



Photo: Mercy Corps, Ethiopia/Yosef Tiruneh, 2023

## Climate information services in Ethiopia – A key resilience capacity for households & businesses

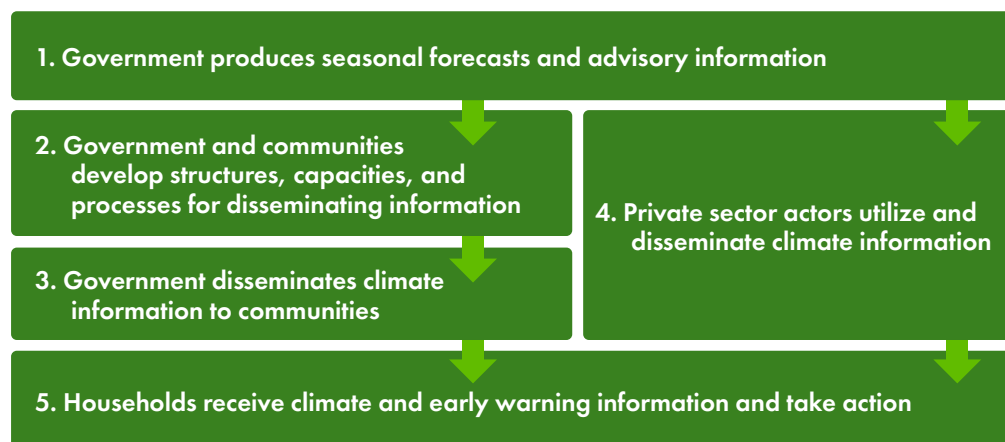
Climate change is wreaking havoc on livelihoods and food security outcomes in the lowlands of Ethiopia. Timely access to climate information services (CIS) can play a key role in enabling producers to manage their livelihoods in the face of uncertainty and mitigate the impact of shocks, but these systems are largely absent in the lowlands.

*This learning brief describes how CARE International, through the Mercy Corps-led RIPA-North program, is working to foster locally driven services for climate and early warning information. The brief highlights the impact this is having in terms of household-level decision-making and also the challenges of achieving long-term sustainability of these systems.*

### KEY CHALLENGES

- Climate change is increasing the variability of rainfall patterns and the frequency and severity of droughts and floods in the lowlands.
- Lowland pastoralists and agro-pastoralists are struggling to make informed production decisions, such as whether to offtake animals, and when, and how much, seed to plant.
- Scientific meteorological forecasting systems exist in the lowlands, but the forecasts are not packaged in a way that is useful for households, and dissemination channels are weak.
- Lowlands households have historically trusted 'traditional forecasters' in their communities, but in the face of climate uncertainty their methods are less reliable than before.

The vision of the RIPA-North team is that government will *produce* timely and audience-appropriate climate and early warning information on a sustainable basis, government and the private sector will *disseminate* this information through channels that are accessible for lowland households, and households and businesses will have the capacities and confidence *to make decisions and take action* using the information.



### ***1. Government produces trusted seasonal forecasts and advisory information through a participatory process***

RIPA-North partnered with the Disaster Risk Management (DRM) bureaus in three target lowland regions (Somali, Oromia and Afar), to introduce a new process for producing seasonal forecasts and advisories, called 'Participatory Scenario Planning' (PSP). Government conducts PSP workshops one to two months before the onset of each rainy season once the meteorological forecast has been released. Key features of the approach are:

- *Blend of scientific and traditional:* The approach brings together meteorologists and traditional forecasters, to develop a mutually agreed 'blended' forecast, as a way of creating trust among communities.
- *Participatory:* A range of government, community and private sector stakeholders participate in the PSP workshops, enabling participants to share, filter, integrate and interpret information, to co-produce forecasts and advisories relevant for the local context.
- *Right sizing the information:* The focus is on producing seasonal forecasts and related advisories that are easy to understand for local actors including households. The forecasts are specific to woreda (district) level and are framed around three scenarios with probabilities for each, to allow interpretation of the inherent uncertainties: 'Above normal', 'Normal', and 'Below normal'. The advisories include advice on practical responses to each scenario.
- *Government-led:* RIPA-North is focused on sustainable, systemic change, which means government taking ownership of all aspects of the process including financing. After initial technical support, the team has stepped back as much as possible, allowing government to lead the process.

### ***2. Government and communities develop structures, capacities, and processes for disseminating climate advisories to lowland households***

RIPA-North supported the DRM bureaus at regional-level and their line offices at woreda level, to develop capacities around the 3Cs (Coordination, Communication and Collaboration), including cross-sectoral plans with other key government sector offices.

Working with government, RIPA-North has also strengthened the DRM capacities of community governance institutions, such as Early Warning Committees, DRM councils and other actors such as women's associations, rangeland councils and VSLAs. Ultimately, the aim is for government to have a diverse network of channels to disseminate climate advisories to communities, who in turn have the capacities to understand and act upon them.

### ***3. Government leads dissemination of seasonal advisories through community structures and other channels***

Following the PSP workshops, government's role is to translate the agreed forecasts and advisories into local languages and effectively disseminate the information. The information is disseminated to six sector offices in all woredas by phone, email and social media (WhatsApp / Telegram group), and it is then cascaded throughout the woreda through government Early Warning Communicators, through the network of community institutions, and by vehicle-mounted megaphone. Government also released the advisories through radio and television campaigns.

### ***4. Private sector actors utilize and disseminate climate information***

RIPA-North recognizes the important role that the private sector can play in climate information services. Access to climate information empowers businesses to make their own informed planning decisions, for example livestock traders investing resources in fodder production / purchases in anticipation of a below normal rainy season. Moreover, the private sector can play a key role as channels of information and advice to communities, for example agri-input retailers advising agro-pastoralists on seed varieties and planting decision-making based on a specific advisory. To support this, RIPA-North facilitated the establishment of social media groups of private sector agri-businesses and other private sector actors, who receive the government climate information through this channel. Separately, DRM training that RIPA-North facilitated for agri-businesses has built the capacity of the private sector to utilize climate advisories and provide reliable guidance for their customers or suppliers. Finally, RIPA-North has also developed a new channel for private sector dissemination of climate advisories, through integrating the government climate information into a digital platform called Lersha (another RIPA-North partner), which disseminates directly to registered farmers by voice blast and SMS or through a network of Lersha agents.

### ***5. Households receive seasonal advisories and other climate information and take action***

The ultimate aim is that the climate forecasts and advisories will reach pastoralist and agro-pastoralist households and, most importantly, that they use this information to take action. For pastoralists, livelihood actions could relate to pasture management, de-stocking and storing fodder. For farmers, actions could relate to soil and water conservation measures, area of land to plant, and choice of short-season crops. Beyond individual livelihood decisions, the advisories can also be used for household and communities to take DRM actions, such as flood diversion and drainage canal maintenance or community water harvesting and conservation.

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**90%**  
**OF GOVERNMENT  
OFFICES ACTIVELY  
DISSEMINATED  
ADVISORIES**

**327,000**  
**INDIVIDUALS RECEIVED  
CLIMATE INFORMATION  
THROUGH  
GOVERNMENT  
CHANNELS**

**8,000**  
**INDIVIDUALS  
RECEIVED CLIMATE  
INFORMATION  
FROM THE PRIVATE  
SECTOR**

## INTERVENTION IMPACT EVIDENCE OF SUSTAINABLE MARKET SYSTEM CHANGE

To assess whether the RIPA-North vision for systemic change has been achieved, the key questions are whether the new climate information services are functioning effectively, and whether they are sustainable. The DRM bureaus in all three regions have shown a strong commitment to *producing the seasonal forecasts and advisories* and have now led three or more participatory scenario planning (PSP) workshops in each region. However, the PSP workshops are not yet fully sustainable in terms of ‘Who Pays’. While the government covers the cost of the workshop space and refreshments, in most cases RIPA-North is still paying per diems for participants (approximately \$2,000 per workshop).

In terms of *government dissemination channels for climate information*, the process is functioning effectively with good levels of government ownership and therefore prospects for sustainability. Evidence of this comes from a survey

of 54 government sector offices across 22 woredas (districts), which found that in 2023, 48 sector offices (90%) received the seasonal information and actively disseminated it through woreda-level networks. Government is organizing and funding almost all of this dissemination themselves, though RIPA-North has been covering fuel costs and lending government a sound system for megaphone dissemination, so this channel is unlikely to be sustainable.

*Private sector access and dissemination of CIS* only began in 2023. A Mercy Corps survey of 398 businesses from a variety of sectors in late-2023 found that 26% had received climate advisories, a figure that was much higher for agri-businesses at 89%. In addition, in 2023 the Lersha digital platform disseminated seasonal advisories in Somali Region to 7,440 households, which is expected to increase to 40,000 in 2024 as the Lersha network has expanded substantially.



### Success Story from a System Actor

The DRM Bureau in Afar region has achieved notable success in institutionalizing the new climate information and early warning systems, including facilitating, and financing PSP workshops for the *sugum* rainy season entirely independently of RIPA-North. Government dissemination efforts have also been particularly effective in the region. 52% of households in RIPA areas in Afar received climate information in 2023 (compared with 31% for all three regions), while 53% of businesses received information (compared with 15% in Oromia and 12% in Somali Regions).

Households in Afar who accessed CIS were also most likely to take action (86%) compared with the other regions (78% in Somali and 63% in Oromia).

These achievements can be attributed to the strength of community institutions, strong coordination by the Bureau, and effective use of female early warning communicators. As the Bureau Head notes, “PSPs and CIS have become an integral part of government services, and this is helping to reduce vulnerabilities and build resilience across various sectors, such as agriculture, health and education”.



**31%** **VS** **11%**  
**OF HHS IN  
RIPA AREAS  
ACCESSED CIS  
IN 2023** **OF HHS IN  
RIPA AREAS  
ACCESSED CIS  
IN 2021**

**77%**  
**OF HHS USED  
CLIMATE  
INFORMATION  
TO TAKE ACTION**

## INTERVENTION IMPACT EVIDENCE OF IMPACT ON TARGET GROUPS

The new systems have significantly increased *access* to climate information for lowland households. RIPA-North's annual population survey found that 31% of households in RIPA-North areas accessed climate advisories in 2023, compared with 11% in 2021. This is also significantly higher than in control group areas (20% in 2023 and 14% in 2021). Notably, in RIPA areas, 65% of households that received climate advisories got information from community institutions (only 42% in non-RIPA control areas) and 47% received information from government sector offices (31% in control areas). This suggests that it's the government dissemination services that are the key difference.

Impressively, 77% of households in RIPA-North areas that received climate information *used the information* to take anticipatory action. This compares with 59% of households in non-RIPA areas, suggesting that the broader capacity-building and awareness raising efforts

of government through the RIPA-North partnership are having an impact on household behaviors. For crop producers, the most common actions taken were planting of short-season crops, use of soil and water conservation measures, and water harvesting. For livestock producers, the most common actions were pasture management, storage of fodder and destocking animals, with a smaller number of households also vaccinating their animals.

There is also fairly strong evidence that the new climate information services are having a positive *impact on livelihood* outcomes. 74% of households who took anticipatory action as a result of the information believed that it 'significantly mitigated' the impact of drought and flood. Even more compelling is that across the population, households that took action based on CIS experienced a fewer number of shocks (2.3 shocks on average) than households who didn't take action (3.1 on average).

### Participant Success Story

For Kimiya Hassan, a mother of five in Oromia region, the past few years have been the toughest she can recall for farming livelihoods in Kitto village of East Hararghe Zone, during the worst drought in 40 years.

This experience taught Kimiya that climate change is a real and serious challenge. It's also one of the reasons she is now a firm believer in the importance of climate information services. In the lead-up to the main rainy season in March 2023, Kimiya faced huge uncertainty about planting decisions. But a climate advisory for the season indicating a high probability of 'normal' or 'above normal' rainfall gave Kimiya confidence

to invest everything she could to achieve a good harvest. She prepared all her 1.5 hectares for planting, she transported local fertilizer to her farm, and she invested in high-yielding seeds. These efforts paid off and this year Kimiya harvested 1,100kg of sorghum this season (500kg more than last year) and 1,800kg of groundnuts (700kg higher).

Kimiya has now become a champion for CIS in her community, working with community leaders to create awareness about the seasonal advisories.

"We have to prepare farm activities early in advance, seek out valuable information, and take the information seriously," she says.



Photo: Mercy Corps, Ethiopia/Medhanit Mulugeta, 2023



## Cross-intervention integration

A key principle of RIPA-North's resilience strategy is that household resilience will only be significantly enhanced if they are able to access multiple (e.g. at least three) different resilience-enhancing services. Cross-intervention integration is therefore an important strategy for RIPA-North as this guarantees households will access more than one service through a single channel. There are multiple ways RIPA-North has integrated climate information services into other system services. For example, community institutions supported through RIPA-North have become part of the DRM Bureaus' dissemination strategy for CIS. These include community nutrition groups established by the Bureau of Health, Rangeland Councils and VSLAs, and the integration has resulted in 23,000 households receiving CIS. Moreover, the nature

of the groups means these recipients are mostly female and among the most vulnerable in their communities. In another example of integration, agribusinesses supported by RIPA-North are now a specific target for CIS. 89% of RIPA's agribusiness partners reported receiving information and 48% reported it was 'very useful' while 52% said it was 'mostly useful'. This is significant, because access to climate information enables businesses to plan in advance for shocks and therefore is a key enabler of business continuity and market systems resilience. It also means businesses are able to give better, climate-smart, advice to their customers; a survey in Afar region showed that more than 500 households received seasonal forecast guidance from agribusinesses in 2023.

### LESSONS LEARNED

1. Access to climate information services is a crucial resilience capacity for lowland households – households will take action if they receive and understand it.
2. The packaging of CIS / EW into messages and language that are appropriate for target households is crucial for success in triggering actions by households.
3. Government ownership of the climate information systems is strong, but there are still question marks about sustainability, in particular funding of the PSP workshops. It's crucial that government budgets for these in their annual plans.
4. The private sector can play a valuable role in dissemination of climate information services, but more data needs to be gathered on whether digital channels result in action by households
5. Business access to CIS is nascent, but extremely promising. RIPA-North should work to expand and create a robust system fully linked to government systems.
6. At present there are no signs that the government is independently self-replicating the model in new woredas and zones. This scale-up should be a focus for RIPA-North.



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**Resilience in Pastoral Areas – North** (RIPA-North) is a five-year, \$38 million USAID-funded program operating in lowland areas of Somali, Oromia and Afar regions of Ethiopia (2020 – 2025). RIPA-North aims to improve the resilience capacities of households, markets, and governance institutions, collectively contributing to enhanced food security and inclusive economic growth.