



Climate Information Services to Support Farmer Decision-Making Under a Changing Climate

Dr. Arame Tall
Climate Information Services – Scientist, Champion
a.tall@cgiar.org

Our Common Challenge



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 Agriculture and
 Food Security**



- Reaching farmers with salient, downscaled and decision-relevant climate information and advisory services is a challenge.
- A number of bottlenecks complicate the process of climate information production and delivery:
 - Incomplete knowledge of the **needs of farmer end users**; and their limited input into the process of climate service development,
 - Insufficient **infrastructure** to deliver information (electricity, cell phone towers, etc.);
 - Inappropriate **timing, content, scale, or format** of climate and weather information;
 - Farmers' lack of access—or **inequitable access**—to communication technologies;
 - Farmers' lack of **understanding** for complex climate information, or lack of **trust** for what they do understand
 - And lack of appropriate data –lack of **historical climate data** for developing countries, which precludes calculation of future climate projections; and the lack of complete datasets for **agriculturally relevant variables**, including precipitation, river flow and humidity; as well as coordinated research to deliver as one on farmer information needs
- It takes a concerted effort to ensure all the elements of effective climate and weather information and advisory services (delivery, salience, legitimacy, and equity) are delivered to and utilized by farmer communities, and individuals within them, that need such information the most.
- **One solution to overcome this challenge and reach farmers at scale?**
 - **Strong partnerships between the National Met Service and National Agricultural Research and Extension Services.**

The Gap...



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What do they need from us? What can we possibly offer them? I don't have time for this, so many more models to run!!!

What could possibly make me want to risk getting on this bridge? What's in it for me?

**CLIMATE
SCIENTISTS**

**POLICY
-
MAKERS**

**THE GAP BETWEEN CLIMATE SCIENTISTS AND
POLICY-MAKERS**

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Climate Info

- 1- Gap at national level between climate info providers & end-users
- 2- Language barrier
- 3- Communication systems barrier
- 4- Scientific barrier (skill level)
- 5- Lack of trust in forecasts
- 6- Low capacity to act on forecasts

Key

Percentage likelihood of:

A	Above-normal rainfall
N	Near-normal rainfall
B	Below-normal rainfall



Urgent to Bridge the Gap...

Bridging the Information gap

- CCAFS is supporting studies of a number of initiatives in sub-Saharan Africa and South Asia that have grappled with the complexities of communicating and applying seasonal and shorter term forecast information, yet demonstrate good practice and provide valuable insights.
- Noteworthy examples are India's agrometeorological advisory services (AAS program, which recently announced plans to scale up to 10 million farmers in 2012) and Mali (which has provided innovative services to farmers since 1982), which both provide evidence at scale of the use and benefits of the information and advisories at the village level.



Dr. Ousmane Ndiaye (ANACIM) using the Probability Distribution Function to train farmers on the Seasonal forecast 2011. *Photo credit: J. Hansen*

Learning from Good Practice across Africa and South Asia



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- Across all CCAFS surveyed cases in Africa and South Asia, countries were able to reach farmers at scale by:
 - **Opening a space for dialogue between climate scientists and agricultural experts:** In Mali this framework for interaction consists of the *Groupe de Travail Pluridisciplinaire pour l'Assistance au monde Agricole*, which enables met service staff, agricultural researchers and others to collate their respective expertise, towards producing a focused weather-based advisory usable by farmers, equipped by the program with rain gauges to monitor for themselves the unfolding of the season. In India's Agromet Advisory Service (AAS) program, a network of State level Agricultural Research Universities receive 5day weather forecasts from the national Meteorological department as input to the production of a weather based advisory.
 - **Partnering with boundary organizations to reach “the last mile”:** NGOs, CBOs, organized networks of communicators and civil society organizations were put to use as important relays of climate information, in an effort to reach farmers in the most remote lands. Often time sensitive advisory information gets stuck at the provincial or district level. All CCAFS featured successful cases brought to bear networks of boundary organizations to overcome this bottleneck.
 - **Focusing on Equity:** When **women and other underserved and marginalized groups** receive the information within the community, then all receive and benefit.



Emaciated woman farmer in Kaffrine (Senegal) during rainy. Season. Photo credit: Arame Tall

Steps to Building Strong Partnerships between National Institutions to Support Effective Climate Risk Management



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- Building strong partnerships at the national level, and enabling the institutional framework for collaboration among relevant technical departments, is a prerequisite however to the success of Climate services for farmers. One solution forward appears to be participatory 3-day National Workshops for Climate Services that have been used in various parts of Africa to bring together stakeholders in the , and establish a covenant to produce and communicate salient climate services.
- Partnerships between national knowledge hubs will have to be enabled, and spaces opened for relevant partners to dialogue and pool their expertises together to respond to farmers' information needs.
- Such a process of bridging the gap at the national level between those who have the information and those who need it will not happen in a vacuum however, development partners will need to mediate and actively support this process.

Reaching Farmers with Climate Services at Scale > Mission Possible

- Examples surveyed by CCAFS prove that it is today Mission Possible to reach millions of farmers with salient and downscaled climate information and advisory services relevant to support their decision-making under an uncertain climate.
- It is time to Scale Up this approach for many other farmers to have access and benefit from available climate information and advisory services.
- **The time is Right for Climate Services.**

*For more information, contact:
Arame Tall, a.tall@cgiar.org*



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Photo: Farmer in Ouelessebougou village, happy beneficiary of Mali's 30year old Agromet advisory program. Credit: A. Tall