

# Info Note

## Strategies for Achieving Gender-Responsive Climate Services

*Tatiana Gumucio, James Hansen, Sophia Huyer, Tiff van Huysen, Saroja Schwager*

OCTOBER 2018

### Key messages

- Rural climate services can provide benefits to both women and men by addressing gender-based challenges that prevent access to and action on weather and climate information.
- Working with women's groups and identifying gender-based preferences for use of information and communication technologies (ICT) can be important pathways to enhance women's access to communication channels.
- To address gender-based access constraints, it is important that interventions include partners experienced in promoting gender equality in decision-making spaces.
- It is critical to provide weather and climate information that is relevant to both women and men farmers' needs.
- Collaboration with rural development initiatives that promote women's empowerment can be key to supporting women farmers who may have limited capacity to act on information.

Climate services can be critically important to smallholder farmers' livelihood management strategies; however, they risk reinforcing the gender-based inequalities that are prevalent in other institutional structures if the services fail to understand and effectively target women's needs. Climate services benefit a farm or pastoral household when the information is accessed and used to modify climate-sensitive agricultural or livelihood decisions in a manner that improves livelihoods or food security or meets some other objective of the household. Climate services can also benefit farmers at an individual level, for example, by helping to increase confidence in decision-making. Women and men may face differing challenges

with respect to access to and use of climate services due to gender-based factors. Truly gender-responsive climate services will seek to address these challenges.

Lessons and findings from past and ongoing research and practice serve as guideposts for developing more gender-responsive climate services. Five potential solutions are highlighted below. The first three solutions address gender-based challenges to access. The last two concern the use and incorporation of weather and climate information in agricultural and livelihood planning.

### Develop ICT-based communication channels appropriate to women's needs

Although ICTs may be particularly useful for communicating information on a weather timescale, women may face gender-specific limitations to access and control ICTs and communication assets. For example, limited finances can often inhibit women from owning radios and cellular phones. Also, due to differences in literacy (technical or otherwise) and schooling levels, men may be better able to interpret ICT formats (Gumucio et al., 2018). Household labor responsibilities can limit women's time available to listen to media-based services as well.

When using ICTs and related media to disseminate climate information, it is important that project planners consider women's preferences for communication channels. This entails taking advantage of different types of locally-relevant information sources and formats available (e.g., SMS messaging, radio, meteorological blackboards, influential people). It can also be helpful to identify key contacts in the community. For instance, women who own their own cell phone can share information received with other female family members and friends (GSMA, 2012). Similarly, interventions should

ensure that use of ICTs or media devices is compatible with women's livelihood activities and/or saves time (USAID, 2012).

An example of this strategy in practice is the CCAFS project "Climate services for agriculture: Empowering farmers to manage risk and adapt to a changing climate in Rwanda," which uses baseline research on men's and women's asset control and access to communication channels to design ICT or media-based communication tools that enable farmers to access climate information (Nsengiyumva et al., 2018). One of the communication channels developed are interactive radio programs, where listeners have the opportunity to call in with requests for additional explanations of the agro-climatic information presented.

### **Include women's groups and information-sharing mechanisms as communication channels**

Sociocultural norms and institutions concerning cross-gender interactions, space, and mobility can limit women's participation in groups where climate information is shared. Specific membership requirements (e.g., membership fees, land ownership, head of household) can prevent women from participating in farmers' groups and cooperatives. In addition, beliefs about gender segregation can restrict women from participating in social activities and services (e.g., discussions, meetings) that provide information and/or training, especially in the presence of men. Similarly, agricultural extension officers may be challenged to reach women, particularly in socio-cultural contexts where a male officer is not allowed to meet with a woman without a male family member's consent and/or presence.



*Training workshop in Bihar, India for local women leaders on gender, climate change and agriculture. Photo: Alternative Futures*

While institutional biases and gender-based differences in access to group processes can limit women's access to

technical information, training, and support, including women's groups as communication channels can be an important way to respond to these challenges. For example, a women-managed Village Knowledge Center (VKC) in Pudupatti, a village in the Indian state of Tamil Nadu, has helped to complement and translate information disseminated via extension services to local women farmers. The VKC is particularly successful in making agro-advisories accessible to women given its local presence and role as a familiar source of information (Rengalakshmi et al., 2018).

Women "communicators" and more gender-sensitive techniques in group processes can facilitate women's access to climate information as well. In the Indian village of Kannivadi, women farmers' interest in the Integrated Agro-meteorological Advisory Service (AAS) and other agricultural information was enhanced by the activity of a woman volunteer who recorded weather data from a manual weather station. Her interactions with other women farmers in the village increased awareness of and enthusiasm for AAS (Venkatasubramanian et al., 2014).

### **Connect with local and civil society organizations to address norms that constrain women's access**

Enhancing women's access to male-dominated groups and environments may depend upon shifts in gender-based power dynamics at household and community levels. To address this challenge, interventions can seek to partner with local and civil society organizations with experience in social change processes concerning gender roles and behaviors.

An example in progress is the CCAFS project "Agro-Climatic Information Services for women and ethnic minority farmers in South-East Asia" (ACIS), which aims to enhance the accessibility and actionability of agro-climate information to smallholder farmers, particularly women and ethnic minorities. To this end, the World Agroforestry Center (ICRAF) and CARE International have partnered to implement the project. Both organizations have significant experience carrying out climate resiliency initiatives with farmers in the region. In particular, CARE has led an Ethnic Minority Women's Empowerment project and related interventions in Vietnam and contributes tools and approaches for engaging men and promoting women's participation in decision-making forums relevant to the ACIS project (CARE International, 2015).

### **Meet women's climate information needs**

Gendered labor roles and responsibilities can influence the resources and decision-making processes under women's and men's control. These dynamics, in part, determine the types of climate information that will be

most useful to women and men. Additional socioeconomic attributes such as life stage and ethnicity can also affect women and men farmers' information needs and preferences.

In response to these challenges, it is important that the design of climate services incorporate methods for identifying and targeting the information needs of women specific to the site of intervention. For example, an intervention in Kaffrine, Senegal used participatory action research (PAR) methods to compare women and men farmers' needs and preferences for information on droughts and rain cessation. The difference in information needs was influenced by women's tendency to plant later in the season. Local social norms dictate that women work on men's plots before their own and wait to use men's farming equipment (Tall et al., 2014a; Tall et al., 2014b). These and other findings were used to develop guidelines for providing more salient climate information to women. The guidelines were then used by Senegal's National Meteorological Service to develop targeted early warning advisories and hazard surveillance measures in Kaffrine (Tall et al., 2014b). Frameworks such as the Livelihoods as Intimate Government (LIG) approach can also be helpful in differentiating women's and men's information needs within the context of vulnerabilities to climate risk and stress (Carr et al., 2016).

### **Integrate climate services with rural development efforts that seek to overcome women's resource constraints**

Women's capacity to act on climate information can be inhibited by limitations in resource access and participation in decision-making. Men, more often than women, tend to own necessary farming equipment, livestock, and land. Further, entrenched sociocultural norms regarding both agricultural and household roles and responsibilities can prevent women from participating in decision-making processes relevant to addressing climate risks. These represent challenges that may be difficult for climate services alone to address.

One potential solution to this problem is to integrate climate services with rural development efforts that seek to overcome women's resource constraints. While limited cases exist in the climate services sector, examples from agricultural interventions in Nicaragua and Myanmar highlight several key strategies to overcoming these constraints.

Los Artesanos del Café de Nicaragua (CAFENICA), an umbrella association of 10 smallholder coffee producer organizations in Nicaragua, has worked to address the problem of women's limited land ownership through engagement with government institutions. While women have the right to buy land, they frequently lack the necessary credit to do so. This minimal access to and

control of land limits their ability to participate in both farming organizations and trade activities. In response, CAFENICA has focused on securing funding from the Nicaraguan government to provide women with credit to buy their own land (Twin, 2013).

The MYNutrition project in Myanmar works to address the sociocultural norms that affect the distribution of food in rural households. While fish is a cheap animal source food, it is more difficult for poor, rural households to afford on a regular basis. When fish is available, men are more likely to consume it because they fall higher on the household food consumption hierarchy. As a result, women and children are more likely to suffer from undernutrition. The project, led by WorldFish, partners with Myanmar's Department of Fisheries and the national chapter of Pact, an NGO that focuses on enhancing local ownership and participatory decision-making. Both rural men and women are given training in small-scale aquaculture to increase the availability of small, micronutrient-rich fish for all household members. Ultimately, the project aims to improve household consumption of fish, in particular among women and children, as well as increase household income (WorldFish, 2017).

### **Conclusions**

Despite several gender-based challenges to women's access to and use of climate services, gender-responsive rural climate services are possible through the application of a few key strategies. Development of ICTs appropriate to women's needs and inclusion of women's groups in communication channels can help enhance women's access to climate and weather information. Partnerships between local and civil society organizations will be important in addressing sociocultural normative structures that restrict women's access to information and resources (e.g., natural, financial). Meeting women's climate information needs is critical to enable women's use of weather and climate information in agricultural and livelihood planning. Finally, collaboration with robust initiatives on sustainable rural development will be key for overcoming the extreme resource and decision-making constraints faced by some women. Such combined efforts on the part of researchers and practitioners are critical to ensuring that climate services truly serve the needs and interests of women and men smallholder farmers most vulnerable to climate-related risk.



## Further Reading

- CARE International. 2015. [CARE International in Vietnam: Ethnic Minority Women's Empowerment](#).
- Carr ER, Fleming G, Kalala T. 2016. Understanding women's needs for weather and climate information in agrarian settings: The case of Ngetou Maleck, Senegal. *Weather, Climate and Society* 8: 247-264.
- GSMA Women Programme. 2012. *Striving and Surviving: Exploring the Lives of Women at the Base of the Pyramid*. London: GSMA.
- Gumucio T, Hansen J, Huyer S, Van Huysen T, Schwager S. 2018. [Identifying Pathways for More Gender-Sensitive Communication Channels in Climate Services](#). *CCAFS Info Note*. Wageningen, Netherlands: CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS).
- Nsengiyumva G, Kagabo DM, Gumucio T. 2018. [Exploring pathways for gender-responsive climate services in Rwanda](#). Poster presented at the *Gender Summit-14 Africa*, Kigali, Rwanda.
- Rengalakshmi R, Manjula M, Devaraj M. 2018. Making climate information gender sensitive: Lessons from Tamil Nadu. *Economic and Political Weekly* LIII 17: 87-95.
- Tall A, Hansen J, Jay A, Campbell B, Kinyangi J, Aggarwal PK, Zougmore R. 2014a. [Scaling up climate services for farmers: Mission Possible. Learning from good practice in Africa and South Asia](#). *CCAFS Report No. 13*. Wageningen, Netherlands: CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS).
- Tall A, Kristjanson P, Chaudhury M, McKune S, Zougmore R. 2014b. [Who gets the information? Gender, power and equity considerations in the design of climate services for farmers](#). *CCAFS Working Paper No. 89*.
- Twin. 2013. *Empowering Women Farmers in Agricultural Value Chains*. London, U.K.: Twin.
- USAID. 2012. [Gender mainstreaming in ICT for agriculture](#). *Briefing Paper*.
- Venkatasubramanian K, Tall A, Hansen J, Aggarwal, PK. 2014. [Assessment of India's integrated agro-meteorological Advisory Service program from a farmer perspective](#). *CCAFS Working Paper No. 54*. Wageningen, Netherlands: CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS).
- WorldFish. 2017. *'No More Food Worries': The Big Benefits of Small Fish Farming*. Penang, Malaysia: WorldFish.

*This brief summarizes findings of a review of literature and CCAFS experience on gender-related challenges in rural climate services.*

**Tatiana Gumucio** ([tgumucio@iri.columbia.edu](mailto:tgumucio@iri.columbia.edu)) is a Postdoctoral Research Scientist with CCAFS Flagship 4 and is based at the International Research Institute for Climate and Society (IRI), Palisades, New York, USA.

**James Hansen** ([jhansen@iri.columbia.edu](mailto:jhansen@iri.columbia.edu)) is CCAFS Flagship 4 Leader; and a Senior Research Scientist at the International Research Institute for Climate and Society (IRI), Palisades, New York, USA.

**Sophia Huyer** ([s.huyer@cgiar.org](mailto:s.huyer@cgiar.org)) is CCAFS Gender and Social Inclusion Research Leader.

**Tiff van Huysen** ([tlv2106@columbia.edu](mailto:tlv2106@columbia.edu)) is an instructor at The Earth Institute Center for Environmental Sustainability, Columbia University, New York, USA.

**Saroja Schwager** ([ss5351@columbia.edu](mailto:ss5351@columbia.edu)) is a graduate student in the M.A. in Climate and Society program at Columbia University, New York, USA.

*The views expressed in this brief are those of the authors, and are not necessarily endorsed by or representative of CCAFS, IRI or their cosponsoring or supporting organizations.*

## About CCAFS Info Notes

The CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS) is led by the International Center for Tropical Agriculture (CIAT). CCAFS brings together some of the world's best researchers in agricultural science, development research, climate science and Earth System science, to identify and address the most important interactions, synergies and tradeoffs between climate change, agriculture and food security. Visit us online at <https://ccafs.cgiar.org>.

CCAFS Info Notes are brief reports on interim research results. They are not necessarily peer reviewed. Please contact the author for additional information on their research.

## CCAFS is supported by:

