

# CONSTRAINTS IN ADOPTION OF TECHNOLOGY FOR WATERSHED MANAGEMENT

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## INTRODUCTION

Soil, water and vegetation are the vital resources for agriculture. Agricultural productivity depends on how efficiently these resources are conserved and managed on agricultural land. Today, conservation of rapidly degrading soil and water by way of watershed management is of pivotal importance. Considering the importance of rain fed farming in national economy, National Watershed Development Programme for Rainfed Areas (NWDPA) was launched by Government of India in July, 1986 with a view to enhance the production efficiency of dry land/rain fed areas.

Gujarat is predominantly the state for dry land agriculture as 77 per cent of its

cultivable area is rainfed. Under such situation, not only that a set of excellent technologies of watershed management in dry land areas are vital to be informed to the farmers, but also that they should accept these technologies intensely. The beneficial technologies of watershed management in dry land areas didn't show much acceptance at farmers' level. This means that the technologies might have some constraints at the level of adoption. In view of this, the present study was undertaken to identify the constraints faced by the beneficiaries of watershed programme in adoption of technologies of watershed management and seek their suggestions to conquer the constraints.

**Table 1: Distribution of beneficiaries according to constraints faced in adoption of Watershed Management Technology**  
N=217

Sr. No.	Constraints	Frequency	Per cent	Rank
<b>(A) Soil and water conservation technology</b>				
1	Construction of field bunds, farm pond and leveling of land are costly	172	79.26	I
2	Fragmentation of land in to unconventional shape and size	120	55.30	V
3	Land wasted in bunds and channels	137	63.13	IV
4	Lack of technical guidance	160	73.73	III
5	Lack of finance	162	74.65	II
6	Lack of knowledge about utility of soil and water conservation	85	39.17	VII
7	Lack of co-operation of neighboring farmers	100	48.10	VI
<b>(B) Crop production technology</b>				
1	Lack of knowledge about recommended technology	140	65.52	IV
2	Lack of technical guidance	170	78.34	I
3	High cost of farm inputs	145	66.82	III
4	Lack of conviction	90	41.48	VI
5	Lack of finance to purchase inputs	165	75.03	II
6	Low market price of agricultural products	125	57.60	V
7	Risk in adoption of new technology	60	27.65	VII

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**Table 2: Suggestions offered by the beneficiary farmers to overcome the constraints faced in adoption of watershed management technology N=217**

Sr.No.	Suggestions	Frequency	Per cent	Rank
1.	Farmers should be protected by crop insurance in case of failure of season	180	82.95	I
2.	Organization of need base field demonstrations	152	70.00	VI
3.	Financial limit should be increased on soil and water conservation works	130	59.90	VIII
4.	More subsidies should be granted for soil and water conservation works	158	72.80	IV
5.	More training programs should be imparted on watershed management	160	73.73	III
6.	Proper technical guidance should be given to the farmers as and when needed	170	78.34	II
7.	Extension system should be streamlined to disseminate watershed technology	154	70.96	V
8.	Farm inputs should be provided on subsidized rate to marginal and small farmers	90.00	41.48	IX
9.	Timely and ample supply of quality farm inputs	75	34.56	X
10	Remunerative market prices of agricultural products should be provided to the farmers	150	69.12	VII

## METHODOLOGY

The study was conducted in Kapadwanj and Balashinor watershed areas of Kheda district, of Gujarat state, where NWDPR was implemented. All the 10 villages covered under watershed were included in the study. The 10 per cent of the total population of the beneficiaries from each village were randomly selected as respondents.

Thus, a random sample of 217 beneficiaries was selected. The data were collected through structured schedule by personal interview method. Constraints were measured in terms of percentages.

## RESULTS AND DISCUSSION

### CONSTRAINTS

The data presented in the Table-1 indicated that in adoption of soil and water conservation measures 'high cost on construction of field bunds, farm pond and leveling of land', 'lack of finance', 'lack of technical guidance' and 'land wasted in bunds and channels' (79.26, 74.65, 73.73 and 63.13 per cent respectively) were the

major constraints, as expressed by the respondents.

In case of adoption of crop production technologies, majority of the beneficiaries reported that 'lack of technical guidance', 'lack of finance to purchase farm inputs', 'high cost of farm inputs' and 'lack of knowledge about recommended technology' (78.34, 75.03, 66.82 and 65.62 per cent, respectively) were the main constraints.

### SUGGESTIONS

To overcome these constraints, the respondents were asked to submit their suggestions. It can be seen from the Table-2 that, majority of the beneficiary farmers indicated constructive suggestions to overcome the constraints. The important suggestions included 'farmers should be protected by crop insurance in case of failure of crop season' (82.95 per cent), 'technical guidance should given to the farmers as and when they need' (78.34 per cent), and 'more training programs should be imparted on watershed management ( 73.73 per cent ).

**CONCLUSION**

The major constraints faced by the beneficiary farmers in watershed area were high cost on soil and water conservation works, lack of finance, lack of lack of technical guidance, high cost of farm inputs and lack of knowledge about recommended watershed management technology.

The major suggestions included need to provide training and technical knowledge about watershed management technology to the farmers and also adequate financial assistance to purchase farm inputs.

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