

DIAGNOSIS OF THE GENERAL AGRICULTURAL PROBLEMS OF FARMERS THROUGH VILLAGE LEVEL PARTICIPATORY APPROACH IN MAHBOOBNAGAR DISTRICT OF ANDHRA PRADESH*

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A major challenge in Indian agricultural development is to meet the food needs and need for raw material of the country, which can be achieved through planned development activity. People participation and partnership play a vital role in its achievement. Farmers are the backbone of agricultural development, who performs different farming activities from seed to seed. Existing Research and Extension systems operate largely in a top down manner. Usually scientists themselves decide the research agenda, which is often based upon their limited exposure to the real problems faced by farmers. The involvement of extension personnel and farmers in the above process is limited and passive.

In view of above facts, an attempt was made to diagnose the general agricultural problems of farmers through Village Level Participatory Approach (VLPA) in Mahaboobnagar district of Andhra Pradesh.

Methodology

The investigation was conducted in Mahboobnagar district of Andhra Pradesh. Out of 64 mandals in the district, one mandal namely, Bhoothpur was selected at random which has 17 villages, of which 5 villages – Kothamolagara, Annasagar, Elkicharla, Bhootpur and Pothulamadugu were selected by simple random sampling method. An exploratory research design was adopted. Data were collected through Village Level Participatory Approach (VLPA) using participatory tools which are designed to capture data from all the sections of the farming community.

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The tools used for data collection are given below

- a) Village mapping
- b) Transect
- c) Semistructred interview
- d) Venn diagram
- e) Ranking method
- f) Prioritization

The researcher, after developing rapport with key important figures of the village were given an introduction to the significance of diagnosing the general agriculture problems through Village Level Participatory Approach (VLPA). For the purpose of this investigation, villagers were divided into three groups namely a) farmers b) farm women c) farm youth representing poor, small, marginal and rich farmers.

Step I Mapping: The first step in the actual process was drawing a village map by different group of farmers to know their resources and social structures etc.

Step 2: Transect: Based on the map, transect was undertaken to know the soil type, crop growth, vegetation and general problems etc.

Step 3: Venn diagram: To illustrate the roles and inter relationships of external and internal organizations and key individuals in the village, venn diagrams were drawn by the farmers.

Step 4: Semi-Structured Interviews: These interviews were conducted with different socio-interest groups (men, women & youth) using checklists prepared in consultation with experts. On an average, 55 members participated in each group of five villages.

This involved the intensive and systematic capturing of observing phenomena and process within their natural surroundings. As a rule, the results of direct observations were cross-checked with key informant's interview to verify the correctness.

Step 5 : Prioritization of Problems: This was done by preference ranking method. Sets of problems to be prioritized were presented. 'Stones' were used for scoring. The villagers were asked to assign scores to each problem. (5 stones for the most critical problem and one stone for least critical problem) and summed up the scores and ranked according to order of priority. Thus different tools used with triangulation principle were used to identity important problems in agriculture.

Results and Discussions

The following table shows the list of general agricultural problems in different villages as perceived by majority of the farmers through the use of participatory tools. The cross mark (X) indicates the presence of that particular problem and dash (—) indicates that the problem was not felt by the farmers.

Table 1 shows that a majority of the problems common in all the five study villages were lack of irrigation facilities, depletion of ground water, drying

Table 1: Showing the list of general agriculture problems in different villages

S. No.	Problems molgara	Kotha	Anna sagar	Eliki cherla	Bhootpur	Potula madugu
1.	Lack of irrigation facility	X	X	X	X	X
2.	Depletion of ground water	X	X	X	X	X
3.	Drying up of irrigation borewells	X	X	X	X	X
4.	Low rainfall since seven years	X	X	X	X	X
5.	Prolonged dry spells	X	X	-	-	X
6.	Much of cultivated land left fallow	-	X	X	X	X
7.	Existence of poor soils	X	X	X	X	X
8.	Poor usage of organic manures	X	X	X	X	X
9.	Salinity is a major problem	X	-	X	X	X
10.	Lack of knowledge about the soil reclamation	X	X	X	X	X
11.	Using inadequate quantities of green leaf manures	X	-	-	-	X
12.	Majority of cultivable lands are uneven	X	X	X	-	X
13.	Non availability of quality seed	X	-	X	X	X
14.	Lack of seed treatment	X	X	X	-	X
15.	Lack of knowledge in soil testing	-	X	X	X	X
16.	Non use of recommended doses of fertilizer	X	X	X	X	X
17.	Lack of knowledge about water management in different crops	X	X	X	X	X
18.	Un availability of credit facilities	X	X	X	-	X
19.	Storage facilities not available	-	-	-	-	-

up of bore wells, low rain fall, existence of poor soils, soil salinity, use of inadequate quantities of organic manures, lack of seed treatment, non use of recommended dose of fertilizers, and lack of knowledge about water management practices. The problem of fallow lands was not felt by the farmers of Kothamolgara, Elkicherla and Bhoothpur villages whereas poor usage of organic manures were not felt by Annasager, and Pothulamadu farmers. Though saline soils were problematic in these villages, difficulties related to soil reclamation were not expressed by Annasagar and Bhoothpur villages as they were satisfied with the reclamation measures they took up in their fields. Uneven lands are the common feature in these areas although Annasagar, Elkicherla and Bhoothpur farmers have not felt it as a major problems. Similarly, non availability of quality seed was a major constraint in the study villages. This problem was not felt by Bhoothpur as there were seed agencies in the village itself. Though credit facilities were available, farmers were not in a position to use it properly due to lack of repaying capacity. Hence this problem was felt by all villages except Bhoothpur.

Priority problems in different village

The following priority problems were identified by the farmers in different villages. Farmers from each village prioritized five problems each as most critical problems. These problems are given in table 2.

Table 2 Showing village wise priority problems

Kothamolagara

- Lack of irrigation facilities
- Non working of irrigated bore wells
- Poor usage of organic manures
- Soil salinity problems
- Non availability of quality seed

Annasagar

- Lack of irrigation facility
- Existence of poor soils
- Non use of recommended doses of pesticides
- Soil salinity problems
- Non availability of quality seeds

Elicherla

Lack of irrigation facilities
 Non working of irrigation bore wells
 Existence of poor soil
 Lack of seed treatment
 Lack of knowledge of soil reclamation

Bothpur

Lack of irrigation facilities
 Poor usage of organic manures
 Existence of poor soils
 Lack of seed treatment
 Non use of recommended fertilizers

Pothulamadugu

Lack of irrigation facilities
 Soil salinity problem
 Lack of knowledge of reclamation
 Non use of recommended fertilizers
 Non availability of quality seed

Farmers from each village prioritized five problems as most critical problems. These problems are listed in table 3.

Table 3: List of priority problems in all the five villages

Lack of irrigation facilities
 Lack of water in irrigated bores
 Soil salinity problem
 Existence of poor soils
 Non availability of quality seed
 Poor usage of organic manures
 Lack of knowledge of soil reclamation
 Lack of knowledge of seed treatment
 Non use of recommended fertilizers
 Non use of recommended doses of pesticides

Ranking of priority problems

The following table 4 shows the ranking of preference by the farmers. The preference was based on farmer perception about the severity of the problem compared to the other problems in that village.

Table 4. Showing the preference ranking by the farmers

S. No	Problems	Kotha molgara	Anna sagar	Eliki Cherla	Bhoo tpur	Potula madugu	Total Score	Rank
1.	Lack of irrigation facilities	10	10	10	10	10	50	I
2.	Lack of water in irrigated bores	7	3	8	5	6	29	VII
3.	Soil salinity problem	8	7	6	6	8	35	IV
4.	Existence of poor soils	2	9	9	8	3	31	V
5.	Non availability of quality seed	9	8	6	7	10	40	II
6.	Poor usage of organic manures	6	3	4	8	6	27	VIII
7.	Lack of knowledge on soil reclamation	5	6	7	5	7	30	VI
8.	Lack of knowledge on seed treatment	7	7	8	9	5	36	III
9.	Non use of recommended doses of fertilizers	4	5	3	6	6	24	X
10.	Non use of recommended doses of pesticides	6	8	2	7	4	26	IX

From table 4, it is evident that lack of irrigation facility was the most critical problem followed by non availability of quality seed, lack of knowledge about seed treatment, soil salinity, existing of poor soils, lack of knowledge on soil reclamation, lack of water in irrigation bores, poor usage of organic manures, non use of recommended does of pesticides and non use of recommended doses of fertilizers. However, the preference differed from village to village. For example, existence of poor soils was not a preference in pothulamadugu and kothamolgara compared to other villages, whereas lack of irrigation facilities was felt by the farmers of all the villages. Since rainfall is very low, the ground water levels have diminished and most of the bore wells are not in operation and same is the case with tanks, which are breached. This lead to a serious problem of irrigation facilities, which need to be redressed by rehabilitation of tanks and taking up watershed development programmes. Similarly. Non-availability of quantity inputs is a major problem although it was less intensive in Bhoothpur and Annasagar, since there were stockists available in those villages. However,

it is important that educated unemployed rural youth in these villages should be trained and organized into groups for taking up seed production activities and for selling other inputs.

In addition, farmer to farmer seed production needs to be encouraged. Similarly, lack of knowledge on seed treatment and salinity, usage of organic manures and fertilizers in recommended doses can be tackled by education and training.

Conclusions

General agricultural problems were identified through a sound methodology (participatory approach), which made farmers to think, discuss and come to a consensus. This process not only improved knowledge about the real situations among farmers but also made them think about possible solutions for their problems. Further, it has also given a direction to maintain contacts with agricultural and allied sectors in addition to utilizing resources and opportunities available in the villages.

This methodology could be used by development workers to identify and prioritize the problems in the villages through participatory process. This can set the pace for preparation of micro plans with farmer's participation.

References

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