A Case Study of
Good Practice in Climate Services from India
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India AAS Study by CCAFS

- Partnership with Indian Meteorological Department (IMD), State Agricultural Universities, ICRISAT

- Objectives:
  - Synthesize aspects of good practice that can guide investment in climate/weather services for farmers elsewhere
  - Not meant to quantify economic benefit

- Criteria:
  - Credibility
  - Salience
  - Legitimacy
  - Equity
Study Methods

- Qualitative methods
- AAS implementation:
  - Review of program documents
  - Discussions with IMD, Regional Met Centers, AMFUs, other institutional representatives involved in advisory development or communication
Study Methods

• Village component:
  – 6 states across India
  – Each state: random selection of 3 villages from 3 different agroclimatic zones
Study Methods

- Focus groups in selected villages
- Disaggregated by gender
- Progress from general, to climate, to AAS
Study Methods

- Structured interviews with men and women
- Specific uses of AAS: information used, channels, perceived gaps, suggestions
State-wise gender disaggregated AAS awareness amongst Farmers (in %)

- Himachal Pradesh
- Punjab
- West Bengal
- Andhra Pradesh
- Tamil Nadu
- Gujarat

% Women Awareness
% Male Awareness
Farmer in a village in Tamil Nadu displaying the SMS he received with agro advisories for the week.
State-wise AAS awareness and usability amongst farmers (in %)
AAS Bulletin outside milk collection station in a village in Andhra Pradesh. AAS Bulletins in vernacular are put up in 5 commonly visited places in the village.
Engaging Farmers
Targeting women groups
Initiatives by progressive farmers

Initiatives by local farmers
Making advisories salient
Crucial Information for farmers

Rainfall Forecasts

Male farmer from Amtrar, Himachal Pradesh
“Three years ago, I found out from a weekly advisory that rain was forecast and transplantation of paddy was recommended. I followed the advice and reaped a good crop. Farmers who did not follow the recommendation were delayed transplantation by 15-20 days and had lesser yields”

Male farmer from Amtrar, Himachal Pradesh
“Two years ago, the advisory recommended delaying harvesting of wheat crop based on heavy rainfall forecast. I did so and saved my crop. If I had harvested, then heavy rains would have destroyed the harvested grains left in the field”

Male farmer from Kannivadi, Tamil Nadu
“If rains are forecast then I postpone irrigation and that saves labour costs associated with it. Rainfall forecasts also help me decide on weeding and fertilizer application”
Crucial Information for farmers

Diseases and Pests Management

Female farmer from Amtrar, Himachal Pradesh
“Through the meetings with agricultural experts I learnt how to protect my cucumber crops. I got an apparatus which traps the flies that sit on the plant and destroy it. I have been using it for 5 months now and it has been very helpful in preventing fly attacks”

Female farmer from Chong, Himachal Pradesh
“My cabbage crop used to get infected with diseases. I used to spray pesticides but to no avail. I learnt from trainings that I should spray the pesticides at evening, instead of afternoon and then they become much more effective”

Male farmer from Kannivadi, Tamil Nadu
“I use the wind speed and direction forecast to inform pesticide spray and to provide structural support for crops. I also use rainfall forecasts to determine when to harvest”
Crucial Information for farmers

Fertilizer Application

Male Farmer from Andhra Pradesh
“I have less land. I used to apply DAP fertilizer every 30 days. Then I started listening to the forecasts and advisories, which said that it should be applied every 15-20 days. Since then, I have been able to increase yields in cotton by 4 quintals/acre.

Female farmer from Andhra Pradesh
“Earlier we used to spray fertilizers all over and a lot used to get wasted. We knew that, but still we did it since it was the easiest thing to do. But we learnt from the advisories that by spraying, not only is fertilizer wasted, but also yield is less. It (AAS) recommended crop-based application of fertilizers where quantity of fertilizer is less, but yield is more. Another thing is, fertilizer spraying could be done only by men, because the equipment used for spraying was heavy. With crop-based application on the other hand, women can do it too, so I find it beneficial”
Key Challenges

Equity Issues

Enabling factors

Communication

Scaling up
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