Workshop Report

Sustainable Climate Information Services (CIS): Expanding CIS delivery through innovative financial and business arrangements

September 17th – 19th, 2018

Dakar, Senegal

This USAID-funded workshop brought together actors from National Meteorological and Hydrological Services (NMHS), private sector, and intergovernmental organizations to share work produced under the USAID funded Sustainable CIS project[1] and start to overcome silos between different contributors to CIS. Further dialogue is encouraged to define priorities and identify synergies, ensuring NMHSs remain an important player in the global weather enterprise landscape.

Day 1: Monday September 17th. A review of metrics to assess NMHS capacity

USAID (Julia Bradley-Cook) and WMO (Olga Krylova) opened the event. The Sustainable CIS project team (Tufa Dinku, IRI, and Mark Tadross, CSAG) presented the NMHS Baseline Assessment Tool, developed to assess NMHS capacity against GFCS pillars and WMO NMHS categories. The team presented criteria and indicators, ranking, scores, and thresholds used to assess NMHS capacity, along with preliminary findings from testing the tool in seven countries (Senegal, Mali, Niger, Cote d'Ivoire, Ethiopia, Rwanda, and Malawi). Small groups discussed usability of metrics and the missing elements as well as capacity-building issues. Feedback and insights were collected from NMHSs on how to strengthen and use the tool, including:

- Participants appreciated the approach of combining two well-known frameworks (GFCS pillars and WMO NMHS categories) into an evaluation framework, as well as the objectivity of the approach.
- The assessment tool is convenient for assessing specific capacity gaps and for strategic and operational planning by NMHS.
- WMO Country Profile Database and related surveys cover hydrological, meteorological, and climate services and the GFCS pillars cover climate services. There is not complete overlap between these which can create a bias, which should be kept in mind in efforts to further refine the tool.

[1] For more information on the project see: https://www.climatelinks.org/project/assessing-sustainability-and-effectiveness-climate-information-services-0

Figure 1 Small group discussion

- ACMAD has a User Interface Platform methodology that includes HelpDesk interactions, Expert Forums, and an Intermediary (physical) function. Adding this to the Baseline Assessment Tool could be explored.
- Leaving the 'Advanced' category out of the tool prevents capturing capabilities that some of the pilot NMHSs have. For example, ANACIM delivers some of the services that fall under the 'Advanced' category. The team responded by pointing out that none of the assessed NMHS even fulfilled the criteria for Category 3.
- Assessment must be a collaborative process to adequately reflect national contexts (availability of capabilities and qualified staff to deliver certain types of climate services).
- Cut-off points between scoring thresholds of "fully met", "partially met" and "did not meet" do not allow NMHSs to fully demonstrate their capabilities. For example, a score of 70 and below results in "did not meet" but covers a wide range of results that demonstrate some progress towards meeting the criteria. Further fine-tuning of weight-assigning is recommended, including displaying the final score to better reflect the status of NMHS that partially meet thresholds.
- Further refinement of the metrics through broader consultation with experts from WMO, NMHS, Regional Climate Centers, and other stakeholders is advised. In particular, recommended densities of weather and upper stations may not be appropriate for LDCs, etc. This may be accomplished through a workshop where

experts from the stakeholder institutions get together to undertake a thorough review of each component of the tool and then reach consensus.

- Additional verification of responses and more rigorous sensitivity analyses of the scores may be useful to improve the results. For example, use documents to support verification can be obtained from NMHS, NMHS web pages, previous surveys, and WMO's Country Profile Database.
- Some sensitive issues require further thought such as financial disclosure. The assessment of financial capacity requires both quantitative and qualitative data and therefore it may be beneficial to involve financial analysts in the development of a survey tool to undertake interviews and collect the appropriate data to allow for a more robust and objective assessment.
- Even though the 'traffic light' color-coding was found to be simple to understand, it may require revision to reduce undesired impacts on user perceptions, for example red as a stop-sign for gaps.
- The following topics could be added or strengthened: governance; management; communications and user interface; gender and indigenous knowledge; user perspectives, and demand for CIS. On the last point, working with users is crucial to shape demand and ultimately the design of climate services. This might include sensitization about climate services, linguistic/cultural aspects, communicating uncertainty, and possible co-produced products.
- In contrast to the prior point to add more topics, there were some comments that the metrics and questionnaire are too detailed, complex and/or time consuming and the tool could benefit from some simplification.
- It is important to train managers and other leaders on the tool for NMHSs to efficiently use it.

Day 2: Tuesday September 18th. A review of NMHS financial planning tool

USAID (Julia Bradley-Cook), WMO (Filipe Lucio), and Winrock International (Robert O'Sullivan) opened the event. The Sustainable CIS project team (Robert O'Sullivan and Remi Alquier) presented background research on the CIS market and need for NMHS financial sustainability, the draft NMHS Financial Planning tool and related pilot work in Mali and Rwanda. Feedback was obtained from NMHS and other participants on the tools to strengthen the tool and its connection to baseline metrics. Some insights that emerged from the discussion and feedback were:

- A lack of sustainable/predictable funding for NMHS hinders CIS development.
- The tools must be tailored to the specific national circumstances and include both initial investment and O&M costs to facilitate equitable revenue-sharing.
- Tool use should also be based on an economic/market study for adequate value estimation.
- Using such a tool requires alignment with existing NMHS mechanisms and capacity development to operate it.

- Sensitization work is required to invest in using such tools – governments are reluctant to put money in what is regarded as public good and appears to lack clear cost recovery potential.
- Some thought should be put toward the development of a legal framework to help these tools to access financing.

Figure 2 Day Two WMO Presentation on PPE

NMHS and Private Sector Dialogue

WMO (Filipe Lucio) presented its Public-Private Engagement (PPE) framework and Global Weather Enterprise forum (see for more information https://public.wmo.int/en/our-mandate/how-we-do-it/partnerships/Public-Private-Academic%20Sectors%20Engagement). The WMO PPE Framework is the first step towards defining the rules of engagement for WMO to ensure level-playing field for hydromet and climate sector stakeholders. It supports and builds on the WMO Convention, existing policies, and related regulations and guidance. The next important step will be collecting practices and examples and developing guiding principles (or options) to inform the design of projects and partnerships related to weather, water, and climate services worldwide. The key issues requiring particular attention in the NMHS engagement with the private sector that WMO emphasized were: (1) maintaining NMHS position as a key source of reliable climate information, (2) equitable revenue-sharing fairly negotiated, and (3) open data access and sharing between NMHS and the private sector.

The initial message of intergovernmental organizations to NMHS was to sell data yet NMHS are now encouraged to open data for access by broad stakeholders. Thus NMHS should simultaneously offer and/or strengthen service-delivery capacities to be able to market added value services instead of raw data.

Private sector actors presented work in Sub-Saharan Africa focusing on examples of 'win-win' business models noting the US open-data policy is subsidized by USD 1bn in annual government funding (yet this generates additional revenue and economic value). As such the open-data policy would contribute to national economies though mostly manifesting in business-to-business transactions.

Some of the challenges for public - private collaboration that emerged from the discussion were:

- NMHS often lack strategic planning and business management/negotiation skills, which could influence approaches to partnerships.
- There is a disconnect between data gaps, data priorities, technological needs and capacity to maintain new technology.
- NMHS autonomy needs to be supported.

Some solutions to address these gaps were identified, including:

- One potential source of additional funding for CIS might be leveeing a small charge on revenues in sectors that use climate data, similar to carbon tax in aviation (EU ETS).
- The development of NMHS strategic plans can address multiple challenges. The financial planning tool could help create the strategic plan that should be developed with consultation with relevant stakeholders, including users and the private sector. Such plans could:
    - Support NMHS autonomy
    - Identify data gaps and priorities, technological needs and capacity to maintain new technology. The baseline metrics can contribute to bridging the disconnect between NMHS needs and cost-effective solutions.
    - Map roles of NMHS and private sector, though this should not be too prescriptive.
    - Be used by NMHS to identify opportunities to develop and deliver added-value services rather than providing just data
- Educate end-users on CIS data which can involve working with private sector for last mile delivery.
- Create a space or forum to help foster collaboration.
- Create a private sector code of conduct on how to provide CIS and data.

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(Half-)day 3: Wednesday 19 September 2018. *Review and next steps*

Participants reviewed input for the three key project components: baseline metrics, financial planning, and engagement with private sector. General approval was expressed for the tools by NMHS and private sector representatives, including private CIS companies who saw value in better understanding the strengths and needs of NMHS to help identify opportunities for collaboration. For example, a Mali textile company representative that saw value in the tools to ensure NMHS efficiency and sustainability, which is crucial for the private sector planning that uses hydromet and climate data. The tools can be of practical use in national public/NMHS strategic internal planning, engaging with donors using objective mapping of NMHS capabilities, and seeking complementarities and 'win-win' synergies with the private sector.

NMHS reflected on the possibilities to integrate the tools in their respective national systems and identified several steps in the process:

(1) Define internal use and purpose. For example, public sector strategic planning, internal NMHS activities, donor engagement, private sector engagement.
(2) Ensure acceptance of the tools at the WMO level and acquire political support at the national level.
(3) Secure commitment with the NMHS executive management.
(4) Adapt the tools to national contexts, including alignment with national mechanisms and integration with other tools that had previously been developed. For example, in Mali with assistance from the World Bank, Green Climate Fund, etc.
(5) Develop user guidance and training programs to help NMHS effectively use the tools.

Some further insights that emerged during the final discussion also included:

- NMHS may want to use the tools to support visibility and their function as a 'clearing house' or a 'knowledge broker' for climate information and services.
- Once at step 5 (use stage), tools should be available on-line for convenience.
- Dissemination of country-specific results from the capacity assessment may require consent of respective countries due to the sensitivities in the results.
- Tools should be rooted in national socio-economic and legal contexts and their refinement should be collaborative and engage the NMHS.
- One possible collaborative process to improve the tools is a set of workshops bringing together NMHS, Regional Climate Centers (RCC), WMO, and other relevant institutions.
- In addition to the endorsement by national and sub-national mechanisms of the tools developed by project, their efficient uptake is contingent upon leadership skills among technical hydromet staff and effective strategic planning.
- The tools developed by the project can support the important transition from data provision to service delivery.

Annex I – List of Participants

Name	Title	Organization & country	Contact Email
Public Sector			
Andre Kamga Foamouhoue		ACMAD, Niger	akamgaf@yahoo.com
Floribert Vuguziga		NMHS, Rwanda	f.vuguziga@meteorwanda.gov.rw
Amos Douglas Mtonya		NMHS, Malawi	amosmtonya@gmail.com
Alouine Ndiaye		WMO, Senegal	andiaye@wmo.int
Kolotioloma Alma Coulibaly		NMHS, Cote D'Ivoire	kcoulibaly2@yahoo.fr
Mamadou Adamo Diallo		NMHS, Mali	madialloba@gmail.com (223) 764 791 96
Mariane Diop Kane		NMHS, Senegal	marianediopkane@gmail.com;
Ousmane Ndiaye		NMHS, Senegal	Ondiaye70@gmail.com; ousmane.ndiaye@anacim.sn;
Adji Awa Toure		NMHS, Senegal	awa@anacim.sn;
Pascal Yaka		GFCS Regional Office, Senegal	pascalyaka@gmail.com;
Alioune Ndiaye	SG Special Advisor	WMO	andiaye@wmo.int;
Oumou Ly	Environmental Specialist, Climate Integration Lead	USAID/Senegal	oly@usaid.gov;
Julia Bradley-Cook	Climate Change Advisor, AAAS Science & Technology Policy Fellow	USAID Africa Bureau, Office of Sustainable Development, USA	jbradleycook@usaid.gov;
Private Sector (Day 2 and 3)			
Stewart Neville Collis	Chief Technology Officer & Co-founder	aWhere, USA	stewartcollis@awhere.com;
Daniel Kwabena Asare-Kyei	CEO	ESOKO, Ghana	daniel@esoko.com;
James Anderson	CEO	Earth Networks, USA	JAnderson@earthnetworks.com;
Amos Olerty Wussah	CEO	Farmerline, Ghana	amos@farmerline.org;
Cheik Oumar Tidani Doucouré		CMDT (Mali Textile Development Company), Mali	doucoure_cheick_oumar@yahoo.fr;
Theophile Mande	Regional Director	TAHMO, Burkina Faso	mandetheophile@gmail.com; theophile.mande@epfl.ch;
Ini Armande Ouattara	Senior Project Manager	Viamo	armande.ouattara@viamo.io;

Project Team			
Robert O'Sullivan[2]	Deputy Senior Director, Water & Policy, Markets & Finance	Winrock International, USA	Robert.OSullivan@winrock.org
Tufa Dinku	Senior Scientist	IRI, USA	tufa@iri.columbia.edu
Mark Alexander Tadross	Senior Research Officer	CSAG, South Africa	mtadross@csag.uct.ac.za
Olga Krylova	Project Support Officer, Climate & Water Department	WMO, Switzerland	okrylova@wmo.int
Remi Pierre Alquier	WI Financial Modelling Consultant	France	remialquier@outlook.fr
Seydou Tinni Halidou	Expert in Meteorological & Climatological Forecasts	AGRHYMET, Niger	seydoutinni@gmail.com
Amanda Lewis	Regional Technical Advisor Agriculture & Livelihoods	CRS, Senegal	amanda.lewis@crs.org

[2] Project Director and point of contact for the Sustainable CIS Project