

FCFA webinar: African demand for weather and climate services, and business models for private sector engagement

Questions and answers

No.	Questions	Answers
1	I believe we have seen good progress in climate services for agricultural production. But we do need much more in terms of climate services for the health sector. Any views on how to achieve cooperation between Met services and ministries of health?	Live answered
2	In regions with defective weather data collection due to lack of instrumentation, how to decide whether to fix/buy new equipment for manual collection of weather data or convert to automated weather station system?	You need to consider a system solution based on a good assessment of the local conditions, available technical competence, communications, etc. The NMHS should be in the position to enquire assistance from WMO in the evaluation and design of the observing system to ensure also its compliance with the international standards.
3	Do you think it's easier to assure long term sustainability of manual or automated weather data? And how to assure it? (Manually collected data needs daily observations and a lot of simple material, such as paper for heliographer, but AWS may need a less frequent but more complex maintenance).	There is no 100% manual or 100% automatic system for the weather observing data. For sustainability, the most important is to ensure human and financial resource to carry out regular maintenance and calibration as required by the WMO standard and recommended practices. A common failure in development projects has been to limit the scope just to procurement of equipment. Every project should take care about the running cost, maintenance in the concrete local conditions. Again, my advice is to use WMO expertise in the design phase of any such project to ensure the sustainability.
5	Hi all. I'm wondering if Bob can talk a little bit more about the kind of data that has gone into the analysis that he presented, as well as the graphic he showed from the Georgeson paper?	Live answered
7	How easy is it to enter into contact with SSA NMHSs? Are there any challenges based on existing national policies on data sharing? What is the approximate period to complete negotiations?	We are fairly well represented within the SSA HMHS ecosystem. So these relationships are leveraged in order to make headway on teaming agreements. It takes a short time to work with development partners to successfully implement the EWS, but a longer time to complete the PPP negotiations. Generally we find the data sharing challenge is a big one in only a handful of SSA countries. Thanks for your question.
8	How does pricing affect uptake of early warning services from private sector users? How is the pricing model agreed and is this a barrier for private sector actors to access the service?	Pricing is entirely market based... it's the result of combination of experience in other similar markets and the local economic conditions. The multi-user model is flexible and allows for multiple customers to use the services while individually paying affordable rates.
9	Your slide on PPP was proposing a large intervention from the private sector to develop early warning services, and a business model whereas associated production costs for warning services would be recovered from commercial production. Has any country in Sub-Saharan Africa delegated the public "regalian" early warning services to the private sector? How is the responsibility of saving lives and livelihoods shared within a delegation of authority agreement?	Maybe a better way to think about it is terms of subcontracting rather than delegation. Global NMHS regularly work with the private sector to gain certain capacities. Sometimes they are basic instruments, other times it's data sources. It depends on the needs of a given NMHS. The responsibility for early warning remains with the NMHS, which procures, owns, and regulates the added EWS capacities. Thank you for your question."
10	Just back from parts of Ghana and Nigeria where we are working with farmers in areas completely lacking in telecom networks. Mobile phone ownership is very low. The mobile phone penetration stats that we receive tend to distort this reality: many in cities own multiple phones, whilst those in rural areas still do not. What other solutions are being considered, given this reality?	I tried to answer this question orally. Please let me know if I did so adequately
12	What is your model for the early stages of engagement in developing EWS in developing countries (e.g. Uganda)?	Hello. In Uganda we have been engaged with the Met Dept and then UNMA for over 5 years. Also, with the EAC Heads of Met on a pilot program in Lake Victoria region that includes Uganda. The NMHS including UNMA have at their disposal a variety of tools to visualize, analyze, validate, and distribute the early warning information. The EWS has gone through a pilot (research) program, then operationalized within UNMA, and now the sustainability framework is being established and launched. Clients are standing by for this next phase to launch. I'd be happy to keep you informed if you provide your contact info. Thanks for your question.
13	Do you assess and communicate the skill of your EWS in a particular country?	
14	What is your experience (how successful were you) in finding clients for the EWS in developing countries (e.g. Uganda) since this is the prerequisite for the sustainability of the system?	
15	What is the spatial coverage of the weather information provided by 321 service? National or sub-national?	Hi! The 321 Service is national in scope. For example, in Uganda, callers choose from 40 cities and towns closest to them.
16	Who's using the 321 Service and what kind of decisions are they making with that information? Do you have any data on impact? Does the service partner with others to ensure end users have the resources to act on the information they receive?	Our target is the general public. Yes, we have great impact data, mostly in the health sector. Yes, we partner...a lot! We don't write any of the messages ourselves. We rely on national and international experts to identify the most important key messages.
17	Do you have a plan to extend the weather services to East Africa countries like Ethiopia and Areas? I am asking this because there is a starting point for such a services which has been started by world bank but it doesn't go further due to so many reasons.	Yes, Ethiopia is one of our target countries. We haven't launched 3-2-1 there yet but hope to do so this year.
18	On what specific models (GFS?) are the weather forecasts based on?	ECMWF, GFS, GEM, UKMet, etc. https://www.earthnetworks.com/product/data-analytical-model-delivery/severe-weather-analytics/encast/ you can read more about the MOS process here http://ral.ucar.edu/projects/dicast/ Please email me for details, as there are versions for renewables, etc.

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19	Impressive reach of your 'phone service. Just wonder if there a danger that the Earth Networks forecast may be different from that of the national NMHSs or regional/county forecast - and result in mixed messaging?	In some countries, EN has built the capacity of the NMHS and improved their forecasting abilities. In these countries, we broadcast this improved forecast. We do not communicate any early warning alerts or warnings unless they come directly from the NMHS.
20	The 321 Service is a great tool which can be replicated in different humanitarian capacities. For example, in Nigeria the service can be used to quickly dessimate attacks on the locals-attacks by militants, herdsmen and insurgents. In what way can individuals, societies, and organisations help in making this service available in Nigeria?	The 321 Service is already live in Nigeria. Our partner is Airtel. Please get in touch with our Country Manager, Harriet Blest: harriet.blest@viamo.io
21	Would it possible to know what the business model of your service is please? And would you know what is the actual use of the information provided by the people in the selected countries (e.g. private, business)? Thank you.	We generate revenue in a variety of ways. NGOs pay us to put their key messages up on the 321 Service, much like they would pay a radio station to broadcast a public service announcement. Private companies also sponsor the 321 Service ("This month the 321 Service is sponsored by Colgate"). We also provide consulting services to organizations who want to maximize the use of technology in their implementation.
22	Which user type do you adress with these forecasts? How did you make sure that the content and format of weather forecast is required and used by the end-user? Is the information content and format different for the individual countries?	We provide a very simple forecast that can be easily understood and digested by people whose livelihoods depend, in part, on the weather, such as farmers and fishermen.
23	How do you make your data available to local industries and end user -- through APIs?	THIS WAS ALSO ANSWERED
24	How to ensure that automatic meteorological stations made available to NMHS, produce sustainable, quality and continuous observations, which depend on operational activitivies such as calibration, maintenance, data transmission, that require resources not available at most NMHS in SSA? Thank you.	Many of these processes are automated and performed in a secure cloud computing instance for the duration of the Service Level Agreement. The NMHS are provided UI tools to engage with the automated QA/QC and data management systems. The NMHS also get the support of the global MetOps team to help them idetify and rectify issues in real-time. As long as there is ability and willingness on the part of the NMHS to engage, this is proving highly effective in LDC NMHS implementations. Thank you for your question.
26	Do you have/ know of any examples of businesses / starts up making climate info usable at consumer level that has been financially viable (without being propped up by donor funding) and if so how what were the main revenue generating activities? (E.g our applicants have considered membership fees, ads on mobile apps etc). I would be interested to hear how 321 cover costs.	I answered the revenue generation question on behalf of the 321 Service up above.
28	Is it possible to look at your data by country?	Yes and no: For the study, we did a "top-down" economic analyse comparing national enabling environments and infrastructure gaps per sector. Results are disaggregated by country and sector. I didn't include these findings in this presentation. However, for the survey from which I shared results in this presentation, we present the demand in aggregate, with responses to certain questions that may be country specific. However, the World Bank has not yet made the report publicly available. I can share as soon as the report it publicly available.
31	It would be interesting to know what informed the selection of the countries for the 321 service, and if the service has had to be adapted in any significant way for different contexts, and how universal the coverage of these networks is.	We tried to sign regional agreements to launch the 321 Service with a single telecom partner, but the regional staff informed us that we needed to speak with the in-country teams. So...we spent +2 years hopscotching across Africa and Asia signing up individual countries. The content in each country is different. We don't write any of the messages ourselves. We rely on national and international experts to write each key message.
32	Under the GFCS, climate services are seen as apublic good, and as Jan Egeland puts it as a Human Right. This would mean the provision of at least minimum amount of climate services as a public good. Spefic user needs could be addressed through cost-recovery basis or comerial services, given that no single entity would be able to address all specific user needs. So, in the mix of public and comercially provided climate services what can be said about sustainability of existing practices?	I think there are three challenges here: 1) in least developed countries, the people who need weather information the most cannot pay for it. They simply do not have the disposable income. 2) the existing "push" channels (radio, television) to deliver weather information that "last mile" are inadequate. and 3) There are hundreds of millions of people living in the world today who will never get online. We recognized these three challenges when we created the 321 Service. (Answered by David McAfee)
33	Is 321 service exist in Mali? if no why?	We plan to launch the 321 Service in Mali in March. Please feel free to contact our Country Manager, Richie Koch: richie.koch@viamo.io.
34	re: 321 Services - what is the motivation in offering services for free and how do private partners benefit? what about NMHSs?	You can think of us like a local radio or television station. Partners pay us to make their key messages available on the 321 Service. But rather than "pushed" out during a broadcast, target group members themselves can "pull" the key messages at a time and place of their choosing. We help the NMHS just like local radio and television stations do: we deliver forecasts and early warning alerts that "last mile" to citizens.
35	What is the role of early warning system in the sever drinking water shortage as example in Africa Cape town?	Unfortunately I don't think we have the relevant knowledge to answer this question, but I recommend you look at some of the communications (blogs and opinions pieces) from CSAG researchers at UCT for more information on this. (Answered by Jean-Pierre Roux)

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36	With whom do you discuss the PPP MoUs? Are Offices of Atty Generals of countries involved to ensure a win win situation for the countries? Who regulates performance?	Hello. The PPP MOUs are negotiated with the NMHS directly with review of national PPP agencies and Attorney General offices. They are the ones who regulate performance. Thanks.
37	How might ppp mechanisms resolve the challenge of poor disaster risk related data/information, and the usual practice that climate-related disasters are typically a humanitarian issue rather than a domain of NHMS?	The role of the national MET service in most countries is to monitor and warn for severe weather and climate. Where the capacity for this is low, the private sector can add such capacity by installing their equipment and systems. They can also train the MET staff of the NMHSs as it was shown by the Earth Networks, while the example by Viamo showed how the private sector can help to bring the information to vulnerable isolated communities.
39	How localised or downscaled is the weather forecast provided by 321? In Malawi for example, farmers complain that the forecast are not as accurate?	In countries where we are hooked up to the Earth Networks weather feed, the 321 Service updates every time EN updates their forecast, about every 15 minutes. EN uses a combination of terrestrial based weather stations and satellite based data.
40	Hi, sorry I missed the name of the last presenter. How would you rate the demand for CIS for long term planning at the sub national level, particularly in coastal zones?	Our study only had 11 respondents from sub-national governments. The analysis had a greater focus on those institutions predominantly responsible for infrastructure investment - available data suggests that African national governments and Official Development Assistance (ODA) are the most substantial sources of investment in African infrastructure, far exceeding sub-national investments. From the 11 survey respondents from sub-national government the greatest demand was for climate finance and project preparation finance mobilisation, followed by training and capacity development (as broad categories or modalities for support).
41	I got you well David!	Live answered
42	When we talk about sustainability in a context of PPP, it is interesting to take into account the priorities of vulnerable groups and especially to build their capacities to know and access climate information. We can take the example of people who are displaced when the authorities build dams to supply water to the bigger cities. Agribusiness is preferred to family farming. My question is: How to avoid the partitions between researchers, the lack of communication of the actors and a research often produced without consideration for its potential users in the field?	Thank you for the question. I agree that there is still a lot of research that is not informed by the demand of so-called "end-users" and development agendas. This gap can be bridged (and in many instances are already being bridged) through collaborative engagement with users in order to inform broad research agendas and particular research questions - here there are interesting approaches being used under the banner of "co-exploration" and "co-production" and I recommend you look at some of the Future Climate For Africa pilot studies. There is a forthcoming manual on co-production for African CIS that will be published under the WISER programme towards the end of next year. This will give more comprehensive guidance and case studies. More work is also required to coordinate donor agendas that fund a lot of climate change / CIS research and coordinate many programmes currently active across the continent. To avoid duplication and leverage wider African networks, a regional research agenda is key. Here the Climate Research for Development (CR4D), with a secretariat hosted by UNECA is a key initiative to track and support. (Answered by Jean-Pierre)
43	Thank you for the useful presentation. You said that a message is free, is it subsidized by the government or the mobile phone companies?	The telephone companies cover the "traffic costs" for the 321 Service (airtime minutes, sms, etc.). They do so because despite being free to the end user, the 321 Service benefits their bottom line by promoting customer loyalty. As such, the telephone companies will continue to offer the 321 Service into the foreseeable future.
44	Do you have any country-specific data or information based on the region under consideration that you would like to talk about here? Thanks.	Unfortunately the webinar did not allow sufficient time to delve into country-level data. We will share the studies referenced where you can find more country-specific information. (Respondent: Jean-Pierre)
45	How did you disseminate the existence of this number? Did you work with national governments on communications campaigns or did you work through local NGO or civil society organizations?	All of our partners help to promote the 321 Service. But the most effective advertisements have been 1) push messages from the telephone company and; 2) word-of-mouth from our own users.
46	On 321 Service: Have you proposed 321 services to other African countries? End users (the farmers in Africa need extended forecast to make sure a better rain feed-agricultural production. Is there any plan 321 service provide climate information beyond weather times scale?	We have signed agreements with telephone companies in 16 African and Asian countries. The 321 Service is live in 13 of them. We hope to scale the 321 Service to 40 countries over the next two years. We offer a 5 day forecast, seasonal outlook, and early warning alerts.
47	Hello Davidov, you did significant work in Uganda, are you planning to extend your activities in the other EAC countries? i.e. Rwanda and Burundi?	Yes, we recently completed the pilot project with the EAC Heads of Met that include all EAC member countries. The future prospects involve direct engagement with each individual NMHS to shape an appropriate program. If you are a stakeholder, please feel free to drop me a note via email. Thank you for your question.
48	May I know if the countries shown in your table are the only Sub-Sahara countries where your service is currently available in the region under discussion? Thanks.	Yes, that is correct. Our map is up to date.

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49	I got you well David! Do you have any future plan of including Tanzania in the system like you are doing in Ghana and other African countries. It is true that in my community (Tanzania) even in very remote areas people own phones, the only way to reach them.	Yes, the 321 Service is live in Tanzania. Please get in touch with our Country Manager, Hannah Metcalfe (hannah.metcalfe@viamo.io) for more information
50	Follow-up on the Q/A on EWS process in Uganda - thanks for offering to provide more information. Maybe we can take it off line. I'll reach out to you via email.	Thank you. Please do!
51	Hi, Thanks for this high level meeting! The month of January there was heavy rainfall in many parts of the Tanzania, which in some area it left many people homeless due to flash flood! In Tanzania we do not have early warning systems for flash floods say coordinated unit for Hydrological modelling and forecasting! I think its high time now we can work on that understanding predicted changes in climate trends.	Thanks for noting this need in Tanzania, we will relay it to our partners working in Tanzania. You may be interested in the HIGHWAY project under the WISER programme, which looked at an Early Warning System (EWS) over Lake Victoria and the MHEWS project (Multi-hazard Early Warning System) also under WISER, that piloted EWS in Tanzania: https://www.metoffice.gov.uk/binaries/content/assets/mohippo/pdf/international/wiser/mhews-tanzania.pdf
52	What about Kenya, has the 321 services began yet?	No not yet. We are currently in negotiations with Safaricom.
53	could you share some more info (docs, figures) on the impact of your service on the health sector?	Here is a link to a blog post from the GSMA regarding an external evaluation they carried out on the nutritional information available on the 321 Service in Malawi: https://www.gsma.com/mobilefordevelopment/programme/mhealth/the-role-of-mobile-in-increasing-nutritional-behaviour-change-in-malawi
54	Arid on your presentation you talk about training and building capacity, if a person have an interest to be train, do you have office in Nigeria?	Thank you for your question. Please email me.
55	Ari will be pleased to email you but can't find the. Please help.	adavidov@earthnetworks.com
56	The principle of win-win situation for PPPs that benefits society at large is important and must be adhered to.	Agreed. It is a basic principle of any PPP and WMO is currently developing guidance for successful PP engagement in the provision of weather and climate services. We go one step further by calling it win-win-win, i.e., beneficial for the public sector providers (e.g., NMHS), for private sector, and for the end user or society as a whole.
57	What are the main stumbling blocks when co-producing climate services by meteorological agencies in conjunction with sectoral/line ministries?	Like in any joint venture, it is crucial to define the roles, competence, responsibility and accountability of the stakeholders. Agreements should cover such aspects as data ownership, cost-recovery, or sharing revenues (for commercial services).
58	What are the most efficient means of communicating climate services to relevant users, be they decision-makers or end-users at the grassroots?	Maintaining an open dialogue with the participants or end users to clarify requirements for services and develop fit-for-purpose efficient solutions is vital.