**CGIAR Research Program on
Climate Change, Agriculture and Food Security (CCAFS)**

**Organisational Baseline Study:
Overview Report for Haryana - Karnal, India**

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# INTRODUCTION

This is a report of the Organisational Baseline Survey (OBS) carried out in June of 2013. The interviews were conducted at 10 organisations that were working or collaborating with farmers and/or the community in Haryana, which is in the Karnal district of India. The Haryana research site lies in one of the most economically developed regions in South Asia and its agricultural industry has experienced sustained growth since the 1970s. The agro-climate of the state of Karnal is characterized by hot semiarid weather with dry summers and cool winters. Key climatic issues in the region are erratic rainfall and considerable inter dry spells during crop growing season, over-exploitation of groundwater resulting in the lowering of groundwater table, imperfect draining in some places, declining soil fertility owing to over exploitation of the resources and problems of salinity.

The Household Baseline Survey and Village Study established that crop production is the main occupation in the area, with 96% of households engaging in it, while 71% of households engage in both crop and livestock production.

CCAFS' organisational-level baseline studies supplement the quantitative household baseline surveys and the qualitative village baseline studies at the same locations.

The objectives of the organisational baseline study are to:

* Provide indicators to allow us to monitor changes in behaviours and practices of locally relevant organisations over time
* Understand the provision of information/services at the local level that informs farmers’ decision making about their livelihood strategies in response to climate change

# ORGANISATIONS INTERVIEWED

Prior to this organisational study, CCAFS conducted a participatory village study within the Karnal site. Participants of the village study were asked to create an institutional landscape of their community by listing the most important organisations that were active in the area and then providing information on how they were involved in the community. Specifically, the participants were asked which organisations were involved in food security activities, food crisis situations, and natural resource management (NRM) work. CCAFS then took the list of organisations and provided it to the interviewers conducting the Organisational Baseline Survey. The interviewers were given leeway to eliminate an organisation they believed was not relevant and to add any organisations that may have been left out of the village study discussions.

The village survey generated a list of 8 organisations for this site. Five were selected for interview after their relevance to the Organisation Baseline Study was established. Five additional organisations were selected for interview based on the interviewers' assessment.

Tabulated below is the list of organisations interviewed, omitted and added, with a brief description of their activities, as well as reasons for their inclusion or exclusion.

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| Organisation | Main areas of activity |
| A (Aganwadi) | is a village level organization of the Department of Welfare and Health, which focuses on the nutritional and health needs of children and young women, particularly pregnant women. |
| DAH (Department of Animal Husbandry) | provides immunization, veterinary and fertility services to dairy farmers. Promotes the production of green fodder, including the provision of seeds. Two members of this organisation were interviewed, the District Officer and the Block Officer, due to the prevalence of dairy production in the area. |
| DoA (Department of Agriculture) | provides quality agricultural inputs and information about crop production technology to farmers. Promotes and subsidises the production and use of green manure. Two members of this organisation were interviewed, the Development Officer and the Block Officer, due to the prevalence of agricultural activity in the area.  |
| PACS (Primary Agricultural Cooperative Credit Society) | is a cooperative organization of the farming community at a village level. It provides credit, mobilizes small savings, sells agricultural inputs and buys grain at procurement price from farmers. |
| PI (Panchayati Institute)also referred to as Grampanchayat | is managed by elected representatives of the village which appears to act as a hub for all-round development in the village, facilitating implementation and monitoring projects.  |
| Added Organisations | Activities and why they were included |
| APMC (Agriculture Produce Market Committee) | is engaged in facilitating the marketing of agricultural produce and compensating workers for losses due to accidents during agricultural operations.  |
| ATMA (Agricultural Technology Management Agency) | was included because it is engaged in transfer of farm technology, and thus relevant to agriculture and food security. |
| DoF (Department of Forestry) | was included for its considerable work in tree plantation which is relevant to climate change mitigation.  |
| IFFCO (Indian Farmers Fertiliser Cooperative limited) | was included for its contribution to agriculture and food security. IFFCO is a cooperative organization, helping farmers by making quality fertilizers and seeds at reasonable prices at the right time. |
| KVK (Agriculture Science Centre) | was included because it is engaged in transfer of farm technology, and thus relevant to agriculture and food security. |
| Eliminated Organisations | Why they were not included |
| Central Bank | was not included as it is a commercial bank and its activities are not directly related to food security, agricultural development and weather/climate change. |
| Public Distribution System (PDS) | was omitted because it is not an organisation but rather a government licensed shop for the distribution of food grain and other essential commodities. |
| Schools | was excluded because their activities are not directly related to food security, agricultural development and weather/climate change. |

## Inconsistencies and challenges:

 The interviewers commented on certain organisations' inability to deliver all the services they claim to provide. Inconsistencies between the activities mentioned during the interview and those being implemented in the field are listed below; some were expressed by the organisations themselves while others are the opinion of the interviewers. These have been included at this stage and will not be readdressed in the Summary of Activities section as some are opinion based and others are vague.

The DAH states that although they arrange fertility camps in villages, efforts do not meet the needs of dairy farmers.

The person in charge of Aganwadi is lacking the necessary level of education for her post and is having difficulty managing the centre's activities.

KVK collects weather information; however, there is no mechanism in place to make this information available to the farming community.

KVK has established a soil testing laboratory; however, none of the families' in the baseline or village studies reported having their soil tested by them.

KVK, DoA, IFFCO and PI reported that they are engaged in training of farmers, but very few farmers mentioned receiving training in our earlier interactions with them.

DoA, MANDI and ATMA all claim to provide weather information; however, according to the interviewers, in the Household Baseline Survey only 5% of households reported obtaining weather information from government officials.

 Overall, respondents identified the following as being their main challenges in delivering services and information:

* Non cooperation of farming community
* Insufficient funds for the number of needy households
* Procedural delays in identification of target groups for benefits
* Lack of trained staff

 Finally, many organizations claimed linkages with other organizations, but one-fourth of organizations failed to mention their contact details. This indicates poor linkage and coordination among departments/organizations at field level in the Karnal area.

# SUMMARY OF ACTIVITIES

 On the basis of information obtained from the organizational survey, the five most important objectives are:

1. provision of modern agricultural technology
2. arranging credit for farmers
3. immunization and treatment of animals
4. promotion of fodder production
5. creation of market infrastructure

 Almost all the organizations interviewed in the organizational survey claimed to be working on climate change mitigation. However, their efforts seem primarily restricted to providing contingent crop plans or assistance in case of extreme weather condition.

## Natural resource management:

 Soil management seems to be an area of natural resource management which is well attended to. Activities include soil testing (IFFCO, ATMA), soil conservation (DoA, IFFCO) and discouraging the burning of straw and crop residue (DoA, IFFCO, ATMA). Organisations are also disseminating ideas about how to improve soil health. IFFCO advocates the use of water soluble fertilisers. ATMA and DoA encourage the use of green manure (planting: Moong, Dhaincha and Urad bean) to improve soil fertility. DoA is further working to reduce pesticide use and promote the adoption of Integrated Pest Management.

 DOF is at the forefront of forest conservation, afforestation, social forestry and the distribution of seedlings. It is further using afforestation techniques to reclaim salt affected areas. PI is the only other organisation to make mention of tree planting, and its activities are limited to public road sides.

 Water management is also a well addressed area. PI is responsible for supplying drinking water, boring wells and digging drains. Water testing is carried out by ATMA, which also promotes water conservation by discouraging farmers from growing sathi paddy crops. The MANDI and DoA also encourage farmers to favour less water hungry crops The former promotes pulses, the latter short duration crops, maize and direct seeded rice. Both the DoA and PI discourage flood irrigation in favour of drip and micro-irrigation. The DoA is further involved in conservation through water-recharge-system and underground-pipeline schemes, as well as rainwater harvesting.

 Finally the DOF is working for effective waste management; implementing and promoting "Reduce, Reuse and Recycle". The DOF is also focused on protecting habitats and wildlife.

## Preparation to withstand extreme events:

 Only two organisations mention this. The AH states that it provides farmers with information about how to care for their livestock in extreme weather, the KVK offers the same service but extends to giving information on protecting crops as well.

## Reduction of risk due to climate variability:

 Weather information is provided by IFFCO, DoA (via mass media) and MANDI (via a free helpline). ATMA runs a more targeted project, whereby it provides a list of progressive farmers to the State Agriculture University, which in turn sends them weather forecasts via SMS.

 ATMA is responsible for implementing schemes such as RKVY (National Agriculture Development Scheme) and NFSM (National Food Security Mission) which are aimed at improving the food security status of farmers.

 AH provides information and training on making silage and hay for periods of scarcity.

 Finally, PACS promotes income generating activities, provides information about handicrafts and supports saving.

## Activities' Relationship to Climate Change:

 Due to the use of lists and concise descriptions, there is some ambiguity as to whether the activities in the above three subsections are climate change related activities. They have been listed because they do relate to climate change; however, in most cases they may be being implemented for other reasons, such as to improve agricultural productivity or to overcome natural year to year variability. Thus the organisations' climate change activities are may be activities that date back to before there was a focus on climate change, and their attention to it is a by-product. For example, the water management efforts seem clearly related to coping with the rapid decline in the area's water table resulting from the long term use of water loving crops such as rice and wheat.

 Nevertheless, two organisations make direct mention of climate change. The ATMA asserts that it is promoting research in the field of climate change mitigation by providing scientists with funds. Meanwhile, the DOF lists three climate change related topics among its current objectives:

* To work towards the inclusion of emissions from deforestation and forest degradation in the new climate regime
* To take early action to achieve cost effective and real reduction in greenhouse gas emissions
* We promote afforestation through Agroforestry and farm forests which have direct effects on climate change

 The DoA was identified by the interviewers as being the only organisation offering information relating to climate change and implementing activities related to mitigation.

 According to the interviewers, "most organizations reported that they are undertaking climate change adaptation and/or mitigation activities but few of them indicated a start time for these activities. Officials are aware about climate change and its adverse effect on agriculture and livelihood of communities but they are not even making the rural households aware about the climate change."

 The interviewers seemed disturbed both by the lack of services relating to climate change and the lack of awareness that there is a failing in the area. They stated that, "almost all organizations identified its headquarters as driving force to undertake any activity including climate change adaptation/mitigation. Despite non-existence of any activity related to climate change, the majority of respondents could not mention any gap in the area of climate related activities". They went on to suggest a ground level transfer of information and technology pertaining to climate change, crop varieties, animal breeds and fish species, which would thrive in the changing climate scenario.