Overcoming Gender Barriers to Accessing and Using Climate Information Services

Presentation Transcript

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Julie McCarty: Hello, everyone. On behalf of Agrilinks Feed the Future, and the USAID Bureau for Food Security, I would like to welcome you to our webinar today on Overcoming Gender Barriers to Accessing and Using Climate Information Services.

We're going to have a great discussion today about gender-related differences in climate information needs, access, and use, and the downstream effects of these differences on climate adaptation responses and longer-term resilience.

My name is Julie McCarty. I am a knowledge management and learning specialist with the USAID Bureau for Food Security. And I will be your webinar facilitator today. So you'll hear my voice periodically, especially during our question and answer session.

Before we dive into the content though, I would like to go over just a few items to quickly orient you to the webinar. First, please do use the chat box to introduce yourself and let us know where you're joining from. And I can see that many of you have done that already, so thank you very much.

The chat box is your main way to communicate today. So we encourage you to use it to post questions at any time, to share resources, and to discuss the topic with your colleagues. We'll be collecting your questions throughout the webinar and we'll answer some of them in the chat box along the way. And we'll hold others until after the presentation.

You'll see that the slide deck is right now available for download in the box on the left of your screen that says file downloads if you'd like to grab a copy of them right now. But they will also be posted on the Agrilinks event page a little bit later.

And lastly, we are recording this webinar and we'll email you the recording, the transcript, and any additional resources that are suggested throughout the webinar once they are ready. So keep an eye out for that in your inbox.

Okay. Well, I am going to go ahead and introduce our speakers and then we can get started with the webinar.

First up will be Krista Jacobs, who is the senior gender advisor in the USAID Bureau for Food Security. And she will provide an introduction to the topic and its importance to global food security.

Next up will be Elizabeth Bryan, who is a senior research analyst in the Environment and Production Technology Division at the International Food Policy Research Institute. And her current work focuses on tradeoffs and synergies across the intersection of climate-smart agricultural production, nutrition, gender, and environment.

Then we will welcome Tatiana Gumucio, a post-doctoral research scientist at the International Research Institute for Climate and Society at Columbia University. Tatiana is involved in investigation of the causes of gender differentials and access to and use of climate-related information and the factors and conditions that can contribute to gender-transformative climate information services.

And then lastly we will have Kristin Lambert, Mercy Corps program manager for climate change and resilience research on their research and learning team. And in this role she provides technical and programmatic support to grants focused on climate information services and resilience learning.

So we've got a really great lineup of speakers to discuss this topic today. And first off I will pass the microphone over to Krista Jacobs.

Krista Jacobs: Hi. Thanks, Julie. Good morning, afternoon, and evening, everyone. As Julie said, I am the senior gender advisor in the Bureau for Food Security in USAID. Thank you for joining us and thank you to our speakers, Elizabeth, Tatiana, and Kristin.

We often use the term climate-smart agriculture. And we talk about how climate-smart agriculture is essential for agricultural systems to be productive, sustainable, less risky, and more resilient. But today I want to reframe and think about climate-smart farmers. These are the people who we want to be able to proactively manage both natural resources and risk. These are the people whose resources and decisions shape their productivity both in the short-term and long-term as they are experiencing climate-related shocks and changes.

To be a climate-smart farmer, the person needs to have information and also be able to apply that information. With the Global Food Security Strategy and the new research strategy that accompanies it, we are increasingly turning our attention to the question of what are the things that need to happen for all of these good agricultural practices and technologies to be widely used so that we can have food security impacts at the individual, household, community, national, and global levels. So how do we get that information out there and used, and is it the right information? At the same time, we also need to remember that women are a substantial part of these farmers who we want to support to be climate-smart. In sub-Saharan Africa only for crops, not thinking about livestock, depending on the country women may be supplying as much as a quarter to a half of the labor.

If they don't have the demand for climate information like forecast, pest, disease management, and pest warnings or they don't know that that information is available or how to get it or if they're not able to use it, they are less able to manage that risk and to have good production and good incomes.

So today our speakers are going to talk about their work, about how women and men farmers perceive changes in climate, where they get information about how to manage the effects of the variability, of the risks, and how women and men are able to apply that information. So I look forward to the discussion and now I'll turn the microphone over to Elizabeth.

Elizabeth Bryan: Great. Thanks, Krista. Hello everybody online. Thanks for joining us. My role here today is to try and frame this issue of gender and climate information in the sort of broader context of gender and climate change. And so I'm going to start by giving some motivation for why it's important to think about gender and also nutrition

issues in relation to climate change, and then I'm going to give an overview of a framework that we developed at IFPRI that highlights the linkages between gender, climate change, and nutrition. And then I'm going to emphasize gender and climate change linkages in this presentation, but it's important to also highlight that climate change and climate changes responses have implications for nutrition and gender issues also intersect with the pathways from agricultural production to nutrition outcomes.

And finally I'm going to zero in on where climate information fits into the overall framework and present some data on gender differences and access to climate information and knowledge and adoption of climate-smart practices.

So gender and nutrition are two key areas worth paying extra attention to in climate change programs and interventions. And why is that? Well, one reason is that it's important for the sake of equity. Programs should ensure that both men and women are benefiting and that there are no unintended harmful impacts being felt by any particular group of people. In addition, research suggests that paying attention to the gender and nutrition implications of policies and programs may increase their effectiveness.

In the case of climate-smart agriculture or CSA, paying attention to gender and nutrition also has the potential to achieve other development outcomes such as improved nutrition and health or women's empowerment in addition to maximizing gains across the three pillars of CSA, which many of you know are productivity, adaptation, and mitigation.

So because integrating all these cross-cutting themes like resilience, climate-smart agriculture, gender, and nutrition can be quite complex, at IFPRI we developed a framework to facilitate decision-making around these issues by illustrating the linkages between resilience to climate change, gender, and nutrition.

And this framework draws on a review of the literature on gender and climate change, on the literature on agriculture to nutrition pathways, climate change and nutrition, and resilience literature. And this review found that most studies often

integrate one or two of these topics but usually not all three. And so this framework identifies and integrates the key elements from all these different bodies of literature in one place.

So starting on the left-hand side, the first element in the framework is the climate signal. And this includes things like climate variability, climate shocks like droughts and floods, as well as long-term climate stressors.

And the impacts of climate shocks and stressors are filtered through several elements in this framework. And these include absorptive and adaptive capacity, in the green box. So adapted from the resilience literature, we define absorptive capacity as the sensitivity of people at various scales to shocks and stressors given their current livelihood activities, infrastructure, resources, and other factors.

Adaptive capacity is the ability to respond to shocks and stressors. And as you can see in the gray box in the middle, these responses can be categorized in terms of coping responses, risk management responses, adaptive responses, and transformative responses. And the funnel in between these two elements, that yellow funnel there, indicates that absorptive and adaptive capacity determine the range of response options that decision makers have. So that low absorptive and adaptive capacity means that people may have more limited response choices available to them.

Another key factor that determines people's responses to climate shocks and stressors is the decision-making context. So people have different preferences, different needs and priorities. And their ability to meet those needs depends on their bargaining power and control. And particularly when the interests of different actors are not aligned, this is important.

At the bottom of the gray box we have highlighted several different pathways through which response choices can influence development outcomes. And these include things like food production, income changes, asset dynamics, and labor allocation. And these changes affect the broader food, social, health, and living

environments, in the outcomes box, and also key outcome indicators such as food and nutritional security, gender equality, health status, and environmental security.

It's important to point out that there are tradeoffs across these outcomes and across different groups of people. So for example, new climate-smart approaches may increase the labor burden of one group of people more than another. And responses to shocks and stressors affect greenhouse gas emissions, which can contribute to future climate change, which is shown by the arrow on the top. And similarly, outcomes that are experienced today can affect absorptive and adaptive capacity to respond to future shocks and stressors as indicated by the arrow on the bottom.

So this whole framework is really dynamic and illustrates this concept of resilience being a sort of changing set of capacities over time as people respond to the shocks and stressors that they're experiencing.

So you might be thinking, well, where is gender in this framework? Gender can be found pretty much in almost all of the elements of this framework. There are differences between men and women in terms of their ability to absorb and adapt to shocks and stresses. So that's the circle over the absorptive and adaptive capacity box. Also men and women have different preferences and needs for how they respond to shocks and stressors, although women tend to have less bargaining power and control over decisions at home and in their communities. And women also tend to be less represented in policy decision-making circles.

And the impact of climate shocks and stressors and the responses to them can also affect men and women different, leading to an increase in gender equity or greater gender inequalities.

And finally, the differences between outcomes for men and women today can then lead to different capacities to respond to future shocks and stressors.

So there are many barriers to adoption of practices for climate-smart agriculture. And these factors determining adaptive capacity are different in every context. Some factors may be more of a constraint in some settings that in others. In general we find that women tend to face greater barriers to responding to climate shocks and stressors. And these kinds of barriers are listed here in terms of women tend to have less access to and control over assets. They may have different perceptions of climate change. And I'll talk a little bit more about how women tend to be less likely to perceive climate change. They also have different access to labor. They have more difficulty in many cases participating meaningfully in groups or they may be prohibited from adopting certain practices that are considered not appropriate for them. So social norms and institutions are also important. And they have limited decision making authority, as I mentioned, at home and in the community.

Access to information about climate change and having access to information about the appropriate responses is one of the key determinants of adaptation that has been found across many studies. Because by definition climate-smart agriculture isn't climate smart unless it's informed by climate science. So information is really critical.

And what we find is that data from multiple different case studies around the world tend to show that women are often at a disadvantage with respect to access to information.

Given that men and women have different preferences for adaptation responses, they need access to information that meets their particular needs. The responses that are chosen have different implications for men and women, importantly. So if women don't have access to information and they're able to adopt practices that meet their needs, then we may see an increase in the gender gap in agriculture.

So what does the data show? To illustrate the importance of the gender gap and access to climate information, I'm going to present some results from an inter-household survey that was carried out in selected sites in Kenya, Senegal, and Uganda under the CGR Program for Climate Change, Agriculture, and Food Security.

And this survey asks men and women in the same household the same set of questions related to things like perceptions of climate change, adaptation responses, access to information, experience with shocks and other factors and other issues.

And we know that people tend to adopt practices based on how they perceive the climate to be changing and the way they perceive these things over their own experience. Climate information can help influence people's perceptions of climate risks, especially about which climate changes they can expect in the future and the range of response options to address these future challenges.

And here in these images I present men's and women's perceptions of the climate changes they have observed over their lifetimes. The data show that in general across all the sites women tend to be less likely to perceive climate change. And the case of Senegal on the left here really illustrates that. Women are less likely to perceive all of the climate changes that are listed in this figure.

However, in the case of Uganda we found that sometimes men and women are equally likely to perceive that there has been climate change, but they actually report different changes. So here women are more likely to perceive an increase in droughts and temperature, while men were more likely to report that they had experienced rainfall changes.

And so moving on to looking at information. This table shows the level of access to different sources of information for men and women across the four sites. And the teal color, or the dark blue color on this screen, shows that men are more likely to have access to the information source. And the green color shows where women are more likely to have access to the information source. So rather than running through all the different sources of information, in particular just look at the broad trends. And in general we see that women tend to have less access to most sources of information, including many formal sources of information like extension agents or NGOs.

There are also differences across countries that are important to point out. Women in Kenya seem to have somewhat better access to information compared to the other

two sites. But in general in some sites like Kaffrine in Senegal we see very low access to information for both men and women.

And what this translates into is that given less access to information, we find that women tend to be less aware of a range of climate-smart agriculture practices. So the practices are listed on the left. And again, the dark blue indicates where men are more likely to be aware of the practice and the green shows where women are more likely to be aware of the practice. So we find somewhat greater awareness of several practices among women in the sites in Kenya, whereas we showed in the last table women tend to have somewhat better access to some sources of information.

And in this table – well, before I get to the table, in general the data show that adoption rates of many climate-smart practices are low among women. Especially compared to men. This table shows actually adoption rates among men and women across the four sites when men and women are actually aware of the climate smart practice. So this is conditional on awareness of the practice.

And as you can see, there's a lot more green in this table. And this means that when women area aware, they are in many cases more likely than men to adopt these CSA practices. And often we find this pattern of adoption relates to women's gender roles in these contexts. So women are more likely to adopt practices such as water harvesting, improved grain storage, and improved livestock feed management.

And just to wrap up and move into the more specific presentations about gender and climate information, the interhousehold data show that there are differences in the ways that men and women perceive climate change and respond to climate change. And while there are many constraints, as I highlighted, to responding to climate change – and all of these have important gender differences – access to climate information is often a barrier that we find across many, many different contexts, especially for women. And so what this means is that more work is needed to ensure that information reaches women and that this information meets their specific needs and preferences for adaptation. And I think we're going to hear more in the presentation later about some approaches to really be able to do that more effectively.

So addressing these gender gaps and access to climate information potentially has really large payoffs by increasing uptake of appropriate response options and by enabling women to contribute to greater household and community resilience to shocks and change.

And now I will turn it over to Tatiana, who is joining us from online. Thank you very much.

Tatiana Gumucio: Thanks very much, Elizabeth. Hello and thanks to all of you for this opportunity to participate in the webinar with all of you. This is a really great and important topic to be addressing.

As mentioned, I will be presenting on a review that we have been carrying out at International Research Institute for Climate and Society with the CGIAR research program on climate change, agriculture, and food security on what's the knowledge base with respect to gender and climate services. In particular through this review we have been really seeking to assess the evidence about gender differences and access, use, and benefits from climate services for farmers in the developing world. And then from this nuanced understanding of the knowledge base, to be able to start identifying some potential pathways for making climate services more responsive to gender and equality.

And so just to briefly present some of the topics that we'll be going over, first off I'll be introducing a bit of what publications were included in the review and then going into a deeper discussion of what we are learning so far from the existing literature on gendered access to climate services.

And here I just want to explain that with access, we're thinking of access as addressing various aspects, one of them being accessibility of communication channels. And then another has to do with demand, which I'm getting into a little bit later. And then from here we'll be going into a deeper look at what we can learn from the literature with respect to gender use of climate services. And here again just

explain a bit more. When we're thinking about use, we are thinking about how women and men are being able to act on or use climate information to make changes in farming or livelihood management. And then we'll be presenting some conclusions that we are developing so far from the review.

So we've been including publications from peer review journals. However, we've also been including reports and working papers that are related to these main issues of how gender is influencing access to use of and benefits from climate services. Now, from this we have identified so far a total of 39 publications that are relevant to these issues. And you can see here that most of them are addressing the sub-Saharan African region. And there in the chart you can see the breakdown of the countries that are represented in that literature on the sub-Saharan African region and how many publications are addressing each country.

And just an aside. Of course several publications are multi-country. Then to look at the extent to which the topics of interest are being addressed in this body of literature, we see that access is addressed quite frequently and then secondarily use. And really there's a very minimal amount of literature that's addressing benefits at this time. So for that reason in this presentation now we are focusing on the main topics of access and use.

So to get kind of the mental juices flowing with respect to this topic of how gender is influencing access to climate services, here this battle is summarizing some of the information from a few of the publications on the extent to which women and men are receiving different types of weather and climate information. And just to highlight that, the first four studies have to do with baselines. And really all of the studies, all five, are referring to climate information that's routinely available and not studies carried out in the context of well-designed climate services interventions.

And something to highlight is that you can see it can be difficult to identify one major trend, say that men are accessing more than women or women are accessing more than men. In many cases in fact you see that men and women seem to be accessing at similar rates. And here the green is signifying men accessing more _____ and the difference is significant. Orange, vice versa, that women are accessing the information and the difference is significant. However, it is interesting. You see with

regard to information on drought early warning, there is at times a consistent observation that men are accessing the information more than women. But again really a main point to be highlighting from this table is just that really there are underlying factors that are site-specifics that need to be understood with regards to gender, with regards to when there are differences or convergences for example.

So now it could be said that in the existing literature there might be a lack of research that goes a step further than documenting to what extent women and men are accessing climate services. It would be helpful to have more research that gets into analysis of the factors or reasons why there are these gender differences or convergences. However, from the literature that does get into analyzing possible factors, we see that it tends to focus on the influence of accessibility of communication channels, which is – I think there's overlap with some information that Elizabeth was just presenting as well; the importance of what are the sources of information, et cetera.

In particular with regards to literature analyzing the importance of accessibility of communication channels, we see a couple important gender issues emerging more prominently. First off, the importance of how social cultural norms surrounding women's and men's appropriate activities, responsibilities, spaces that they frequent, how this can be influencing differential access to extension services and dissemination of information. And then also how these social cultural norms can be influencing women's and men's time and mobility constraints.

Another issues that arises is the importance of access to group processes. For example, that because of male biases and membership to farmer's groups for example, women may encounter significant barriers and challenges to participate in these groups and access important information. However, from the studies you are also seeing that while the utility of women-specific self-help groups for getting information out to women in a meaningful and helpful way.

Another issue that emerges is the importance of differential access to information and communication technologies as well as radio. Due to financial challenges, also due to differences in technical knowledge, among other factors, women can find

themselves much less than men in control of ICT and therefore are facing some challenges to access different types of information.

So you see from the knowledge base there is not so much research on this demand aspect of access, but a good bit of focus on the accessibility of communication channels.

Now, getting into the issue of use, again, to kind of start getting us thinking about how gender can influence acting on climate information received, here is a table summarizing some of the information from a few of the publications on the extent to which women and men are acting on climate information in their agricultural and livelihood decision-making. And just again to highlight that, the first two studies, those are baseline.

And then the last two actually, for example the one by IFPRI in Ghana, was tried out in the context of a mobile advisory program. And then the very last one, Research in Rwanda, is referring to a monitoring and evaluation study of _____ Participatory Integrated Climate Services for Agriculture. And again, really something to highlight here is that again it's difficult to identify a major trend of say men putting to use the information, or the women, or vice versa. And it's really important to think about the underlying factors that could be influencing the differences or convergences.

So again we see perhaps a lack of research that analyzes, that goes a step further to analyze what could be the reasons, what could be the factors influencing gender differences or convergences. However, from that literature that does get into this, we see an emphasis on this important dynamic of how sociocultural norms can influence men's and women's differential resource control and therefore their capacities to put to use climate information learned in their changes in agriculture management.

Similarly, you can see how sociocultural norms regarding division of labor can influence then the types of decisions that are under women's or men's control and

therefore that can influence the type of climate information that will be more relevant to women or men.

And just to give an example to illustrate this a bit more, you see from a study in Senegal that due to the expectation that women labor on men's plots before they do on their own, women aren't able to access labor and farming equipment until afterwards, and that this influences that women tend to have a preference for climate information on rain succession as opposed to rain onset for example.

So just to start to sum up some of the findings that are coming from this review that we've been doing, we see several important gender issues emerging and how there are affecting access to and use of climate services. For example, the difference in access to group processes and how this can differentially then affect women's and men's access to technical information and training, through participation and farmer's groups for example. However, an important potential solution that's being highlighted in some of the literature is the importance of interventions including women's groups and networks as a means to get climate information to women in a really helpful way.

Then there is the issue of differential access to ICT. And how this can affect women's and men's differing access to routine weather information and advisories. And then also how social norms that influence time and mobility constraints and also access to public information services like through extra local public meetings, how this can also influence women's and men's differing access to mainstream information sources. However, kind of a way forward that's emerging or that's getting highlighted from the studies we've seen is really emphasizing the importance of research that gets to identifying those channels that do serve women and using them, oftentimes participatory methodologies, certain types of participatory methodologies can be most helpful for this.

And then getting at the issues that are important for access, again, we are seeing how social norms and resource control can influence a decision under men's and women's control and then how this can affect the type of information that will be most relevant to women and men. From this we are understanding that it will be

critical for interventions to precepting a strong understanding of women's climate information needs and then develop the means to meet them.

And then finally we are identifying some of the literature that really limited resource control – for example a lack of land control – can influence in this capacity to put into use climate information. And really a way forward for this that will be important is collaboration across sectors in order to address these challenges that can go beyond climate services.

So with that, I am summing it up and look forward to that discussion later on. And thank you gain for coordinating and facilitating the seminar. And I'll pass it on to Kristin.

Kristin Lambert: Thanks, Tatiana. And thank you everyone for joining us. It's great to see so much interest in this topic and it's been really wonderful to hear the research that Elizabeth and Tatiana have been sharing and the complementaries between your findings and what I'm just going to talk about here.

My name is Kristin Lambert. I work with Mercy Corps on the research and learning team with a focus on climate change and resilience. And I'm going to be sharing some insights in particular from the USAID-funded Climate Information Services Research Initiative. And I see many of our colleagues are joining today from, Practical Action, and others in our country offices. So it's great to see that.

Before diving right into our research though, I wanted to start off with just a small story that we heard from one woman farmer that we recently spoke to in Niger when asking her to tell us a bit about how things have changed in her community over the last ten years. And what she told us was, "Before we were just two people working the land, and we produced a lot. Now we can be ten people and there's less produced. Our families are bigger. The community is bigger, but the land is not good. We face so many problems; violent wind, drought. The season is so short now. It is very easy to lose very much."

And this is just one farmer sharing an experience from one village, but I think it's really emblematic of the changes and challenges that rain-fed farmers are experiencing at a larger scale.

So if we zoom out from that story to the country level, we're talking about over 80 percent of Niger's labor force dependent on rain-fed agriculture, which makes up about a quarter of the GDP. And women farmers are contributing at least 25 percent of that labor force.

And if we zoom out again, looking across sub-Saharan Africa, we know that rain-fed agriculture accounts for almost all of the farm land in that area, making a really large contribution to GDP and approximately half of the labor force on average is women farmers. And yet we also all know that in this area, as we heard from that first story, there are multiple risks. Climate variability has brought increasing challenges from dry cells, floods, and late onset rain. Especially in places that are already facing increased land infertility, market instability, and growing population.

And we also know that when times are hard, research shows us that it's women who are typically more likely than men to be negatively affected. And yet research also shows us that when women are empowered with the resources and the information to take action, they can be powerful agents of resilience for their households and communities.

So it's in this context that climate information can serve as one critical piece of bundles of tools and resources necessary to support men and women to take actions that can increase resilience, enhance production, and improve food security.

So for this reason we've seen investments in climate information have been increasing in recent decades. But designing them and implementing effective CIS systems that respond to users' needs is challenging. That's something we just heard in the last two presentations. And as a result, existing CIS programs often fail to achieve their full potential impact.

And that's really the challenge that's been posed to the project that our team has been working on; the USAID-funded Climate Information Services Research Initiative, or CISRI. Donors are increasing investing in CIS, but we're still not sure what works for effectively meeting the diverse needs of farmer in ways lead to increased food security and resilience.

The CISRI Consortium that you see here is led by Mercy Corps and made up of the partners listed on this slide. We are a mix of implementing organizations like CRS and Practical Action. And also university research, including Columbiaand Clark University.

CISRI forms one-half of a joint consortium known as the Learning Agenda on Climate Information Services in sub-Saharan Africa. And the other partner consortium is led by Winrock International. And they are focusing upstream on the CIS provider end of the value chain.

On CISRI though we look downstream. We are focused on the user end, specifically the needs of small holder, grain-fed farmers and the factors that influence their uptake, their access, and their use of CIS.

We have four workstreams that are working on meeting a variety of needs, including synthesizing existing evidence on CIS users and their needs, conducting evaluations on CIS effectiveness, and developing processes for sharing that learning so that we can help direct future investments, research, and program design.

Workstream two is where I'm focusing on today. And it's examining how climate information is reaching farmers. Looking at where it's breaking down, and where the most promising intervention points are for improving the system. In this workstream we are designing and piloting a participatory systems mapping approach to answer the questions that you see here. At the same time, we're developing tools and guidance that hopefully others can also pick up and use this methodology to assess and design CIS systems within their own programs with the user perspective at its heat.

So far we've conducted two pilots in Niger. One primarily with villages in the Tillabéri region, where our partner, CRS is leading a BRACED project. And one which is currently ongoing is taking place in, where Mercy Corps has a Food for Peace project known as Saluki.

We are also wrapping up a pilot in the Kaffrine region of Senegal where there are multiple projects that are delivering or have delivered CIS to farmers.

To give you a quick snapshot of our approach, the research methodology that we've been developing and piloting is based on five steps, starting with framing the system, conducting background research, and interviews with key stakeholders services, and implementing partners to determine the boundaries and the general characteristics of the CISs that we want to examine. We then draw from this information and the discussions to draft a preliminary CIS map that gives us an idea of how the system should work in theory. Then to refine our research plan and decide where we're going to dig a bit deeper.

The bulk of our qualitative data collection is through a series of participatory systems mapping workshops that bring together stakeholders from the village level up to the regional or the national level to collaboratively map the system and share their perspectives, discuss communication breakdowns, constraints that they're facing from their angle and from their position within the chain, and to identify opportunities for locally-led solutions to improving it.

Throughout the process, we integrate this empowerment stage, which is supporting actors to learn more about CIS and it's value, how the systems work, and the role that they and other key actors play in it. And as a pilot, we have this learning and feedback throughout the whole process to improve our approach and the tools so that we can support others to go through the same process.

One of the key issues we're trying to tackle through this approach is that we're hearing that different actors along the CIS chain are not communicating with one

another. So that actors on the provider end assume the information is reaching and is useful to the farmer end users, which are often thought of as some homogenous group. And then there's also no real mechanism from the village level for feedback about what's working, if it reached them, and if it was useful.

So our approach is to do a series of cascading workshops, starting with separate men and women farmer groups at the village level and bringing in a next tier of actors who are close to the community and play a role in communication. Like the extension workers, the radio stations are local leaders. And then pulling in government representatives, members of national services and higher level actors to engage in the conversation. And at each stage we use the systems map really as a convening force to visualize and discuss parts of the CIS system so the information flows to the enabling environment and the supporting services.

Culminating workshops are often the first time all these different actors have been brought together. And the joint development of the maps kind of kicks off the conversation to discuss key challenges and blockages and for those in the room to begin to see where their roles within the larger system allow them to take steps to improve it. At our culminating workshops the participants develop a priority list of interventions and the beginnings of an action play, prioritizing those places where they feel like the people in the room can take actions to address the problem.

As a short research project, we're not implementing the findings, but we identify champions among local partners, governments, and individuals who have the motivation and opportunity to carry the steps forward.

So what have we found so far? There were a number of general themes that emerged common to those men and women groups. We heard the traditional sighs; the appearance of certain birds or flowering trees have lost some of their predictive power. Or as one farmer told us, the indicators are "misbehaving". We also heard that this can present an openness to other sources of information, that people are seeing things are changing. They're seeing that what they've traditionally relied on isn't as predictive as it used to be. And it's an openness or a window of opportunity for introducing CIS.

We also generally heard three key challenges in the information that they do access. One is the issue of timeliness; that sometimes the information reaches farmers after a critical decision-making window has already passed. So the fields have been prepared, feeds have been bought, and they're unable to use the information that they receive. And there's multiple reasons for this, including overextension agents, the lack of radio coverage, and poor communication among different levels of government institutions.

Also many issues related to access; that the information may not be in the local language. That farmers don't have radios or the ability to purchase them. And that the types of climate information that farmers would like to receive may not be available, which could be information around pests or dry periods.

And finally and critically is the ability to use the information. Farmers are sometimes unsure of how to go from the information that they've received to translating that into what do I do on my farm. So there's really a lot of need to help with that translation and the extension workers to help fill those gaps. Information is often not sufficiently downscaled for farmers to act on. And some farmers lack inputs to take action, such as seeds or equipment.

Our research also revealed many gender-related differences, particularly in access to climate information. And these gender and societal barriers exist on multiple levels. So you see them at the individual or household level, in the community, and then in the wider systems.

So I'm going to share just a few of those findings.

Women generally had more limited knowledge than men about CIS. And we think that this is directly related to the issues I'm about to mention about access. Women farmers were far more likely to say that they did not have access to radio, means to purchase one, or the time to listen to it. So this was also seen as one of the major diffusers of CIS. And though some women said their husbands owned radios, this

wasn't viewed as a shared resource. And if a man received information via the radio, it was not guaranteed that he was going to then share that with his wife.

Many women farmers also shared that they were not invited to attend village meetings, at which a chief might share climate information, or they did not have their husband's permission to go. And even for ongoing CIS programs, we learned that women were not always reached. In Senegal some women said that field agents, usually all men, only spoke to the other men or they preferred to communicate via phone. And by default women were less likely to have these, ended up that mostly it was the men farmers who were receiving this information. And any information that arrived in French or via written text presented additional barriers to women to understanding as they are less likely to be literate or to speak the language.

We also heard how a lack of decision making within the home influences what women can do with the information even if they receive it. In Kaffrine for instance, women base their cropping practices on decisions not made by themselves, but by their husbands. It's the husband who decides what she can plant, when, and where. So even if the wife has the CIS information, she may not be able to act on it if it is different from what her husband wants and those are the power dynamics within their home.

However, our research also pointed to the power of women groups. In parts of Kaffrine our research has found there are strong women producer's groups with strong women leaders who have been trained on CIS. And it's a totally different picture in these groups, where women feel empowered to use the information to make cropping decisions in the same way as men. This was the exception. Most women weren't in these groups. So the differences where they existed and did not were pretty stark.

And finally, our research also noted that women have an interest in getting additional information to make non-agricultural household decisions such as concerning their children's safety under certain weather conditions; should they be outside or not, and information on health and diseases.

So when we think about plugging CIS into these complex sociocultural systems, I think it really points to the need to bundle CIS in a package of supportive, multi-tiered interventions that address gender-related challenges on multiple levels.

A number of possible intervention points were identified in the research. Many of them focus on the potential of radios or TVs to disseminate information more effectively. But for this to be possible, they have to effectively reach men and women farmers and pay attention to the gender-related barriers in accessing technology.

So a couple of suggestions were made on this end. Organizing men and women listener groups that would tune in to climate and weather-related radio messages together. Ensure any CIS radio messaging is diffused during hours when both men and women are available, preferably in the evening when they're not in the field and women are not preparing meals. Make CIS available in local languages and via vocal messages rather than written word. This would enable women to have better access and use of the information. Increase the number of female extension agents as a way to better ensure women are getting the support that they need. Support the development of community groups and the training of key group leaders on CIS so that they can be effective disseminators, as was the case with the women producer groups in some areas of Kaffrine. And engage with supporting services that help both men and women to act on the climate information. So agri-dealers, feed dealers, and financial services.

While many of these findings point to increasing access to information and changes to the enabling environment, underlying sociocultural norms and behavior changes that restrict womens' decision-making power will also have to be addressed to ensure women are active agents of resilience.

How do these dynamics start to shift? That's a big question. But I wanted to quickly pull in some insights from a gender program Mercy Corps is working on called BRIDGE, which is Building Resilience Through the Integration of Gender and Empowerment. BRIDGE is working with six Mercy Corps Programs in three countries; Indonesia, Niger, and Nepal. The pilot approach is to strengthening resilience to climactic shocks through a gender-sensitive approach.

Through its assessment, BRIDGE identified three important gender pathways which support resilient capacities that can lead to increased resilience at household and community levels. These are household decision-making, group participation, and market access. And to build these capacities, BRIDGE takes a three-pronged approach. That includes couple's dialogues on women empowerment and decision-making in the household, training religious and traditional leaders as central advocates of behavior change to defend women's rights and promote dialogue between spouses, in sermons, and teaching. And this was found to be a particularly powerful catalyst of behavior change across the community. And finally, learning days for participants to share what they learned with others in the community through skits and songs. These activities are paired with follow-up coaching and measurement to see if the household decision makings are increasingly moving towards being more joint and collaborative.

BRIDGE is pulling together its final tools and findings from its pilots now. But preliminary findings show these approaches made progress in shifting behaviors and promoting greater equity in household decision-making. And I think there are some lessons the CIS community can draw from here. We would like to see in the next steps of our research this opportunity to pilot these findings and explore how CIS and gender programming like that in BRIDGE can more effectively complement one another to ensure that women are empowered not only to access climate information, but make decisions that increase resilience in the household and their community.

So as far as next steps for us, this is fairly informal given that we're still synthesizing learnings from two pilots. And there will be more to come in the coming months when we have our final research reports, tools, and guidance.

But to end with four final thoughts or takeaways. I would say the needs and preferences of women are different when it comes to CIS. And it's important to identify these differences and tailor CIS design and implementation accordingly. Improving access to climate information without addressing access to other resources and the capacity to act on that information will not be effective. We have to program for what women need to influence decisions in their household and at other levels so that can lead to more resilient outcomes. Thirdly, this of course takes

time. CIS acts in the same constraining sociocultural norms as other interventions and will need longer timeframes for research and to encourage stronger feedback loops with community. And lastly, I think our findings from this research really points to the value of participatory action research in this space. And the participatory processes are really valuable to helping to bridge the gaps between providers and users and identifying the user needs and potential solutions.

So I think I'll leave it right there for now and turn it over to you.

[End of Audio]