

IFPRI Lunch Seminar, June 3 2014





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## Empowering Farmers to Confront Climate Risks: CLIMATE SERVICES *Lessons from Africa and South Asia*

**Dr. Arame Tall**  
Climate Services-  
Global coordinator, Champion  
[a.tall@cgiar.org](mailto:a.tall@cgiar.org)




## The Big Picture






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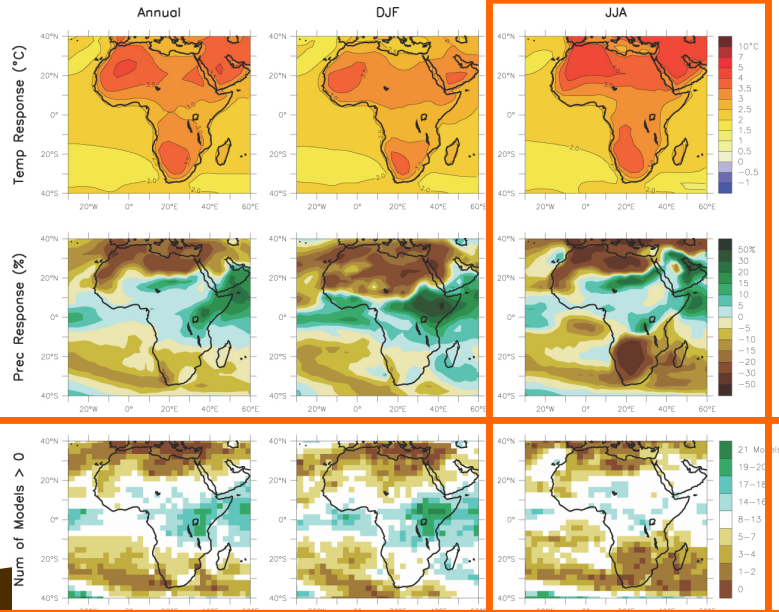
+2° future by  
2100  
9 billion people by  
2050  
**⇒ The Imperative  
of Adaptation**

## What do we Adapt to?



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## Projections of precipitation change at the end of the 21<sup>st</sup> century



[http://www.ipcc.ch/publications\\_and\\_data/publications\\_and\\_data\\_figures\\_and\\_tables.shtml](http://www.ipcc.ch/publications_and_data/publications_and_data_figures_and_tables.shtml)

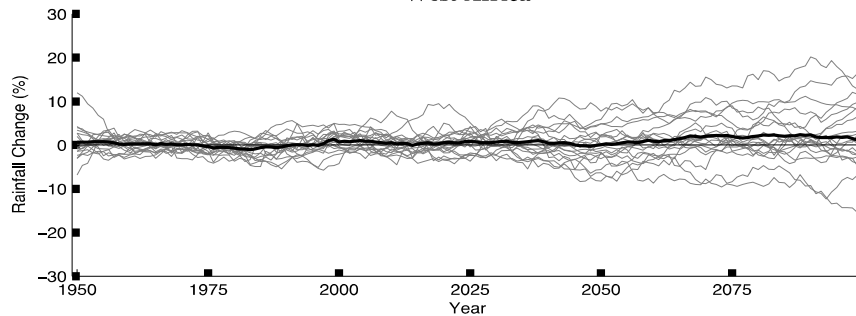
## Uncertainty Remains Large



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### West Africa



CC > More erraticity, exacerbation of current climate variability

"A global perspective on African climate" in *Climatic Change*  
[Giannini, Biasutti, Held and Sobel]

## How do we support Adaptation under Uncertainty?



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- One solution: Prepare for the Unknown
- Improve Decision-Making under Uncertainty
  - Equip farmers and policy makers with climate information, early warnings and forecast to guide, inform and support their decision-making under uncertainty
  - Strengthen preparedness at timescales of the week, season to year

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## Climate Services 101: Back to Basics



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### Premise: Information is Power



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## Rationale: Why Climate Services for Farmers?



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### Farmer Early Actions Across Time Scales

**READY!**

**Seasonal**

- Select cultivars
- Purchase appropriate seeds
- Choose alternative livelihoods
- Sensitize Community

**SET!**

**Mid-Range**

- Anticipate wet/dry spells, variations in temperature
- Manage risk in harvest operations
- Plant / Clear fields
- Warn Community on Hazards

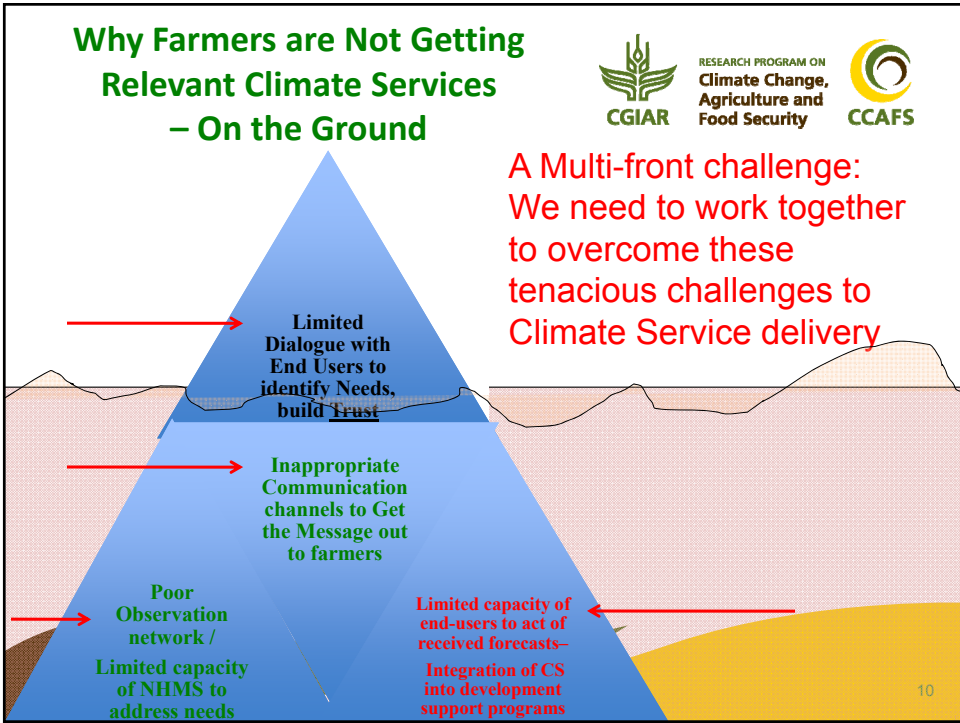
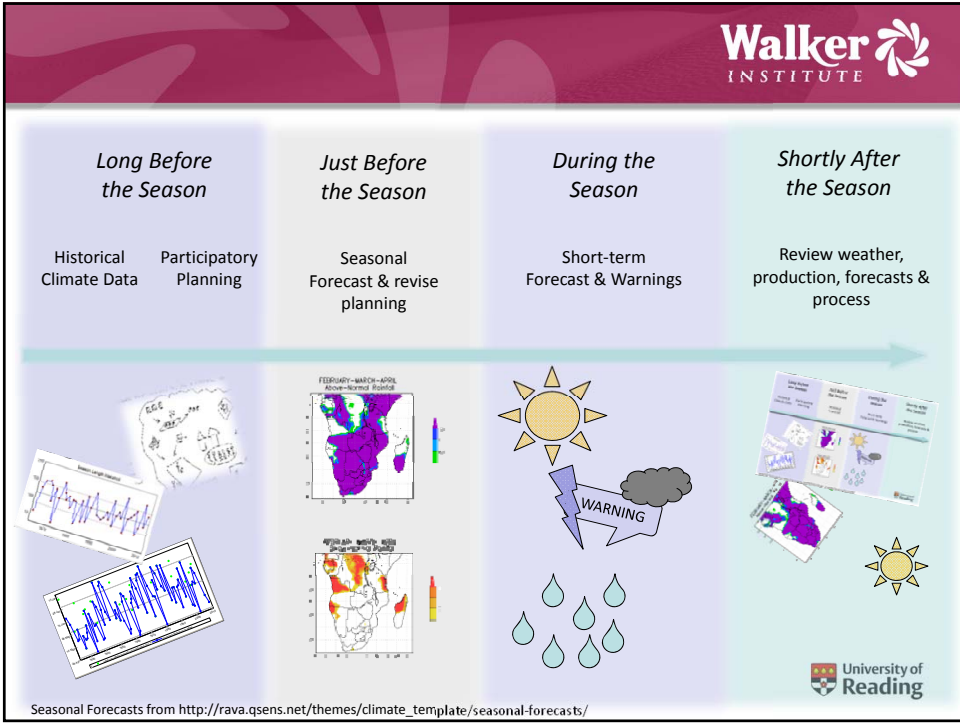
Access to relevant climate information can Empower farmers to anticipate and confront climate-related risks and opportunities

**GO!**

**Short-Range**

- Determine right harvest time
- Decide timing of pesticide/fertilizer application
- Evade crop losses
- Evacuate Community

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## Challenges to Realizing Potential of Climate Services for Farmers



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***Salience:*** tailoring content, scale, format, lead-time to farm decision-making

***Legitimacy:*** giving farmers an effective voice in design and delivery

***Access:*** providing timely access to remote rural communities with marginal infrastructure

***Equity:*** ensuring that women, poor, socially marginalized benefit

***Integration:*** climate services as part of a larger package of support



## 18 Good Practice Cases from Africa to South Asia



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Delivering tailored 5day agro-met advisories for 3+ million farmers in India's Integrated Agromet Advisory Service Program



Involving farmers through rain gauges in Mali's 30-year Agromet advisory program



**MISSION POSSIBLE**  
More at:

[scalingup.iri.umd.edu](http://scalingup.iri.umd.edu)

CYMMIT: Delivering on Farmers' Information Needs in the Indo-Gangetic Plains of India



Cell-phone based information service delivery in Uganda Grameen Foundation's "Community Knowledge Workers" Project

Farmer Seasonal Forecast Training in Wote, Kenya



Kaffrine: Putting downscaled climate forecasts into farmers' hands



Lushoto: Co-producing climate services with farmers





### ***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.**



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

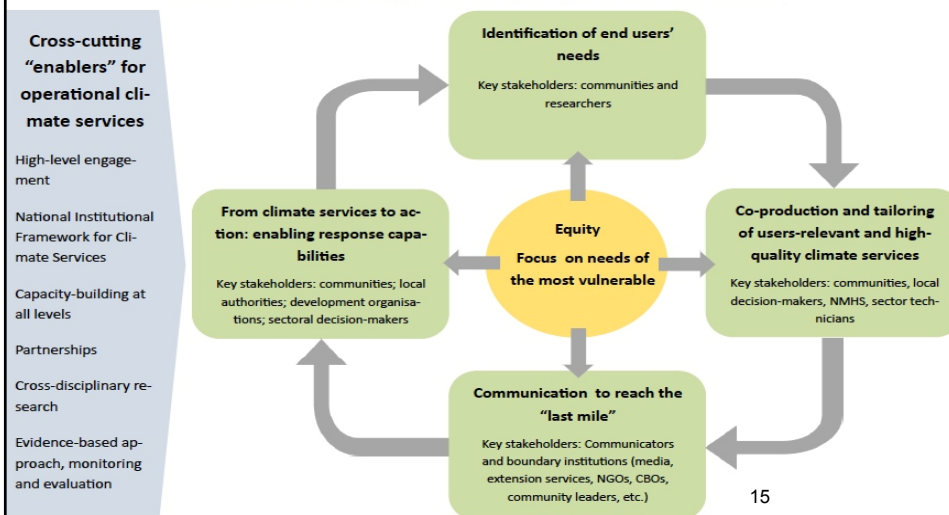
## Blueprint for Scaling up Climate Services for Millions of Farmers



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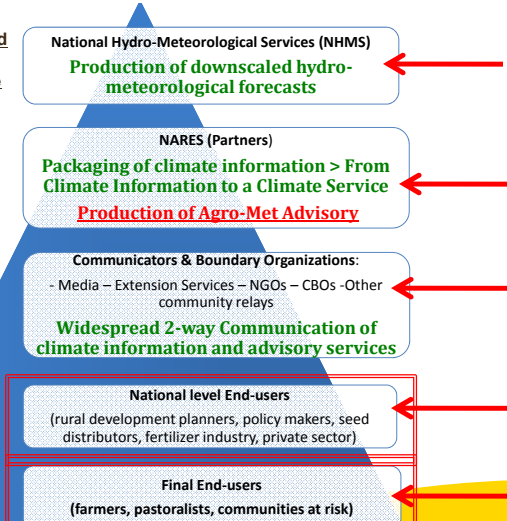


Framework for operational climate services for vulnerable people, communities and institutions that support them (adapted from Tall, 2013)



## Building the National Chain of Climate Services

Fig. 1: Different stakeholders and roles in national Chain of Climate Service Production, Tailoring and Communication



Source: Tall 2013

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## #1: Leveraging ICTs to Reach 'the last mile'

Salient communication channels identified to reach most vulnerable:

- ✓ SMS in local language
- ✓ Forecast bulletin boards in strategic outposts across village
- ✓ Community relays/boundary organizations (NGOs, CBOs)
- ✓ At village mosque
- ✓ At water boreholes (women)
- ✓ Rural radios, media professionals



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Credit: Francesco Fiondella, IRI



Credit: Arame Tall, CCAFS

## #2: Training Intermediaries to Communicate Climate Services at Scale in East Africa



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A Guidance Manual on Training  
Intermediaries to Communicate Climate  
Services with Farmers

The Trainers of Trainers Sourcebook



As part of a new CCAFS-World Vision collaboration, Dr. Jim Henson trains World Vision staff on communicating forecast uncertainty to farmers (Same, N. Tanzania). Credit: A. Tall, CCAFS

### #3: Testing Principles of Co-Production in Kaffrine



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Opening Spaces for iterative dialogue, interaction and **Co-production of climate service**

PAR > key to success

- involving communities (community diaries of local CC impacts)
- Capturing local innovation (forecast bulletin boards, SMS language)

Results of Kaffrine gender research end project assessment

- Increase in access, from handful in 2011 to 100% by 2012
- Demonstrated Usefulness of received information, for all products across timescales
- Added value to traditional forecasts



Soxna Ndao, Dioly Village, stating: 'We women, need information on when the rainy season will stop, as men plant for us later in the season. Credit: A. Tall

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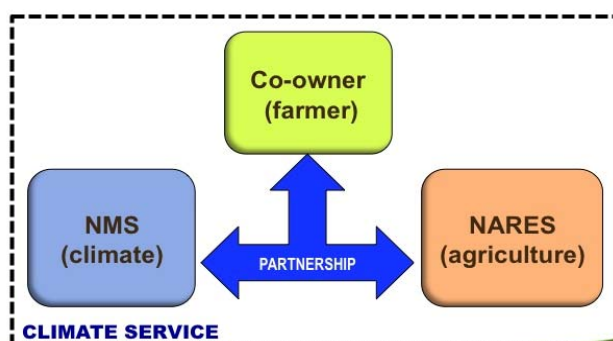
### Institutional arrangements for salience?



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- Limitations of supply-driven climate services
- Expanding the boundary to agricultural research and development
- Expanding the boundaries to give farmers a voice



Courtesy: J. Hansen,  
CCAFS/IRI

## #4: Focus on Equity

Identify specific climate service needs of women and other underserved groups  
Place specificity of farmers' needs



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Climate Service Needs of women farmers in Fass (Left) different from those in Dioly Right). Credit: Tall, CCAFS



## #5: Evaluating outcomes: Does climate information matter? Testing in India, Kenya, Senegal

Accueil » Actu & Blog »

Developing a methodology to evaluate climate-services for farmers



How valuable are climate-information services to farmers? And how can they be upscaled? These questions formed the topic of a recent workshop, where experts took help from farmers in finding the answers. (efficher Forêt)

aoû 15, 2013  
par  
Arame Tall and Catherine Vaughan  
Étiquettes  
Senegal climate-information  
Thèmes  
Climate Risk Management  
Régions  
West Africa

A workshop held in May aimed to create a monitoring and evaluation methodology

Facebook Twitter



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USAID  
FROM THE AMERICAN PEOPLE



Climate Services  
Partnership

### 3 Objectives of Assessment:

1. To inform design of new climate services and projects;
2. To identify current gaps, and improve project effective and service delivery for farmers;
3. To assess impact of provided services on farmers, and demonstrate project impact with a dollar value (towards outcome reporting).

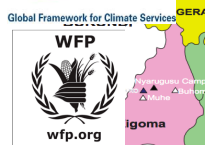


## #6: Pulling the Pieces Together GFCS in Tanzania, Malawi

Reach ~10 M farmers +  
pastoralists in Tanzania,  
Malawi



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Addressing bottlenecks

National framework for  
Climate Services

Capacity of NHMS to  
provide farmer-relevant  
information

Evaluating impact by  
2016

Training NGOs and  
agricultural extension



## CCAFS OBJECTIVE:

**10M farmers by 2016**

*equipped with tailored climate services for improved management of climate risks*



## Climate Services 2015-2020: Research Questions



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- RQ1: **Measuring Impact**: Does tailored climate information and advisory services build farmers' resilience? If so, HOW and UNDER WHICH CIRCUMSTANCES? (long term ex-ante experiments demonstrating use and value)  
**Enabling Institutional Framework (brokering partnerships)**
- RQ2: **Gender and Equity** considerations in the design of Climate Services for farmers: What added-value when female farmers and other marginalized groups are targeted in service delivery?  
**Gender and Equity in Design & Service Delivery**
- RQ3: **Enabling Institutional Framework**: Which methods to broker effective partnership between NHMS and NARES at national/regional levels for production and delivery of tailored climate services for farmers and food security decision-makers?
- RQ4: **Delivery at Scale (ICT-based and through Intermediaries)**: How to deliver information services at scale to reach millions of farmers? ICT-based technology and capacity building needs to impact at scale  
**Climate Services for Livestock / Fishing Livelihoods**
- RQ5: Climate Services in support of **Livestock / Fishing Livelihoods**

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## Additional Resources



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- **Join the CGIAR Climate Services Community of Practice!**
  - ❑ <http://cscop.iri.columbia.edu/community-members.html>
- **Online Resources**
  - ❑ Climate Services for Smallholder farmers:  
<http://ccaafs.cgiar.org/climate-services-farmers#.U430S6PD9kQ>
- **Publications**
  - ❑ Scaling Up Climate Services for Farmers in Africa and South Asia:  
<http://cgspace.cgiar.org/handle/10568/27833>
  - ❑ Developing a Methodology to Evaluate Climate Services for Farmers: <http://cgspace.cgiar.org/handle/10568/33442>

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