



Workshop Report

Ag-Data Hub Webinar with Senegal's Agricultural Extension and Advisory Service Providers

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AICCRA
Accelerating Impacts of CGIAR
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About AICCRA

Accelerating Impacts of CGIAR Climate Research in Africa (AICCRA) is a project that helps deliver a climate-smart African future driven by science and innovation in agriculture. It is led by the Alliance of Bioversity International and CIAT and supported by a grant from the International Development Association (IDA) of the World Bank. Explore AICCRA's work at aiccra.cgiar.org

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Abstract

A webinar on the topic of Senegal's newly launched Ag-Data Hub was convened with Senegal's main public and private agricultural extension and advisory service (EAS) providers on April 27, 2023. The webinar, which was organized as part of the World Bank's Accelerating the Impacts of CGIAR Climate Research for Africa (AICCRA) project, brought together EAS providers who were involved in the co-production, training of trainers (ToT), and upcoming pilot of the newly developed Climate Risk Management in Agricultural Extension (CRMAE) curriculum to learn more about the Ag-Data Hub incorporated within the curriculum's Module 2 covering climate information and tools available for agriculture in Senegal. The Ag-Data Hub integrates data from multiple sources to help farmers and those who support them such as EAS to make informed decisions such as about which crops or varieties to plant in a given location, when to sow them, and more.

Keywords

Senegal; data; agriculture; climate change; climate variability; food security; capacity development; climate-smart agriculture

About the Authors

Amanda Grossi is a Senior Staff Associate at the International Research Institute for Climate and Society (IRI) of the Columbia Climate School. Within the AICCRA project, she is the IRI's Regional Manager for Africa where she coordinates the IRI's activities at the country-level in Ethiopia, Kenya, Zambia, Ghana, Mali, and Senegal. In this role, she provides critical support to the development and delivery of capacity building initiatives and digital innovations, including those associated with the IRI's Enhancing National Climate Services (ENACTS) approach.

Melody Braun is a Senior Staff Associate at the International Research Institute for Climate and Society (IRI) of the Columbia Climate School. With a multidisciplinary background in Earth science, sustainable development and adaptation to climate change, her work focuses on the design and support of strategies to improve the integration of climate information into decision making processes to increase preparedness, response, and resilience to climate impacts.

Ram Dhulipala is a Senior Scientist at the International Livestock Research Institute (ILRI) in Kenya specializing in digital agriculture and innovation. In the AICCRA project, he has led the co-development of Senegal's national ag-data hub with national and international partners in Senegal.

James Hansen is a Senior Research Scientist at the International Research Institute for Climate and Society (IRI), Columbia Climate School. With a background in Agricultural Systems, his work focuses on improving the management of climate risk and the use of climate information for farmer livelihoods, agricultural development, and food security in the developing world. Dr. Hansen served on the leadership team of the CGIAR research program on Climate, Agriculture and Food Security (CAAFS), leading its Flagship 4 Program on Climate Services and Safety Nets from 2009 to 2019.

Sylwia Trzaska is a Senior Staff Associate and climate scientist at the International Research Institute for Climate and Society (IRI) of the Columbia Climate School.

Geneva List is a Senior Staff Associate at the International Research Institute for Climate and Society (IRI) of the Columbia Climate School.

Nadine Worou is the AICCRA-Senegal Coordinator based at the International Livestock Research Institute (ILRI) in Dakar, Senegal. In this role, Dr. Worou provides leadership and guidance, ensuring the delivery of outputs and outcomes for AICCRA's activities in Senegal, including partnerships strengthening and the generation and dissemination of knowledge from research and innovations. She has more than 20 years of experience working on climate change challenges, system modelling, and forest resource management.

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The Climate Risk Management in Agricultural Extension (CRMAE) curriculum and its associated capacity building activities represent a collaborative effort made possible by the participation and exchanges between public and private actors in Senegal's agricultural advisory system, and led by the project partners, in particular the National Agency for Civil Aviation and Meteorology (ANACIM), the Senegalese Institute of Agricultural Research (ISRA), the National Agency for Agricultural and Rural Council (ANCAR), the Network of Farmer and Pastoral Organizations of Senegal (RESOPP), University of Sine Saloum El-Hâdj Ibrahima Niass (USSEIN), Alioune Diop University of Bambey (UADB), MLouma, Jokalante, the International Livestock Research Institute (ILRI), AfricaRice, and the International Crops Research Institute for the Semi-Arid Tropics (ICRISAT).

Highlights



1

Strengthening the capacity of next users, particularly agricultural extension and advisory service (EAS) providers who work to support farmers, on the latest digital innovations to adapt to a changing climate is crucial for **enhancing access to climate information services and validated climate-smart agriculture technologies** in Senegal.



2

On April 27, 2023, a **webinar on the topic of Senegal's newly launched Ag-Data Hub** was convened with Senegal's main public and private agricultural extension and advisory service (EAS) providers, in preparation for the pilot of the new Climate Risk Management in Agricultural Extension (CRMAE) curriculum in which information on the Ag-Data Hub has been integrated.



3

A total of **14 participants representing public and private agricultural extension and advisory service providers** participated in the webinar and were capacitated on the basics of its functionalities, navigation, and use.



4

The **open-source Ag-Data Hub** is incorporated into the Multidisciplinary Working Group (GTP) web page of the Agence Nationale de l'Aviation Civile et de la Météorologie (ANACIM).



5

The Ag-Data Hub has been **integrated within the CRMAE curriculum targeting agricultural extension professionals**. Ensuring Senegal's EAS providers are current on the latest digital innovations is **important for supporting Senegal to advance its Digital Senegal 2025 Strategy in line with its national Emergent Senegal Plan (PSE)**.

1: Introduction

The Accelerating Impacts of CGIAR Climate Research for Africa (AICCRA) project aims to enhance access to climate information services and validated climate-smart agriculture technologies in Africa, to help these countries strengthen the resilience of their agricultural sectors to the threat posed by climate change. Strengthening the capacity of next users, particularly agricultural extension and advisory service (EAS) providers who work to support farmers in Senegal and five other target countries, is crucial for achieving this goal.

Towards these ends, the AICCRA project has been working to co-design and co-implement curricula targeting the agricultural extension systems in each of the six AICCRA target countries to build foundational knowledge and skills to manage climate risk, including Senegal. These curricula aim to help EAS providers to take advantage of best-available and location-specific climate information products and tools in their countries to better plan for, manage, and respond to a changing and varying climate.

They also aim to pragmatically support the tailoring and communication of such information to meaningfully inform on-farm agricultural decision-making and build wider resilience of the agricultural sector.

To advance these goals in Senegal, the AICCRA project guided the co-development and training of trainers (ToT) on a newly developed Climate Risk Management in Agricultural Extension (CRMAE) curriculum from March 6-15, 2023, with Senegal's main public and private EAS providers.

While the workshop covered many topics and digital innovations including ANACIM's Maprooms (ANACIM, 2023) and the SIMAGRI decision support tool (IRI, 2023) as part of Module 2 of the new curriculum (See *Figure 1*) covering Climate Information and Tools Available for Agriculture, limited availability of training personnel at the time did not allow sensitization and skills-building on two major AICCRA-initiated innovations which are incorporated in the curriculum, namely [Senegal's new national Ag-Data Hub](#) (CNSC, 2023) and iSAT advisory tool.

As such, the IRI team organized a webinar on the topic of the Ag-Data Hub with those EAS providers trained in March who are responsible for leading the pilot of the curriculum. Ensuring Senegal's EAS providers are current on the latest digital innovations is important for supporting Senegal to advance its Digital Senegal 2025 Strategy in line with its national Emergent Senegal Plan (PSE).

The target audience of the Ag-Data Hub webinar was participants of the Climate Risk Management in Agricultural Extension (CRMAE) Curriculum Training of Trainers for Senegal's Agricultural Extension System workshop held from March 6-15, 2023.



In partnership with AICCRA, Ag-Data Hubs are currently being established by the International Livestock Research Institute (ILRI) in Kenya, Zambia, Mali, and Senegal to be jointly owned by the government's meteorological and agricultural departments.

The hubs integrate data from multiple sources to help farmers make informed decisions about which crops or varieties to plant in a given location, when to sow them, and more (AICCRA, 2022).

In Senegal, the Ag-Data Hub is incorporated into the [Multidisciplinary Working Group \(GTP\) web page](#)— Cadre National des Services Climatiques (CNSC) in French—hosted by the national meteorological service, Agence Nationale de l'Aviation Civile et de la Météorologie (ANACIM).

2: Approaches and Methods

Workshop Structure and Participation

The workshop, which was organized by AICCRA-Senegal, was facilitated by Dr. Ram Dhulipala of the International Livestock Research Institute (ILRI) who led the technical co-design and co-development of Senegal's national Ag-Data Hub (CNSC, 2023), officially launched in March 2023 with national and international partners. Language support (in French), moderation, and discussion facilitation was provided by the International Research Institute for Climate and Society (IRI) of the Columbia Climate School.

The workshop aimed to expose public and private EAS providers who would lead the pilot of Senegal's new Climate Risk Management in Agricultural Extension

(CRMAE) curriculum in May 2023 to the Ag-Data Hub, provide an overview of its main functions, give opportunity for participants to practice navigating the ag-data hub platform to answer common climate-related agricultural questions, and allow EAS providers who are a main target user of the platform to interact with its developer.

A full list of the 14 participants is available in **Box 1**, though in brief, representation included:

National Institutions

- The National Agency for Civil Aviation and Meteorology (ANACIM)

Those who work closest with farmers must be current on the latest digital innovations to support decision-making in a changing climate. Towards this end, AICCRA-Senegal hosted a webinar with Senegal's main public and private extension and advisory service (EAS) providers on its newly launched national Ag-Data Hub. Pictured here, Melody Braun of the IRI opens the webinar with a brief explanation of the Ag-Data Hub and its aims.

The screenshot shows a presentation slide titled "What is AgDataHub?". The slide content includes:

- Goal**
- National scale ag and climate data hub
- Platform to integrate climate data into agriculture decision-making
 - Varying spatial and temporal scales
- Anchored and owned by national agencies
 - Eg : AAS (IMD), KAOP (KALRO), GTP (ANACIM) etc
- Facilitates institutional partnerships through an ecosystem approach*
 - Platform economy around climate data

The slide also features the AICCRA logo (Accumulating Insights of CGIAR Climate Research for Africa) and a video inset of Melody Braun, who is speaking. The video inset shows her in a room with a whiteboard. The date and time in the bottom right corner of the screenshot are 2023-04-27 09:19:08.

- The Senegalese Institute of Agricultural Research (ISRA)

The Private Sector

- MLouma
- Jokalante

Farmer Organizations

- The Network of Farmer and Pastoral Organizations of Senegal (RESOPP)

Development Partners (International Organizations)

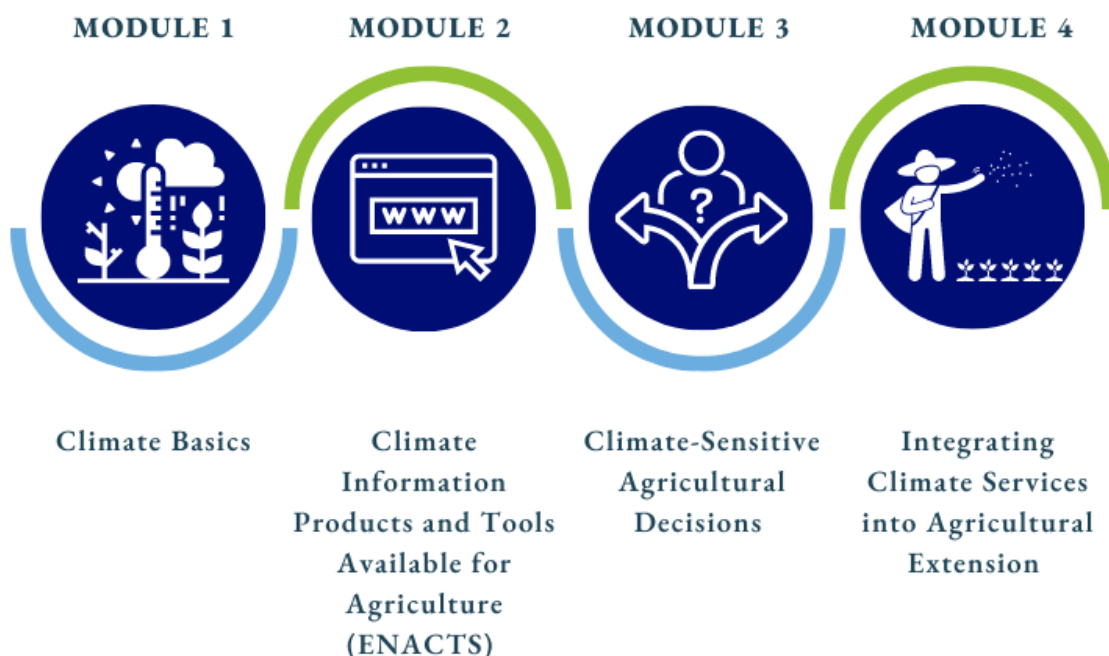
Educational Institutions

- University of Sine Saloum El-Hâdj Ibrahima Niass (USSEIN)
- Alioune Diop University of Bambey (UADB)
- Ecole Supérieure des Sciences Agricoles et de l'Alimentation (ESSA) of L'Université Amadou Mahtar Mbow (UAM)

- the International Livestock Research Institute (ILRI)

The list of trainers and support staff for the workshop can be found in **Box 2**.

Figure 1: CRMAE curriculum modules. The four component modules of the Climate Risk Management in Agricultural Extension curriculum targeting extension staff build upon and reinforce each other.



3: Key Results and Findings

Recording of the Webinar

A recording of the webinar can be accessed on the AICCRA project's YouTube channel [here](#) (AICCRA CGIAR, 2023).

General Comments and Feedback

Adaptation of the Ag-Data Hub for Research

The EAS providers present on the call appreciated the many functionalities and practical nature of the Ag-Data Hub. Participants from ISRA inquired as to whether the dashboard might be adapted more to support research purposes, since ISRA is generating agricultural data for various research aspects. The AICCRA team responded that while the Ag-Data Hub was designed with the primary purpose of supporting agricultural advisories and the dissemination of this information, if ISRA has sufficient data, this kind of adaptation could be supported, funding permitting.

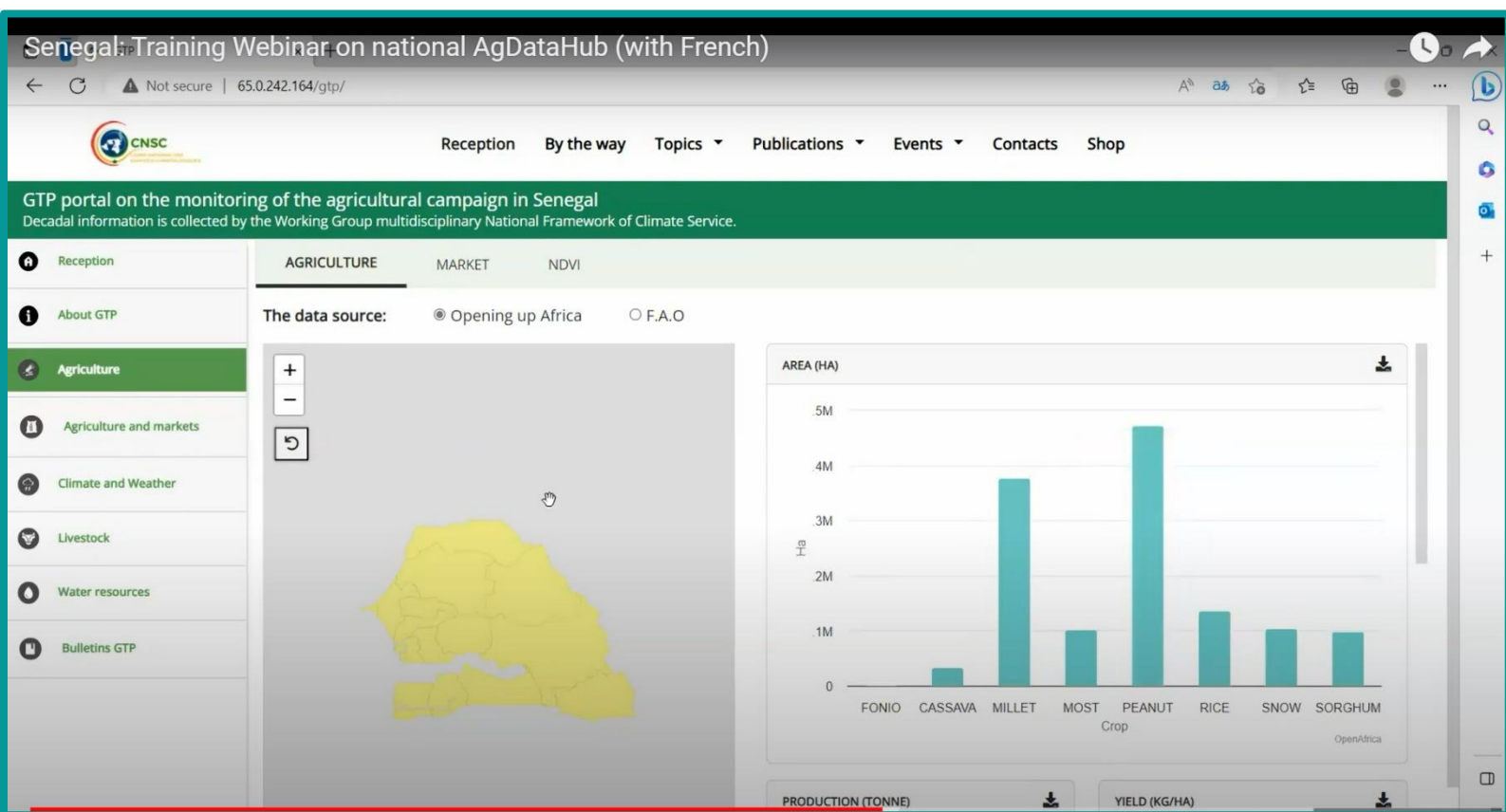
Modalities of Collaboration between Ag-Data Hubs and Ag-Techs

Some of the private sector participants including MLouma wanted to know how those working in agricultural technical organizations might fully leverage the data in the ag-data hub. The AICCRA team responded and clarified that the CNSC website and portal on which the ag-data hub sits is an open-source portal. However, if any organization wants to access the same data through an API, it will need to establish an agreement with ANACIM which owns and hosts the portal.

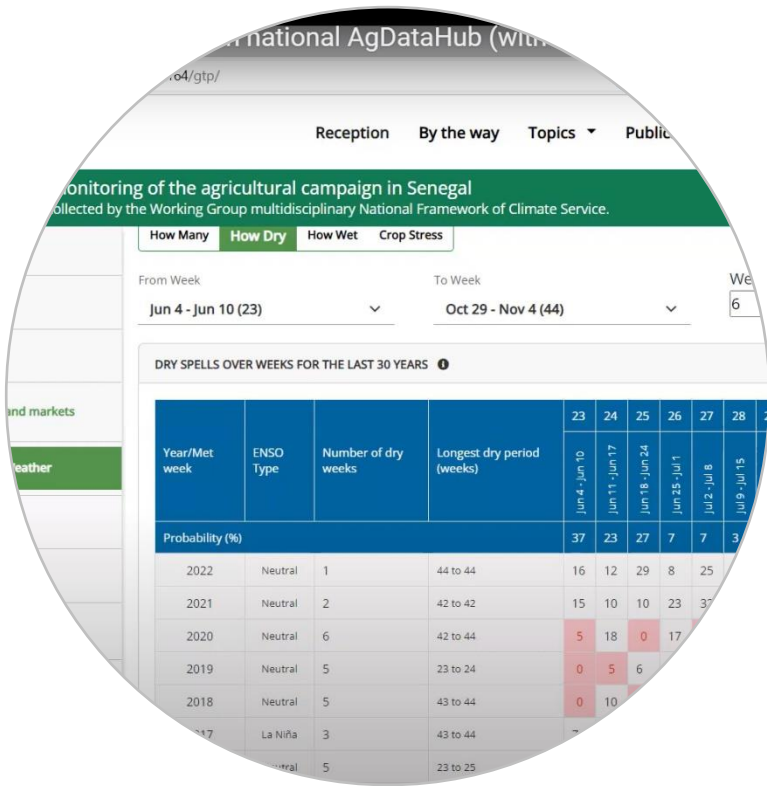
Language

While the EAS providers on the call were concerned about the Ag-Data Hub platform being in English, it was clarified that the platform is also available in French for ease of use by Senegalese extension staff or others.

Ram Dhulipala of ILRI shows participants how to navigate around Senegal's newly launched Ag-Data Hub, and in particular its Agriculture dashboard with crop production data. The hub integrates data, such as climate and agricultural data, from many sources to help inform climate-sensitive decisions.



4: Conclusions and Recommendations



Participants explore the various kinds of historical climate data available in the Ag-Data Hub dashboard during the webinar. Beyond future (forecast) climate information, the portal also provides access to past historical (climatological) and monitoring data.

In terms of next steps, the recording of the webinar was made available to the public and private EAS providers present on the call, for reference and wider sharing during the May 2023 pilots with extension staff at the respective sites (Thies, Bambey, Kaolack).

5: List of Participants and Trainers

Box 1

List of Participants: Ag-Data Hub Webinar with Senegal's Agricultural Extension and Advisory Service Providers

(April 27, 2023)

No.	Name	Gender	Organization/ Structure	Contact
1	Ababacar Sy Diallo	M	RESOPP	Ababacarsy diallo7@gmail.com
2	Ousmane Sarr	M	RESOPP	Ousmane.sarr@resopp-sn.org
3	Yakhya El Hadji Thior	M	ISFAR/UADB	Yakhya.thior@uadb.edu.sn
4	Sadibou Sow	M	UADB	Sadibou.sow@uadb.edu.sn
5	Thierno Aliou Tall	M	ANCAR	thiertal@gmail.com
6	Aboubacar Sidy Sonko	M	MLouma	assonko@mlouma.com
7	Diabel Ndiaye	M	ANACIM	diabel.ndiaye@anacim.sn
8	Cheikh Thiaw	M	USSEIN	Cheikh.thiaw@ussein.edu.sn
9	Babacar Faye	M	USSEIN	Babacar.faye@ussein.edu.sn
10	Babacar Seck	M	Jokalante	Babacar.seck@jokalante.com
11	Nogaye Gaye	F	ANCAR	no2gaye93@gmail.com
12	Bassirou Sine	M	CERAAS/ISRA	esayas.lemma@moa.gov.net
13	Adama Faye	M	ISRA	bassirou.sine@isra.sn
14	Amadou Ndiaye	M	ESSA of UAM	Adama.faye@isra.sn

There were a total of 14 trainees, one of whom was a woman (7%) and 4 (29%) of whom were youth (under the age of 35).

Box 2**List of Facilitators: Ag-Data Hub Webinar with Senegal's Agricultural Extension and Advisory Service Providers
(April 27, 2023)**

No.	Name	Gender	Organization/ Structure	Position/Title	Email
1	Melody Braun	F	IRI	Senior Staff Associate	mbraun@iri.columbia.edu
2	Amanda Grossi	F	IRI	Senior Staff Associate	amanda@iri.columbia.edu
3	Sylwia Trzaska	F	IRI	Senior Staff Associate	syl@iri.columbia.edu
4	James Hansen	M	IRI	Senior Research Scientist	jhansen@iri.columbia.edu
5	Geneva List	F	IRI	Senior Staff Associate	geneva@iri.columbia.edu
6	Ram Dhulipala	M	ILRI	Senior Scientist	rdhulipala@cgiar.org

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Available at: <https://aicra.cgiar.org/news/how-climate-data-transforming-agriculture-decisions-africa>

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