

## Constraint Analysis and Suggestions elicited from the farmers of Adopted and Non- Adopted Villages of KVK

### A Manoj, G Sivanarayana, Ch Ramesh Babu and V Srinivasa Rao

Department of Exetension Education, Agricultural College, Bapatla-522101

#### **ABSTRACT**

The study was undertaken to analyze the constraints perceived and suggestions given by the farmers of adopted and non adopted villages of KVK in Srikakulam district of Andhra Pradesh. Constraints were grouped into four broad areas such as personal, socio-economical, technical and organizational constraints. Study revealed that both adopted and non-adopted village farmers expressed high wage rate of labour (100.00%) as a major constraint. Beside this, equal number (97.50%) of the adopted villages farmers reported that lack of marketing & storage facilities and non availability of labour were the next major constraints. whereas, majority of the non-adopted village farmers expressed that lack of technical guidance (97.50%) followed by high cost of fertilizers (95.00%) were the major constraints. Regarding suggestions to overcome the mentioned problems, majority of the adopted village farmers indicated that awareness programmes need to be conducted (95.00%), selection of the practicing farmers (90.00%), off campus training programmes need to be maintained (82.50%). In case of non-adopted villages, majority of the farmers suggested that political influence should be reduced in supplying of inputs (97.50%), need for provision of marketing & storage facilities (95.00%) and provision of fertilizers on subsidized rates (90.00%).

**Key words:** Adopted and non-adopted village farmers, Constraints, KVK, Suggestions.

Many countries have recognized the need to revive agricultural advisory or extension services as a means of using agriculture as an engine of pro-poor growth; reaching marginalized, poor, and even women farmers. Inspite of ample experience with extension reform worldwide, identifying the reform options most likely to make extension more demand-driven (responsive and accountable to all farmers) remains a major challenge. To pursue the existing challenge, the Indian Council of Agricultural Research (ICAR), launched Krishi Vigyan Kendra (KVK) as an innovative project for testing and transfer of Agricultural technologies to increase the farmer's access to valid and reliable information resulted in augmenting economic power of the farmers. It is also worth nothing that it is no longer enough for research to generate technology alone. The required technology is also to be delivered. Hence the ultimate measure of the usefulness and benefits of technology can contribute to economic growth and development only when it is successfully transferred and properly applied by a

large number of the intended end-users. Keep this in view, the present study is undertaken to assess the constraints in transformation of information and technology experienced by the KVK adopted village farmers and their suggestions when compare with non-adopted village farmers.

#### MATERIAL AND METHODS

The present study was undertaken in Srikakulam district of Andhra Pradesh during 2006-2008 by adopting ex-post-facto research design in purposively selected four villages namely Chimalavalasa & Divanjipeta (adopted villages), Vanjarampeta & Guyyanavalasa (non-adopted villages), two each from the purposively selected two mandals namely Amadalavalasa and Rajam out of 37 mandals in Srikakulam district of Andhra Pradesh. A total of 80 farmers were selected with equal proportions 40 farmers from adopted villages and 40 farmers from non-adopted villages. Data were collected through a well structured interview schedule. The collected data were coded, classified

and tabulated. Finally, the statistical tests, like frequency and percentage were used to obtain meaningful findings and for drawing conclusions.

# RESULTS AND DISCUSSION 1. Constraints of farmers in the adopted and non-adopted villages

An attempt was made to find out the constraints perceived by the farmers of adopted and non-adopted villages. The researcher identified various types of constraints as detailed below. The response on each constraint was taken from the farmers of both adopted and non-adopted villages of KVK.

#### Personal constraints

It was evidence from the Table 1 clearly indicates that the majority (47.50%) of farmers of adopted villages stated that less outside contacts as the major constraint and it was bagged 1st rank followed by other constraints as less exposure to mass media (42.50%), lack of awareness about training programmes (40.00%) were ranked 2<sup>nd</sup> and 3<sup>rd</sup> in this category and perceived as major barriers to update the knowledge on advanced technology. Not willing to take risk (37.50%), was ranked 4th as it restricts the farmer to adopt the innovative ideas. Lack of decision-making ability (5.00%) and lack of self-confidence (2.50%) were considered as less intensity and ranked as 5th and 6th respectively. Whereas, majority (80.00%) of nonadopted village's farmers encountered that less exposure to mass media as the major constraint and ranked in 1st position followed by not willing to take risk (77.50%), lack of awareness about training programmes (75.00%), less outside contacts (67.50%) were ranked 2<sup>nd</sup> 3<sup>rd</sup> 4<sup>th</sup> position respectively. Lack of decision-making ability (25.00%) and lack of self-confidence (12.50%) were considered and given the ranks 5th and 6th as same as adopted village farmers.

The above results revealed that lack of outside contacts as well as mass media exposure as major constraints, which led the farmers towards poor knowledge about existing benefits such as technology, management practices, and credit facilities etc. Fact that the respondent farmers may accept the recommended practices, but their poor knowledge and economic status may not permit

them to adopt such innovative practices. Therefore, it could be necessary to organize On-farm trials, demonstrations, television shows regularly in a non formal way with active participation of both the scientists as well as farmers and also update the farmers with the help of farm publications about the latest emerging opportunities which having positive results interms of personal, social and economic growth among the farming community. These findings were in agreement with the result of Joseph Kumar (2006).

#### Socio- Economic constraints

From Table 1 it could be concluded that total number (100.00%) of the farmers in adopted and non-adopted villages expressed that high labour wages as the major constraint and ranked as 1st in both the cases. Lack of marketing and storage facilities (97.50%), high cost of fertilizers (92.50%), less social participation (90.00%), inadequate subsidy by Government (52.50%) were the other major constraints and given the ranks 2<sup>nd</sup> 3<sup>rd</sup>, 4th and 5th as perceived by the farmers of adopted villages. While, non-adopted village's farmers expressed that high cost of fertilizers (95.00%) followed by lack of marketing and storage facilities (87.50%), were next important constraints and given the ranks 2<sup>nd</sup> and 3<sup>rd</sup>. Less social participation (80.00%) and inadequate subsidy by Government (67.50%) were the other constraints and given the ranks as such as adopted villages respectively,

Results clearly highlighting that high labour wages as well as market and storage facilities as major constraints. So, it is necessary to ensure strict measures to set forth the minimum labour wages for farm worker including both men and women. Warehouses and cold storages needed to be constructed with in the villages with the help of the agricultural market committee to avoid the post harvest losses of many perishable products like fruits and vegetables. Supply fertilizers on affordable cost, transport facilities on low costs basis, minimum support price for the farm produce, guarantee fixed pricing structure in the time of natural calamities need to be provided to enhance the economic power of the rural farmer. There is a further need to have moral and social support from the State Department of Agriculture and other private and NGOs by organizing awareness camps

Table 1. Distribution of farmers according to the constraints faced by them.

S.N	Constraints	Adopted Villages			Non-Adopted Villages		
		F	%	Rank	F	%	Rank
	Personal constraints						
1	Not willing to take risk	15	37.50	IV	31	77.50	II
2	Lack of awareness about Training programmes	16	40.00	III	30	75.00	III
3	Lack of self-confidence	1	2.50	VI	5	12.50	VI
4	Lack of decision-making ability	2	5.00	V	10	25.00	V
5	Less outside contacts	19	47.50	I	27	67.50	IV
6	Less exposure to mass media	17	42.50	II	32	80.00	I
	Socio-economic						
1	constraints	27	02.50	111	20	05.00	TT
1	High cost of fertilizers	37	92.50	III	38	95.00	II
2 3	High labour wages	40	100.00	I	40	100.00	I
3	Lack of marketing and storage facilities	39	97.50	II	35	87.50	III
4	Inadequate subsidy by	21	52.50	V	27	67.50	V
5	Government Less social participation	36	90.00	IV	32	80.00	IV
	Technical constraints						
1	Lack of proper technical guidance	28	70.00	IV	39	97.50	I
2	Lack of knowledge about improved technology	18	45.00	V	35	87.50	III
3	Non-availability of labour	39	97.50	I	32	80.00	IV
4	Lack of sufficient technical staff	34	85.00	III	30	75.00	V
5	Lack of soil testing laboratories	38	95.00	II	37	92.50	II
	Organizational						
	constraints						
1	Less encouragement from concerned officers	24	60.00	III	31	77.50	II
2	Training centers are so far	7	17.50	V	13	32.50	III
3	Insufficient stipend during training programmes	22	55.00	IV	6	15.00	IV
4	Less exposure visits	26	65.00	II	37	92.50	I
5	Less training period	29	72.50	I	3	7.50	V

F= Frequency, % = Percentage

at village level to elicit the farmer's participation from all the sectors. These results were in line with the results of Anjanikumar and Jha (2001).

#### **Technical constraints:**

The Table1 clearly picturises that 97.50 per cent of the farmers in adopted villages expressed that non-availability of the labour was ranked as most important constraint in this category. Lack of soil testing laboratories (95.00%) was realized to be the next important constraint and ranked in 2<sup>nd</sup> position. Lack of sufficient technical staff (85.00%), lack of proper technical guidance (70.00%) and lack of knowledge about improved technology (45.00%) were other important constraints highlighting the technical weaknesses at field level and ranked as 3<sup>rd</sup> 4<sup>th</sup> and 5<sup>th</sup> respectively. Whereas, majority (97.50%) of the farmers in non-adopted villages stated that lack of technical guidance followed by the lack of soil testing laboratories (92.50%) were the key constraints. So these two causes were ranked 1st and 2nd respectively. Lack of knowledge about improved technology (87.50%) was another factor and it ranked 3<sup>rd</sup>. Non-availability of the labour (80.00%) and lack of sufficient technical staff (75.00%) were bagged as 4th and 5th ranks as perceived by the farmers of non-adopted village.

The above results indicating that there is a need to invent the low cost innovative technology, which can be applicable at farmer's condition to reduce the labour shortage. Adequate technical staff needs to be recruited for providing necessary and timely technical guidance to make farmer more self reliance in the process of problem solving and decision making while adopting the new & improved technologies and need to organize facilities for soil testing through mobile soil testing laboratories for each and every farmer in the village. These findings were in concurrence with the findings of Sudha Rani (1999).

#### **Organizational constraints**

A critical look at table 1 revealed that majority (72.50%) of the farmers of adopted villages perceived that the less training period as the major organizational constraint and it was occupied 1st rank followed by less exposure visits (65.00%), less encouragement from concerned officers (60.00%), insufficient stipend during training programmes

(55.00%) and training centers are so far (17.50%). Whereas, in non-adopted villages majority (92.50%) of the farmers perceived that less exposure visits as the major constraint and ranked it 1<sup>st</sup> followed by less encouragement from officers (77.50%), training centers are so far (32.50%), insufficient stipend during training programme (15.00%) and less training period (7.50%) as the other constraints in order of their importance.

The reason might be due to the multiplicity of the needs of the farmers. It is needed to motivate the farmers towards the adoption of innovation by conducting regular farm advisory services for providing technical and social support from research and extension institutions. Off campus training programmes and exposure visits need to be organized before commencement of the season to make farmer aware about particular technology and its consequences. These findings were in accordance with the findings of Rajesh Kumar *et al.* (1998).

It is obvious From the Table 2, that awareness training programmes should be conducted about advance methods before commencement of season (95.00%), selection of the practicing farmers to training without any political intervention (90.00%), off campus training programmes should be conducted frequently (82.50%), demonstration units need to be maintained properly to get the confidence towards improved technology (77.50%), conduct of more exposure visits (75.00%), Proper follow up activities need to be undertaken (70.00%), Provision of training on self employment activities (67.50%), continuous contact should be maintain with the farmers (65.00%) and Provision of sufficient stipend to the farmers during training programmes (52.50%) were the suggestions elicited by the farmers of adopted villages.

In the light of several constraints experienced by KVK farmers, it could be inferred that it is the responsibility of the KVK to bridge the gap by taking above mentioned suggestions into serious consideration in adoption of recommended crop production technologies. Further, the KVK need to be coordinated with all line-departments, Zonal Coordination Units, Regional Research Stations, Department of Agriculture and Rural Development and Welfare schemes for timely

Table 2. Distribution of farmers in the adopted villages of KVK according to their suggestions to overcome the constraints

S.No	Suggestions	F	%	Rank
1	Conduct more exposure visits	30	75.00	V
2	Awareness training programmes should be conducted about advanced techniques before commencement of the season	38	95.00	I
3	Off campus training programmes should be conducted frequently.	33	82.50	III
4	Demonstration units need to be maintained properly to get the confidence towards existing technology	31	77.50	IV
5	KVK scientists should maintain continuous contact with the farmers	26	65.00	VIII
6	Proper follow up activities need to be undertaken	28	70.00	VI
7	Provision of sufficient stipend to the farmers during training programmes	21	52.50	IX
8	Selection of the practicing farmers for training without any political intervention	36	90.00	II
9	Provision of training on self employment activities	27	67.50	VII

F= Frequency, % = Percentage

Table 3. Distribution of farmers in the non-adopted village of KVK according to their suggestions to overcome the constraints.

S.No	Suggestions	F	%	Rank
1	Providing good quality seed	33	82.50	V
2	Provision of marketing and storage facilities	38	95.00	II
3	Provision of credit facilities	35	87.50	IV
4	Provision of fertilizers on subsidy rates	36	90.00	III
5	Political influence should be reduced while distribution of inputs	39	97.50	I
6	Supplying effective plant protection chemicals	26	65.00	VIII
7	Providing exact control measures to reduce the pest and disease incidence	30	75.00	VII
8	Timely technical guidance	32	80.00	VI

F= Frequency, % = Percentage

updating the knowledge and also to take needed steps in improvement of the farmer's condition. These findings were on par with the findings of Ravishankar (2000).

From the Table 3, it could be inferred that the Political influence should be reduced while distribution of inputs (97.50%), Provision of marketing and storage facilities (95.00%), Provision of fertilizers on subsidy rates (90.00%), Provision of credit facilities (87.50%), providing good quality seed (82.50%), timely technical guidance (80.00%), Providing exact control measures to reduce the pest

and disease incidence (75.00%) and Supplying effective plant protection chemicals (65.00%) were the suggestions given in order of their importance by the farmers of non-adopted villages.

Thus, it is necessary that State Department of Agriculture, State Agricultural Universities and Government of India may oversee the suggestions given by Non- KVK farmers to overcome the constraints in adoption of recommended crop management practices. The results got backing from the studies conducted by Satyanarayana (2004).

#### Conclusion

From the above study it is concluded that the majority of the adopted village farmers of KVK experienced socio-economic and technical constraints than the personal and organizational constraints and also there are few similarities among constraints experienced by the both the farmers in study area. Hence, it is obvious to create further more differentiation between the KVK and non-KVK farmers by taking significant steps with consideration of given suggestions. The need for consultancy and guidance at all stages could be one of the most effective ways to solving constraints. Therefore, it is necessary for KVK to develop a comprehensive and appropriate framework for providing inspiration, constructive, constant and technical advice for the well-being of farmer towards their march to success in transfer of information and technology.

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