

Evidences

Study #4345

Contributing Projects:

- P1591 - Policy imperatives for Southeast Asia's regional food systems under climate change
- P1608 - A Climate Services Menu for SEA (CliSM): tackling scaling with a diversity of end users in the climate services value chains

Part I: Public communications

Type: OICR: Outcome Impact Case Report

Status: On-going

Year: 2021

Title: Local governments in Vietnam use seasonal climate and ten-day weather forecasts to co-develop tailored agricultural advisories to strengthen farm decision-making in ~70,000 farmers in the Mekong Delta

Short outcome/impact statement:

DeRISK Southeast Asia — a regional project by the Alliance and its partners — introduced a participatory process to provincial and district stakeholders for developing tailored seasonal and ten-day agroclimatic advisories for rice production. These were disseminated via targeted communication channels. About 70,000 farmers in Tien Giang Province used the agroclimatic information for agricultural decision-making (crop selection, planting date, soil preparation, water/nutrient management, pest/disease control, harvesting). The approach is now being scaled to six more provinces in the Mekong Delta.

Outcome story for communications use:

DeRISK Southeast Asia project introduced the participatory co-development of agroclimatic advisories for rice production, based on seasonal climate data and ten-day weather forecasts, in collaboration with local partners and stakeholders. The agroclimatic bulletin presents information on the probability of a warmer or cooler season based on expected temperature, or a drier or wetter season based on predicted rainfall. The bulletin also includes the potential impact of climate and weather forecast on crops according to their growth stages. Seasonal agroclimatic bulletins (SABs) are disseminated pre- and mid-season to the pilot districts to support longer-term planning, while short-term weather forecasts and recommendations are provided every ten days throughout the season for crop management practices.

During the 2021-2022 Winter-Spring rice season, SABs were shared among 130 communes in Tien Giang Province through communication channels such as Zalo messaging app groups, printed bulletins, posters, and loudspeaker broadcasts. Local stakeholders also support monitoring of SAB use by providing feedback from end-users. It is estimated that ~70,000 farmers in the Mekong River Delta were reached as of January 2022 (1).

To strengthen key stakeholders' roles and local ownership, Tien Giang Sub-Department of Crop Production (DCP) established a Technical Working Group (TWG). Review meetings at mid- and end-of-season 2021 Summer-Autumn rice season (1 district) and a mid-season 2021-2022 Winter-Spring rice season (ten districts) reported positive and satisfactory feedback from local stakeholders and farmers, signifying increased confidence in their farm decision-making. The forecast and SAB recommendations were perceived by farmers to be reasonable, understandable, and easy to apply, who implemented recommendations on planting dates, crop variety selection, adaptation measures for specific crop growth stages, pre-rainy season land preparation, and decision-making on irrigation activities based on a water discharge plan. Unexpectedly, the agroclimatic information was also used by farmers in other domains —e.g., in decision-making on timely vaccination of animals— showing potential for broadening its application.

Through the provision of a ten-day bulletin, farmers are better-informed on the types of pests and diseases present in their fields, enabling them to conduct timely application of plant protection products with the appropriate active ingredients. Weather forecast data helps farmers decide on when to spray, to avoid losses due to rain or consider applying alternative wetting and drying irrigation methods during water shortages. The tailored climate information and agroclimatic advisories improved planning and informed decision-making, enabling farmers to avoid the potential impact of adverse weather and climate conditions on their livelihoods.

Links to any communications materials relating to this outcome:

- <https://tinyurl.com/yys2bwxg>
- <https://tinyurl.com/y7ujkozv>
- <https://tinyurl.com/yy9msndq>

Part II: CGIAR system level reporting

Link to Common Results Reporting Indicator of Policies : Yes

Policies contribution:

- 819 - Directive letter from Provincial Sub-Department of Crop Production of Tien Giang on scaling local agro-climatic bulletin development and dissemination in all of its districts

Stage of maturity of change reported: Stage 2

Links to the Strategic Results Framework:

Sub-IDs:

- Improved forecasting of impacts of climate change and targeted technology development
- Enhanced adaptive capacity to climate risks (More sustainably managed agro-ecosystems)

Is this OICR linked to some SRF 2022/2030 target?: Too early to say

Description of activity / study: <Not Defined>

Geographic scope:

- National

Country(ies):

- The Socialist Republic of Viet Nam

Comments: <Not Defined>

Key Contributors:

Contributing CRPs/Platforms:

- CCAFS - Climate Change, Agriculture and Food Security

Contributing Flagships:

- FP4: Climate services and safety nets

Contributing Regional programs:

- LAM: Latin America

Contributing external partners:

- MARD - Ministry of Agriculture and Rural Development (Vietnam)
- An-Giang DARD - An Giang Department of Agricultural and Rural Development
- NCHMF - National Center for Hydro-Meteorological Forecasting
- IRI - International Research Institute for Climate and Society

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 (2). 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 ten-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.

Innovations: <Not Defined>

Elaboration of Outcome/Impact Statement:

The DeRISK project, co-implemented by the Alliance, introduced a participatory approach in Tieng Giang province to tailor climate-informed advisories to specific situations (cropping system, availability of inputs, adaptive measures, and human resources) in communes (3). To enhance the quality of climate information being produced, the Provincial Hydro-Meteorological Centers of Tien Giang and the Southern Regional Hydro-Meteorological Center were linked to an initiative of IRI to participate in recurring training sessions. Training on climate information and its application to agroclimatic advisory development and packaging information into bulletins was conducted (4).

With support of a Technical Working Group (TWG), agroclimatic advisories were co-developed with agricultural offices and other stakeholders. The primary function of the TWG is to provide technical advice and guidance for districts in developing and disseminating agroclimatic bulletins based on seasonal climate and weather forecasts. The TWG was established by the Tien Giang Sub-Department of Crop Production (DCP) and includes a variety of stakeholders from government and communes (5).

Seasonal and ten-day agroclimatic bulletins were produced and disseminated through various channels to about 70,000 households in 130 communes in Tien Giang Province (4). The dissemination was supported by district and communal government organizations and unions such as Women, Youth and Farmer Unions. To facilitate a better understanding of the bulletin content and its uses, farmer training sessions were conducted at the beginning of the season (6). A video guide was also produced to aide further understanding of the users (5). Mid-season and end-of-season reviews were conducted for two cropping seasons with communes and districts to gather feedback to further improve the process and bulletins. The next users (communal officers) and farmers shared the usefulness of the forecast and agroclimatic advisories in their day-to-day decision-making (7).

During the end-of-season review in September 2021, Tien Giang Sub-DCP and DCP (Department of Crop Production) expressed their interest in implementing the LTAC approach in all districts of Tien Giang Province for the 2021-2022 Winter-Spring season (8), with scaling to other provinces in the Mekong River Delta in 2022 and 2023 (9,10).

References cited:

- [1] Summary presentation on the results of mid-term assessment of the bulletin dissemination in Tien Giang districts presented during the mid-season review in January 2022. (<https://tinyurl.com/ya9gmwto>)
- [2] Scaling plan presented during the Transformative Farming System under Climate Change (TFCC) workshop in Mekong Delta with MARD. (<https://tinyurl.com/y9xg9kh7>)
- [3] 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, step-by-step. Cali, Colombia: CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS). (<https://hdl.handle.net/10568/105442>)
- [4] Provincial Directive Letter 3390 SNN & PTNT-TT & BVTV by Tien Giang DARD to direct scaling to all the districts: (<https://tinyurl.com/y79ttaj7>)
- [5] DO NOT SHARE Manual and training material for the development of agroclimatic advisories for local agricultural planning and decision making. The Alliance of Bioversity International and CIAT and Department of Crop Production (DCP) (draft version of manual as of 31 January 2021; DO NOT SHARE) (<https://tinyurl.com/yazgpsfu>)
- [6] Directive letter for the districts in Tien Giang to participate in the local agro-climatic bulletin training organized by provincial Sub-DCP with support from the Alliance of Bioversity International and CIAT. (<https://tinyurl.com/yb7qe3d4>)
- [7] Detailed calculation of the number of farmers reached by local agro-climatic bulletin in Vietnam disseminated using various communication channels (<https://tinyurl.com/y94bk96j>)
- [8] IRI-ACToday project reporting including the training provided for Vietnam NCHMF in 2021. Pages 21-22 (<https://tinyurl.com/y84pekfo>)
- [9] Develop and disseminate agricultural bulletins recommending production based on meteorological and hydrological forecasts - Department of Agriculture and Rural Development (tiengiang.gov.vn) (<https://tinyurl.com/y7ujkozW>)
- [10] TFCC Scaling Workshop article published in MARD official website - Hội thảo sơ kết và nhân rộng mô hình thí điểm “Chuyển đổi canh tác lúa thích ứng với biến... (mard.gov.vn) (<https://tinyurl.com/y6wreaqr>)

Quantification:

Type of quantification: b) Extrapolated estimates

Number: 70000.00

Unit: farmers

Comments: Reference No. 7

Gender, Youth, Capacity Development and Climate Change:

Gender relevance: 0 - Not Targeted

Youth relevance: 0 - Not Targeted

CapDev relevance: 2 - Principal

Main achievements with specific **CapDev** relevance: Provincial and district level training on local agroclimatic bulletin development is a key activity (3, 4)

Climate Change relevance: 1 - Significant

Describe main achievements with specific **Climate Change** relevance: 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 (2, 5, 6)

Other cross-cutting dimensions: No

Other cross-cutting dimensions description: <Not Defined>

Outcome Impact Case Report link: [Study #4345](#)

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