



Suggestions Offered by Unreached Farmers, Scientists and Extension Functionaries for Reaching the Unreached Farmers of Tamil Nadu State

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ABSTRACT

In a country like India, agriculture is a major source of income. As reported by many organizations and institutions India stands first and a major producer in many products like fresh fruits, vegetables, milk, important spices, jute, millets etc. More than 70 per cent of population is depending on agriculture for sustainable livelihood and about 60 per cent of total net sown area is under rainfed agriculture (GK Today, 2014) and stands first in value of rainfed products. Around 17 per cent of the total world population is residing only in India. Population increased many fold over a period, to feed every stomach it is essential to cultivate more area from the available land especially small and marginal farms. Government of India and state governments intervened in different aspects to increase production by effectively utilizing all the possible resources. Majority of Indian farmers are still unreached to modern technologies because of various reasons even after all possible interventions were made by the government. From the present study on 'Suggestions offered by unreached farmers, scientists and extension functionaries for reaching the unreached farmers of Tamil Nadu State' we could find many suggestions as provided by the unreached farmers, extension functionaries of the state department of agriculture of Tamil Nadu and extension scientists of state agricultural universities. The suggestions (30 numbers) offered may be considered to enhance the production by effective utilization of available resources of small and marginal farms along with progressive farmers.

Keywords- Suggestions, unreached farmers, extension personnel, scientists

INTRODUCTION

Agriculture plays a vital role in the country's economy. Its contribution to Gross Domestic Product (GDP) is 16.1 per cent in the year 2015 and could provide employment to 56.00 per cent of Indian work force (Mahendra Dev, 2012). Agriculture not only supports the national economic growth but also provides employment and food security to all. Since independence rapid steps were made in Indian agriculture in taking the food grain production from 51 million tonnes in fifties to the present total food grain production of 252.23 million tonnes in 2015-16 crop year has been higher by 0.21 million tonnes over the production of 252.02 million tonnes during 2014-15 (Economic Times, 2016). India has more area under cultivation against worlds' average cultivable area. Most of the countries raise only single crop but India has potential to go for two crops a year.

Indian agriculture suffers from various problems, the greatest being the population pressure which needs to feed millions. Because of the population pressure, the per capita availability of cultivable land has come down and distributed unevenly.

Interventions from Government of India and the State government at various level is very essential to improve agricultural. The fact is that, the Government of India (GoI) implemented various programmes and projects viz., Community Development Programme (CDP, 1952), Intensive Agriculture Development Program (IADP, 1960), Intensive Agriculture Area Program (IAAP, 1964), Marginal Farmer and Agriculture Labor Agency (MFALA, 1973), Small Farmer Development Agency (SFDA, 1974), Minikit programme in Rice, Wheat & Coarse cereals in 1974, T & V system came in to existence in 1974, Coconut Development Board (CDB, 1981), Farmer Agriculture Service Centres (FASC, 1983),

National Oilseeds and Vegetable Oils Development Board (NOVODB, 1984), Comprehensive Crop Insurance Scheme (1985), National Pulses Development Project (NPDP, 1986), Agricultural and Rural Debt Relief Scheme (1990), Oil Palm Development Programme (1992), Accelerated Maize Development Programme (MDP, 1995) etc., for the development of Agriculture with the support of Indian Council of Agricultural Research, State Agricultural University, Central University and other Research institutions in order to cover major areas and increase production.

But, the resource rich and risk bearing progressive farmers were highly concentrated while implementation of the programmes and projects and also delivering extension services (as noticed by the researcher in pre-survey). Most of the marginal, small, illiterate and resource poor farmers were neglected or were un-reached for the formal extension system in transfer of technologies.

Keeping in view, the present study has been designed to find out feasible suggestions offered by unreached farmers, scientists and extension functionaries for reaching the unreached farmers with the objective i.e., 'to find out the feasible suggestions for reaching the unreached as perceived by the unreached farmers, extension personnel and scientists'. The study on suggestions offered by unreached farmers, scientists and extension personnel would help the policy makers to take further necessary steps in strengthening the extension activities/services for reaching the unreached farmers and also to promote sustainability in farming.

MATERIALS AND METHODS

An ex-post facto research design was used for the study. According to Kerlinger (1968), ex-post facto research is a systematic empirical enquiry in which the scientists do not have direct control of influencing independent variables because their manifestations have already been occurred. A total of 300 unreached farmers were selected for the study by administering a structured interview schedule and a total of 100 respondents i.e., 75 extension personnel and 25 scientists were also selected to acquire better insight into the problem. These 300 farmers were selected from the districts having least production of major crops viz., paddy, groundnut and maize i.e., Vellore in North Eastern Zone, Krishnagiri in North Western Zone, Perambalur in Cauvery Delta Zone, Sivagangai in South Zone and Tiruppur in Western Zone of Tamil Nadu state. The sampling method used for the study was purposive and random sampling method. Purposive sampling method was used to select 300 unreached farmers from the selected districts of Tamil Nadu and random sampling method was used to identify scientists and extension personnel. The study was conducted with the objective 'to find out the feasible suggestions for reaching the unreached as perceived by the unreached farmers, extension personnel and scientists'. The frequency, percentage analysis and ranking were used for proper interpretation.

RESULTS AND DISCUSSION

A list of suggestions as given by unreached farmers, scientists and extension functionaries to overcome problems of being unreached, were prioritized and ranked based on frequency and percentage as shown in table 1.

Conducting meetings before sowing and suggesting crops to be grown by the farmers', inviting rural youths during training programmes and using them for technology transfer on improved and mechanized form of agriculture, formation of lead groups in all villages of 15-20 members to provide first-hand and need based information, connecting all the groups with locally available extension person of the respective region/village and rewarding farmers who adopt recommended technologies and extension personnel who show outstanding performance in transfer of technology were suggestions offered by the respondents ranked number one (1).

A suggestion on short scheme to be announced for every season which ensures better services to farmers was ranked second (2). It helps farmer to plan accordingly well in advance so that he can take a decision on adoption of recommended crop production technologies. During the scheme period the extension functionaries should visit the fields along with farmers throughout the season (i.e., sowing to harvest) in-order to ensure better crop production".

Timely supply of good quality seed to each and every farmer ensures food security. Hence the suggestion offered on timely supply of good quality seed to unreached farmers was ranked 3 (third).

The Government to hire agricultural implements to farmers during peak season at reasonable price was ranked 4 (fourth). It would be an immense help because majority of farmers have spent huge amount to avail facilities of farm mechanization since they earn very little from their marginal and small land holdings.

The reporting work of extension functionaries sideline them from their main work i.e., field visits and transfer of technology, government may concentrating on utility of the services of the extension functionaries only for transfer of technology

and not for other table work like report writing which ranked as fifth (5).

The sixth position was occupied by suggestion on Analysis and reporting about the nutrient status of soil and quality of water available in the farmer's field. A poor knowledge on nutrient content of the soil and quality of water was found to be another problem of respondents. Hence, it is suggested to recommend suitable crops for each farming situations after analyzing nutrient status of the soil.

Being marginal and small, unreached farmers cannot with-stand unexpected circumstances viz., drought, pest and disease infestation, fire accidents, floods etc., extension of crop insurance cover to unreached small and marginal farmers was suggested as seventh problem.

A strict schedule for AO's and AEO's to visit the farmer fields regularly on fixed days was ranked eighth. Strict schedule of visit by farmers and extension functionaries would help them to seek and share information on regular basis. Maintenance of a "diary or visit register of extension functionaries which should be counter signed by farmers regularly were ranked ninth. Hence, the extension functionaries of the state Department of Agriculture should maintain diary of their visits which ensure their visits on a regular basis to a farmer's fields for disseminating need based information on time during the cropping season.

Unreached farmers were solely depending on personal localites for seeking information on agriculture due to lack of awareness on different sources. The suggestion provided to overcome the problem was creating awareness among unreached farmers on different sources of agricultural information which was ranked tenth.

With limited staff in the State Department of Agriculture the government may not ensure

services to all the farmers. The solution as perceived by the respondents to solve this problem of sufficient extension functionaries was to appointing more number of AEO's and AO's for transfer of technologies was ranked eleventh.

The cost of fertilizer and pesticide increased many folds over a decade. Unreached farmers cannot afford to purchase required quantity of chemicals for their field. Therefore, it is suggested that the fertilizers and pesticides should be made available at minimum prices for marginal and small farmers was ranked twelfth.

Farmers also faced the problem of non-availability of credit in time. Usually, limited credit facilities are made available to farmers through the Primary Agricultural Co-operative banks in the villages, but a cumbersome procedure has to be followed in availing loan. Hence, it was felt as a constraint by the respondents. It can be solved by simplifying the procedure for availing loans was ranked thirteenth.

About 70.67 per cent of the respondents possessed medium to low level of knowledge on recommended crop production practices which lead to poor yield. In-order to ensure minimum income from their produce harvested after very hard battle, it is very essential to establish good storage facility which facilitates farmers to store their produce for reasonable time and sell it away when it fetches good market price. Problems like poor transport, storage facility, lack of market information forced the farmers to sell their produce at less price to traders, middle-men etc., on the same day of harvest. The perceived solution to overcome the problem is to establish storage/cold storage facilities for a cluster of villages was ranked fourteenth suggestion of the respondents.

Table-1, Suggestions offered by unreached farmers, scientists and extension functionaries (N=400)

Sl. No.	Suggestions	Unreached farmers (n=300)		Scientists (n=25)		Extension functionaries (n=75)		Total (N=400)		Rank
		No.	%	No.	%	No.	%	No.	%	
1	Creating awareness among unreached farmers on different sources of agricultural information	284	94.67	25	100.00	60	80.00	369	92.25	X
2	Conducting meetings before sowing and suggestions for the crop to be grown by the farmers	300	100.00	25	100.00	75	100.00	400	100.00	I
3	Strict schedule of AO and AEO's visits to the farms on fixed days	287	95.66	25	100.00	63	84.00	375	93.75	VIII
4	Analysis and reporting about the nutrient status of soil and also quality of water available in farmer fields	300	100.00	22	88.00	57	76.00	379	94.75	VI
5	Improving irrigation facilities by digging bore wells	210	70.00	23	92.00	57	76.00	290	72.70	XVII
6	Timely supply of good quality seed especially to unreached farmers	300	100.00	25	100.00	66	88.00	391	97.75	III
7	Fertilizers and pesticides must be made available at reasonable prices for marginal and small farmers	268	89.33	25	100.00	69	92.00	362	90.50	XII
8	Government must hire agricultural implements to farmers during peak season periods	300	100.00	19	76.00	71	94.66	390	97.50	IV
9	Agricultural implements should be provided to farmers at subsidized rate	170	56.66	23	92.00	44	58.66	237	59.25	XX
10	Establishing a platform to disseminate market information to unreached farmers	300	100.00	25	100.00	73	97.33	400	100.00	I
11	Improving transport facility during harvest period	280	93.33	18	72.00	37	49.33	335	83.75	XVI
12	Stabilizing market price for the farm produce	300	100.00	25	100.00	75	100.00	400	100.00	I
13	Direct procurement of agricultural produce from farmers by the government	300	100.00	25	100.00	75	100.00	400	100.00	I

14	Establishment of storage godowns and cold storage facilities for every five to ten villages or atleast at taluk level	287	95.66	21	84.00	43	57.33	351	87.78	XIV
15	Simplifying the procedure for availing bank loans and extending the crop loans to unreached farmers	300	100.00	23	92.00	34	45.33	357	89.25	XIII
16	Extending crop insurance to unreached farmers during uncertainties	300	100.00	21	84.00	57	76.00	378	94.50	VII
17	Diary or a visit register should be maintained by extension functionaries during their visit to farmers fields and it should be counter signed by farmers.	300	100.00	25	100.00	46	61.33	371	92.75	IX
18	Appointing more number of AEO's and AO's to transfer technologies	271	90.33	25	100.00	71	94.66	367	91.75	XI
19	Conducting training programmes for unreached farmers on usage of modern gadgets to access information on crop production	161	53.66	25	100.00	75	100.00	261	65.25	XIX
20	Regular follow-up on the trainings given to farmers on advanced crop production	200	66.66	25	100.00	65	86.66	290	72.50	XVIII
21	Short schemes for transfer of technology	300	100.00	24	96.00	75	100.00	399	99.75	II
22	Reducing paper workload for extension functionaries	300	100.00	22	88.00	63	84.00	385	96.25	V
23	Providing transport facility for extension functionaries to visit fields	148	49.33	16	64.00	47	62.66	211	52.75	XXI
24	Involving more farm women while conducting awareness programmes and training	249	83.00	25	100.00	68	90.66	342	85.50	XV
25	Inviting rural youth for training programmes and using them for technology transfer on improved and mechanized form of agriculture	300	100.00	25	100.00	75	100.00	400	100.00	I
26	Formation of lead groups in every villages comprising 15-20 members to provide first-hand and need based information on agriculture.	300	100.00	25	100.00	75	100.00	400	100.00	I

27	Ensuring membership of every farmer in any one of the farmer groups in a villages for the timely information on crop production	300	100.00	25	100.00	75	100.00	400	100.00	I
28	Connect all the farmer groups formed in a village with a selected extension person of the respective region/village	300	100.00	25	100.00	75	100.00	400	100.00	I
29	Reward a farmer who adopts maximum technology first than others	300	100.00	25	100.00	75	100.00	400	100.00	I
30	Reward extension personnel who perform outstanding service in transfer of technology	300	100.00	25	100.00	75	100.00	400	100.00	I

* (Multiple responses obtained)

Most of the farm related activities were performed by women, but they were given less importance while organizing meeting, camps, trainings and field tours. Improving their knowledge by inclusion in the events like meeting, camps, trainings, visits or tours will provide a way for better utilization of man power because, farm women perform on par with men in all spheres of agriculture. To overcome the problem of neglecting farm women is involving them all while conducting awareness programmes and trainings was ranked fifteen the suggestion.

As discussed that, poor transport and storage facility, lack of market information forced farmers to sell away their produce at lower prices to traders, middlemen on the same day of harvest. It was suggested by the farmers to improve transport facility during harvest season was ranked sixteenth. The information given to farmers on market along with transport facility during peak season would help them to search suitable markets within their district or even entire state for selling their produce.

Water scarcity is another major problem in many parts of our country. It was suggested to improve irrigation facility by digging bore wells by government was ranked seventeenth suggestion.

The eighteenth rank was occupied by regular follow-up on the trainings given to farmers on advanced crop production techniques. The reason is that the extension functionaries do not have follow-up on the trainings provided to farmers. Hence, the information given to farmers through trainings, meetings, exhibitions etc., was underutilized or sometimes unutilized. This seems to be the unnecessary expenditure on the part of government and therefore the purpose was not served as expected.

The farmers possessed smart phones and some have also laptops provided by the government of Tamil Nadu were not fully utilized. About 86.33 per cent of the

respondents were belonged to medium (66.33 %) to high (20.00 %) level possession of modern electronic gadgets.

The successful farmer is one who utilizes the information on right time for right purpose. With the limited extension functionaries, it is not possible to meet every farmer through face to face contact and deliver information on time. Hence, it was suggested to overcome the problem of delayed information to the respondents is conducting training programmes for unreached farmers on the usage of modern electronic gadgets to access information related to crop production and the suggestion is ranked nineteen. The available resources can be fruitfully utilized for sharing information related to agriculture by organizing more number of training programmes.

Agricultural implements should be made available to farmers at more subsidized rate was ranked twentieth. It aims at transforming our traditional farmers to modern by saving time and improving precision in agriculture through a special scheme or programmes to supply them at lower price.

Most of the unreached farmers were very far from head-quarters that to with poor transport facilities. Hence, the extension functionaries face difficulties as it takes huge time for travel. To solve the problem it is suggested to provide transport facility for extension functionaries to visit fields was ranked twenty first suggestion. These are the important suggestions given by the respondents to improve agriculture in very remote and interior parts of the state of Tamil Nadu.

The suggestions offered by the respondents in this study is on line with the findings of Sikka *et al.* (1980) who suggested that in order to bring about steady progress in production and stabilize the prices, it is essential to bring the regulation in

marketing, such as declaration of minimum support price, formation of regulated markets in producing centers, introduction of organized procuring and storing systems.

The constraints reported by Sirajudeen (1980) and Vijayalan (2001) were lack of adequate transport facilities, interference of middlemen (or) commission agents, price fluctuation, high transporting and loading cost, labour scarcity, high cost of labour, lack of training, inability to attend extension programmes and high cost of inputs.

CONCLUSION

Agriculture in India over a period underwent drastic changes. It attained self-sufficiency after a long battle against climate, monsoon, pest, diseases etc. In order to maintain the status of self-sufficiency in food production, it is very much essential to find out the problems faced by the farmers and provide feasible suggestions. The suggestions offered in this study will immensely help to take appropriate measures, in order to feed the future generation without depending on import from other countries and going for genetically altered food crops. It is pertinent to say that, still majority of our farmers are against genetically altered or modified crops. Hence, it is the time to rectify the drawbacks identified and to retain the farmers in farming and pull others especially the rural youth in to agriculture with support from the government. The suggestions offered by the respondents in the study may be further analyzed to propose a suitable strategy for reaching the unreached.

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