has been made in designing the strategy and identifying the key areas of focus, however considerable further effort and support will be required to consolidate the work to date, ensure institutionalisation and position KMS to scale up improved services nationwide.

Within County Administrations there is increasingly good 'buy in' for the new arrangements but the role of CDMs is nascent and our experiences have shown that engagement of CDMs at the County level is not necessarily quick or easy, particularly as KMS services are decentralised, rather than devolved. Further support is needed to ensure that a climate service developed and set out in the County CIS plans are made operational in all focus Ada Counties so that (a) the approach can be further streamlined (b) costs and benefits can be better quantified (c) value demonstrated and (d) the approaches embedded within KMS and County Administrations.

This will need further external support over the coming two years, during which time sustainable funding mechanisms can be developed. Funding streams may be through KMS or County Administration budgets, or through development of commercial services at KMS that can generate revenue to support a 'free to user' public weather service.

10. Influence outside the Ada Consortium

The approaches developed within the Ada Consortium have generated considerable interest elsewhere and have potential for informing the development of similar initiatives. CIS elements of the Consortium work have been shared in the Thirty Eighth Greater Horn of Africa Climate Outlook Forum (GHACOF38) which was convened from 25-26 August 2014 at Addis Ababa, Ethiopia and 23-25 February 2015 Nairobi, Kenya , the CCDA IV conference on 8th to 10th October 2014 held in Marrakech, Morocco, and at a WMO **Fifth Eastern Africa Regional Training On Severe Weather Forecasting and Warning Services** Project that took place in Kigali, 17 - 21 November 2014**.** Components of the intermediary training have also been employed within a WMO GFCS pilot intermediary training in Tanzania and are proposed for inclusion within a CCAFS guide for training CIS intermediaries to reach farmers. A poster on the initiative was also presented at the American Geophysics Union conference in San Francisco in December 2014. The World Meteorological Organisation has been actively involved with their East and Southern African representative attending a number of events.

11. CIS Briefing note Series

This note summarises some of the main achievements and progress to date relating to the CIS elements of the Ada Consortium work. Further details on individual aspects can be found in separate Briefing Notes covering:

i. Development of Seasonal Forecast Improvements;
ii. Developing County Climate Information Services Plans;
iii. Training Climate Information Service Intermediaries;
iv. CDM Training Course Development and Delivery;
v. Communications strategy;
vi. Improving Understanding and Use of Climate Information Services;
vii. Procurement of observations equipment;
viii. Development of strategic plan for decentralisation, and
ix. CIS baseline and approach to Monitoring and Evaluation.

The Briefing Note series will be updated and expanded over the coming months.