

## PART 1: Description and all information of the outcome/impact reported

### TYPE

OICR: Outcome Impact Case Report

### TITLE

Over 130,000 farmers in the Mekong Delta, Vietnam, have used timely weather forecasts and advisories to improve farm decisions, leading to higher yields and profits

### STATUS

New

### YEAR

2022

### OUTCOME IMPACT CASE REPORT

Study #4702

Stage of Maturity of change reported: **stage 3**

### GEOGRAPHIC SCOPE: NATIONAL



**COUNTRY:** The Socialist Republic of Viet Nam

### Contributing external partners:

- MARD - Ministry of Agriculture and Rural Development (Vietnam)
- NCHMF - National Center for Hydro-Meteorological Forecasting

### SHORT OUTCOME /IMPACT STATEMENT

Through "Local Technical Agroclimatic Committees" (LTACs) and multiple media, timely Agro-Climatic Bulletins are being disseminated to over 130,000 farmers (520,000 beneficiaries) in 351 communities in Vietnam's Mekong Delta and South-Central Coast. Based on a sample survey of 202 farmers in one province, the use of this information has enabled farmers to increase their rice yields and revenue significantly. The LTAC model was developed in Latin America by CIAT and has been successfully adapted to the southeast Asian context. Article [here](#)

### OUTCOME STORY FOR COMMUNICATIONS USE

The Agro-Climatic Bulletins (ACBs) project in Vietnam is a success story. It has demonstrated how climate service-informed decision-making can help farmers to better manage risks and take advantage of favorable climate conditions. The ACBs are produced based on seasonal, monthly, or 10-day weather forecasts. They provide farmers with information about the expected weather conditions, such as rainfall, temperature, and humidity. This information can be used by farmers to make decisions about their crops, such as when to plant, when to harvest, and how much fertilizer and pesticides to use. The ACBs were piloted in two provinces in 2020 and scaled to six more provinces in the Mekong River Delta during the Summer-Autumn season 2022 and Winter-Spring season 2022-2023. Through multiple media, the project reached over 130,000 farmers (520,000 beneficiaries). A household survey of 202 farmers in Tien Giang province showed that ACB adoption is associated with a significant increase in rice yield and revenue. ACB adopters had an increased average rice yield of 266 kilograms per hectare, and an average rice revenue increase of 1.834 million VND (USD 78) per hectare. In addition, 39.6% of interviewed farmers reported reduced use and costs of pesticides (reducing 1.36 million VND or USD 58 per hectare on average for 2021-2022 Winter-Spring season). The successful implementation of the ACBs project in Vietnam illustrates how climate service-informed decision-making can help farmers to better manage risks and take advantage of favorable climate conditions. The project has the potential to be replicated in other countries and regions, and it could help to improve agricultural productivity and resilience to climate change.

Here are some of the key findings of the ACBs project:

- ACBs can help farmers to make better decisions about their crops.
- ACBs can lead to increased crop yields and revenue.
- ACBs can help farmers to reduce their use of pesticides.
- ACBs are a cost-effective way to improve agricultural productivity and resilience to climate change.

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### **CGIAR INNOVATION(S) OR FINDINGS THAT HAVE RESULTED IN THIS OUTCOME OR IMPACT**

The model being tested in Vietnam on climate-informed agricultural advice is based on the "Local Technical Agroclimatic Committees" (LTAC) approach (12). LTAC was developed by the International Center for Tropical Agriculture (CIAT) in Latin America between 2013 and 2015 and has been successfully implemented and adapted to tailor the context in Southeast Asia. LTAC is a dialogue process among a diversity of local actors along the climate service value chain, including scientists, technicians, representatives from the public and private sectors, and farmers, which seeks to understand the climate's possible behavior in a locality and to generate local-specific recommendations to reduce risks associated with expected climate variability. The output from this process is a local agroclimatic or agro-weather bulletin that contains the climate prediction and 10-day weather forecast for the region, the possible impacts on crops for specific conditions in time and space, as well as recommendations around planning and decision-making for agricultural production and disseminated to end-users or farmers.

### **ELABORATION OF OUTCOME/IMPACT STATEMENT**

The Alliance of Bioversity International and CIAT and Vietnam's Department of Crop Production (DCP) introduced a participatory process to develop Agro-Climatic Bulletins (ACBs) with local partners (1,2). ACBs are produced based on seasonal, monthly, or 10-day weather forecasts. ACBs were piloted in two provinces in 2020 and scaled to six more provinces in the Mekong River Delta during the Summer-Autumn season 2022 and Winter-Spring season 2022-2023, reaching 351 communes in eight provinces (1, 3). Through multiple media, the project reached over 130,000 farmers (520,000 beneficiaries), although a larger group may be exposed through posters, loudspeakers, and other channels (4, 5, 6). Based on the ACBs, farmers promptly adjusted their cultivation calendar, application of fertilizer and pesticides, and harvesting timing and avoided negative impacts of unfavorable weather and climate conditions (3,7,8). The findings from a household survey of 202 farmers in Tien Giang province showed that ACB adoption is associated with a significant increase in rice yield and revenue (9). ACB adopters had an increased average rice yield of 266 kilograms per hectare, and an average rice revenue increase of 1.834 million VND (USD 78) per hectare. In addition, 39.6% of interviewed farmers reported reduced use and costs of pesticides (reducing 1.36 million VND or USD 58 per hectare on average for 2021-2022 Winter-Spring season). After successful pilot implementation of ACBs in 2020 and 2021, a training workshop was held in seven Mekong Delta provinces (10). This resulted in integrating ACBs implementation into DCP's directive letters for continuing ACB implementation (11). Sub-DCPs then issued official work plans to maintain and expand ACBs (11). As the next step, [DCP plans](#) to expand the implementation of ACBs in the Delta and beyond while working with relevant government agencies on a model that can be sustained and scaled. DCP will also support an application to the Ministry of Agriculture and Rural Development to mobilize local government funds for further implementation (5). The successful implementation of this project in Vietnam illustrates how climate service-informed decision-making enables farmers to better manage risks and take advantage of favorable climate conditions and adapt to change.

### **LINKS TO ANY COMMUNICATIONS MATERIALS RELATING TO THIS OUTCOME**

- Communication material [1](#), [2](#), [3](#), [4](#), [5](#), [6](#), [7](#), [8](#), [9](#), [10](#), [11](#)

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### **REFERENCES**

1. Agro-Climatic Bulletins: improving farmer decision-making through climate information services: [here](#)
2. Alliance of Bioversity and CIAT (2022) Steps to co-develop Agro-Climatic Bulletin (ACB) for local agricultural planning and decision-making. Hanoi (Vietnam): DeRISK SE Asia. 48 p. [here](#)
3. Le, T.T.; Nguyen Mai, H. (2022) Review Workshop. Implementation results and scaling Agro-Climatic Bulletins (ACB) in Mekong River Delta. [here](#)
4. Calculation of the number of farmers reached by local agro-climatic bulletin in Vietnam disseminated using communication channels. [here](#)
5. Le, T.T.; Nguyen Mai, H. (2022). Workshop report. Project result and experience sharing workshop in Vietnam. [here](#)
6. National channel on Agriculture VTC16, 2022. Farmers benefiting from Agro-climatic bulletin for agricultural risk management [here](#)
7. Agro-climatic bulletins: farmers' feedback. [here](#)
8. Agro-climatic bulletins: farmers' feedback [here](#)
9. Economic analysis of the adoption of Agro-Climatic Bulletin (ACB) at farm level in Tien Giang province [here](#)
10. Le, T.T.; Nguyen Mai, H. (2022). Training report. Agro-Climatic Bulletin Development and Dissemination in Mekong River Delta, Vietnam. [here](#)
11. Link to directive letters and work plans at regional and provincial levels [here](#)
12. Giraldo-Mendez D, Martínez-Baron D, Loboguerrero AM, Gumucio T, Martínez JD, Ramírez-Villegas J. (2019). Technical Agroclimatic Committees (MTA): A detailed guide for implementing MTA, step-by-step ([cgiar.org](#))

## PART 2: Mapping to Alliance strategy and structure

### KEY CONTRIBUTORS



Lever 3 - Climate Action

### SDG TARGETS



- **13.2** - Integrate climate change measures into national policies, strategies and planning
- **2.4** - By 2030, ensure sustainable food production systems and implement resilient agricultural practices that increase productivity and production, that help maintain ecosystems, that strengthen capacity for adaptation to climate change, extreme weather, drought, flooding and other disasters and that progressively improve land and soil quality
- **1.5** - By 2030, build the resilience of the poor and those in vulnerable situations and reduce their exposure and vulnerability to climate-related extreme events and other economic, social and environmental shocks and disasters

### GENDER, YOUTH, CAPACITY DEVELOPMENT AND CLIMATE CHANGE

- **CapDev relevance:** 2 - Principal. Training on local agro-climatic bulletin development for provincial and district stakeholders is a key activity [10]
- **Gender relevance:** 2 - Principal. Multiple communication channels used to improve access and use of agro-climatic bulletins for different users (female, male, etc) [4, 9]
- **Climate relevance:** 1 - Significant. Climate change is a priority in this activity capturing the significance of the use of climate information for short- and long-term farm planning and decision-making [7, 8, 9, 11]

### Quantification

130.000 farmers.

To avoid overlapping in terms of farmers accessing to different dissemination channels, the total number of farmers reached is calculated based on the total of farmers reached via Zalo App/ Zalo groups (Zalo members) and Zalo farmer-to-farmer sharing. On average, one Zalo farmer shared information to 5 other farmers based on feedback from farmers during field visit and mid and end of season review meetings. However, multiple dissemination channels such as loudspeakers, printed posters and meetings/training of governmental agencies and social civil organizations have been applied for wider spread to the farmers [4].

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The Alliance is part of CGIAR, a global research partnership for a food-secure future.

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[www.cgiar.org](http://www.cgiar.org)