

# Capacitating Farmers and Fishers to Manage Climate Risks in South Asia (CaFFSA)

*Reducing climate risk by providing timely, reliable information*

## Introduction

CaFFSA will innovate in the delivery of climate information services (CIS) to 330,000 farm households in India (Andhra Pradesh and Odisha states) and 150,000 fish farming households in Odisha and Bangladesh (Barisal, Sylhet and Khulna divisions). Timely, reliable and contextualized climate information will profoundly change the climate risk equation in sectors that underpin the food security of millions. The project builds on the existing expertise of CGIAR and partnerships with national agencies and agricultural service and credit institutions to design and deliver scalable products, with an aim to reach more than 600,000 people by 2021.

## Project deliverables

The project will deliver:

- An operationalized and scalable **ICT-based delivery system** for communicating site-specific climate information.
- A **methodological framework** to identify the time, accuracy and scale of climate-sensitive decisions of fish value chain actors.
- **Training modules and outreach programs** to enhance the capacity of farmers and their support agents in applying CIS.
- High-impact and **published science**.

## Background

Climate variability has a profound influence on fisheries and agriculture in South Asia, including the service industry and value chains. Progress in weather and sub-seasonal/seasonal forecasting has significantly increased the information available. Yet gaps still exist in the delivery and impact of climate information services, including reliability, uncertainty, scaling and delivery. Timely, reliable and contextualized climate information can, therefore, be used in decision making to reduce climate risk provided that risks factors and associated uncertainties are well identified, characterized, and prioritized.



## Project activities

### Activity 1. Identifying farm- and fisheries-relevant information to tailor climate services (Bangladesh)

WorldFish will partner with and use methods developed by CIMMYT and aligned bilateral projects to assess climate-sensitive management decisions in the fisheries and aquaculture sectors in Bangladesh.

### Activity 2. Climate analytics of historical data

Using quality national and global climate datasets, the project will identify weather- and climate-related risk factors and characterize trends to test different pathways through which climate shocks and stressors drive nutrition outcomes.

### Activity 3. Participatory scenario analyses for climate risk decisions in farming systems (India)

The project will test the methodology of developing what-if scenario analyses where climate and weather forecasts are linked with crop/ farm simulation models. A scaling out methodology will be developed for delivery via an ICT solution.

### Activity 4. Seamless suite of forecasts, advisory and early warning products

CIMMYT will develop a seamless suite of forecasts (seasonal, medium and short range) that can be utilized by WorldFish and national partners in Bangladesh to develop advisory and early warning products.

### Activity 5. Cloud-based decision support service for fisheries

The project will develop a cloud-based decision support engine to assist aquaculture/fisheries to provide practical recommendations based on fish thermal and saline tolerance modeling and other sources of information.

### Activity 6. Digital platform deployed to farm-level users and farm boundary service sector

A digital platform will be deployed that promotes informed decision making by providing instant access to farm-level advisory services based on information from multiple sources, ranging from the internet to mobile digital platforms.

### Activity 7. Communicating the project findings

Project findings will be shared at annual in-country workshops and through project briefs and outcome stories.

## Expected impacts by 2021



330,000 farm households in India receive climate services



150,000 fish farming households in Odisha and Bangladesh receive climate services

## Donors

CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS), Swiss Agency for Development and Cooperation (SDC), Ministry of Earth Sciences, Government of India via the Indian Institute of Tropical Meteorology (IITM) Monsoon Mission II, state governments

## Partners

ICRISAT, CIMMYT, WorldFish, International Research Institute for Climate and Society (IRI), Columbia University, ACToday project, Orissa University of Agriculture and Technology (OUAT), Ministry of Earth Sciences (India), Andhra Pradesh Drought Mitigation Project (Government of Telangana, India), Government of Bangladesh

## Timeframe

January 2019–December 2021

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