

Constraints and Suggestions expressed by Project Affected Farmers in Adoption of Modern Agricultural Technology

Umesh R. Chinchmalatpure¹ and V. V. Mayani²

Introduction

Sardar Sarovar Project (SSP) is an interstate, multipurpose river valley project, benefiting the four states in the western part of India. The SSP on completion would benefit, Gujarat, Madhya Pradesh, Maharashtra and Rajasthan. This project will provide irrigation facilities to about 18 lakh hectares of land covering 3393 villages of 62 talukas in 12 districts of Gujarat. It will also irrigate 75,000 ha. of land in the strategic desert districts of Barmer and Jalore in Rajasthan and 37,500 ha. in the tribal hilly tract of Maharashtra through lift irrigation. Its completion will be helpful to the Government's mission of making India economically stronger by producing hydropower, decreased dependence on imported petroleum and ensure food security. (Anonymous, 1999).

As per the latest information, a total 40,727 Project Affected Farmers (PAFs) are affected by this project, which includes 4,600 PAFs of Gujarat, 3,113 PAFs of Maharashtra and 33,014 PAFs of Madhya Pradesh. Out of the total PAFs in respective states, 999, 14000 and 4600 PAFs of Maharashtra, Madhya Pradesh and Gujarat respectively have opted to resettle in Gujarat State. (Anonymous, 1999). The Government of Gujarat has contributed to resettle these PAFs. The present study was undertaken with the objective of understanding constraints in adoption of improved agricultural technology in rehabilitated areas.

Methodology

The present study was purposively carried out in five talukas of Baroda district, where a large number of Project Affected Farmers (PAFs) are resettled. All vasahats falling under selected talukas were included in the study. Thus, a total 123 vasahats from five talukas were selected for the study. From the

¹ Senior Research Assistant in Department of Extension Education, Dr. Punjabrao Deshmukh Krishi Vidyapeeth, Akola.

² Ex. Extension Educationist, EEI, Anand

available PAFs in each vasahat of five talukas, five per cent of PAFs were selected through proportionate random sampling technique. Thus, a total 250 PAFs were randomly selected as respondents for the present study. Data were collected with the help of a pretested structured interview schedule.

Results and Discussion

The results relating to various constraints viz., technological, information transfer, socio-economic and general at the rehabilitated place are presented as follows.

Technological Constraints

A perusal of Table 1 indicates that the important technical constraints expressed by the PAFs for their effective/full adoption of agricultural technology in order of their importance were lack of irrigation facility, inadequate crop production, less availability of FYM, lack of timely supply of seeds, dab grass (*Saccharum spontaneum*), salinity and fragmented land respectively.

Table 1 : Technological Constraints faced by the PAFs N = 250

Sl. No	Technological constraints	Number	Per cent	Rank
1	Lack of irrigation facility	200	80.00	I
2	Inadequate crop production	192	76.80	II
3	Less availability of FYM	86	34.40	III
4	Lack of supply of seeds on time	60	24.00	IV
5	Land problems			
	a) Dab grass (<i>Saccharum spontaneum</i>)	58	23.20	V
	b) Salinity	46	18.40	VI
	c) Fragmented land	39	15.60	VII

The reasons for these constraints in rehabilitated areas include limited irrigation facility available so the PAFs followed single cropping pattern, less number of animals possessed and insufficient quantity of FYM and delayed supply of seeds. To avoid the above constraints there is a need to complete the Sardar Sarovar Project as early as possible for irrigating the command areas of the project and the implementing agency should approach the state and central Governments for subsidizing FYM/fertilizers/insecticides.

Information Transfer

A critical look at Table 2 reveals that lack of knowledge on new agricultural technology and lack of technical guidance were major constraints.

Table 2: Information transfer

Sl. No	Information transfer constraints	Frequency	Per cent	Rank
1	Lack of knowledge about new agricultural technology	166	66.40	I
2	Lack of technical guidance	135	54.00	II

The plausible reasons for these constraints might be that more than half of the PAFs were illiterate, had no farming experience about new crop technology and due to non agricultural graduates at the field level. This can be avoided by arranging off campus and on campus training programmes on agricultural technology and appointing agricultural graduates at the field level.

Socio-economic Constraints

Table 3 clearly picturises that high cost of fertilizer and lack of finance needed were the socio-economic constraints reported by the PAFs in the order of priority for their adoption of new agricultural technology.

Table 3: Socio-economic constraints

Sl. No	Socio-economic constraints	Frequency	Per cent	Rank
1	High cost of fertilizer	158	63.20	I
2	Lack of finance needed	108	40.80	II

The above constraints might be due to low to medium level of the annual income of PAFs, due to which they do not have more money to purchase fertilizer and organic manure.

General Constraints

A glance at Table 4 further reveals that unavailability of fodder for animals, lack of proper veterinary services for treatment of animals, lack of

vaccination against diseases and non availability of safe and potable drinking water were the general constraints expressed by the PAFs in order of priority for the adjustment at the rehabilitated place.

Table 4: General Constraints

Sl. No	General constraints	Frequency	Per cent	Rank
1	Unavailability of fodder for animals	158	63.20	I
2	Lack of proper veterinary services for treatment of animals	108	40.80	II
3	Lack of vaccination against diseases	102	40.80	III
4	Non availability of safe and potable drinking water	56	22.40	IV

Suggestions Expressed by the PAFs to Overcome Constraints

An attempt was also made in this study to know the suggestions of the PAFs to overcome the constraints. The PAFs were asked to suggest possible solutions to overcome the constraints associated with adoption of modern agricultural technology at rehabilitated places. The data in this regard are presented in Table 5.

The data presented in Table 5 reveals that the suggestions of highest priority made by the PAFs for favourable attitude towards rehabilitated place, full adoption of new agricultural technology and satisfaction at rehabilitated place were provision of irrigation facilities followed by availability of cheap and timely fodder for livestock and vaccination and other veterinary services for animals in centres.

Over half of the PAFs expressed their suggestions to overcome the constraints which included conducting more training programme on new agricultural technology, provision of subsidy on FYM/ fertilizer/ insecticides, job oriented education and adult education, technical guidance through agricultural extension officers, insurance facilities for cattle and crops and soil testing.

Table 5: Suggestions expressed by the PAFs to overcome constraints
N = 250

Sl. No	Suggestions	Frequency	Per cent	Rank
1	Provision of irrigation facilities	200	80.00	I
2	Cheap and timely fodder should be made available for livestock	183	73.20	II
3	Vaccination and other veterinary services should be made available for animals in centres	179	71.60	III
4	Training programme for new agricultural technology should be arranged	170	68.00	IV
5	Provision of more subsidy on FYM/fertilizers/ insecticides	166	66.40	V
6	Job oriented & adult education should be encouraged	158	63.20	VI
7	Provision of technical guidance	145	58.00	VII
8	Insurance facilities for cattle and crops	142	56.80	VIII
9	Soil testing should be carried out	128	51.20	IX
10	Religious facility should be developed like construction of temple in centre	120	48.00	X
11	Land problems should be solved	104	41.60	XI
12	Safe and potable drinking water should be provided	87	34.80	XII
13	On time supply of seeds	60	24.00	XIII

The other suggestions of low priority were developing religious facility like construction of temple in the centre, solving land problems like dab grass, salinity and fragmented land, safe and potable drinking water and timely supply of seeds by implementing agency in order of their importance. The implementing agency and central and state governments as far as possible should try to implement the suggestions given by the PAFs.

Conclusion

It can be concluded that the identified major constraints of PAFs at the rehabilitated place in adoption of new agricultural technology such as lack of irrigation facilities, lack of knowledge about new agricultural technology, high cost of fertilizer and unavailability of fodder for animals need to be resolved by the implementing agency through the restructuring of their policy and programmes. Major suggestions were on making available irrigation facilities, more off and on campus training programmes on new agricultural technology, more subsidy to purchase FYM/fertilizer/insecticides and timely availability of fodder.

Reference

Anonymous (1999). Sardar Sarovar Project on River Narmada: Meeting the Challenges of Development. Published by SSNNL, Gandhinagar, Gujarat.