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# Constraints faced by the farmers in adoption of soil and water conservation practices in watershed development project area

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#### Abstract

The present study was conducted mainly with the objective to study "Constraints faced by the farmers in adoption of soil and water conservation practices by farmers in watershed development project area" for the study Beed district was selected randomly. Multistage random sampling technique was used for selecting one watershed area, villages and respondents. The study was conducted at Bindusara watershed area in Beed district of Marathwada region (M.S.) randomly. From five selected villages, 20 farmers from each village were selected randomly to comprise a sample of 100 respondents for the study. It was noticed from study that majority of the respondents were adopted soil and water conservation practices like preparation of small ridges across the slope, graded bunds, tillage practices parallel to contour line on area having uneven slope, intercropping like Cotton + Green gram/Black gram/Soybean (1:1), Jowar + Pigeon pea (4:2), Soybean + Pigeon pea (4:2), Bajra + Pigeon pea (3:3), Rabi Jowar + Safflower (6:3), vegetative bunds of Subabhul, staggered contour trenches, ridges & furrows at distance of 50-60cm, farm pond, Jowar, Bajra, Green gram, Black gram, Soybean (After 4-6 lines) and farm pond. It is concluded that the most of the farmers reported the cost was the main constraint followed by more time required, lack of skill, non availability of timely and adequate technical guidance, unavailability of inputs material/labour, difficulty in cultivation, lack of guidance by extension person, difficulty in maintenance and lack of information about practices, respectively.

Keywords: Constrains, independent variables

#### Introduction

The aim of watershed development is the conservation of soil moisture by reducing each of the losses (runoff, evaporation and groundwater) from the soil storage system and to make available the moisture thus conserved to plants to maximize biomass production. The number of rainy days does not average more than 40-50 days in most parts of the country. The real challenge is to find ways of using this water as and where it falls. For years, our planners have allowed the rain, which falls in every village of our country to flow out into the rivers as the runoff and then worked to bring this water back to the villages by building large and expensive dams and canal networks. The aim of watershed development is to precisely reverse this process. The aim is to store and conserve water where it falls.

Watershed development tries to reduce the volume and the velocity of runoff through a series of interventions. Generally when the rain falls on ground surface the beating action of the raindrops tends to close the pores and pore water suctions decrease as the pores fill up. Water flowing on the surface also performs an assorting action, joining the finer particles around the larger ones to form a relatively impervious seal. Finally, we reach a point where the intensity of rainfall becomes greater than the infiltration capacity of the soil. At this point surface runoff is said to have started and this water no longer remains available for use within the area. Hence with a view to understand the constraints faced by the farmers in adoption of soil and water conservation practices in watershed development project area the present study was undertaken.

#### Objective

To study the constraints faced by the farmers in adoption of soil and water conservation practices in watershed development project area

### Methodology

The present study was carried out in Bindusara is a medium watershed development project designed by Government of Maharashtra. Bindusara watershed having storage capacity about 7.106 cubic mm and operational area about 1288 ha. This project operated in Beed district and covered nearby villages under irrigation. For the purpose of the study, five villages were randomly selected from Bindusara watershed area namely, Pali, Karjani (Mothi), Karchundi, Karjani (Chhoti) and Kolwadi. From these five selected villages, 20 farmers from each village were selected randomly to comprise a sample of 100 respondents for the study. Ex-post facto research design with one shot case study method will be

adopted for the study.

The data and constraints were collected with the help of predesigned interview schedule by approaching the farmers for personal interviews with a view to developed rapport with them in order to get more reliable information. On an average the interview of single farmer lasted for about half an hour. The interview schedules were filled in and checked on the same day.

## Research Findings and Discussion Constraints faced by the farmers in adoption of soil and water conservation practices

Table 1	1:	Constraints	experienced	by	the	farmers	in a	doption	of so	oil and	water	conservation	practices
			1	-									1

			n = 100
Constraints	Frequency	Percentage	Rank
1. Cost	99	99.00	Ι
2. More time required	91	91.00	II
3. Non availability of timely and adequate technical guidance	85	85.00	IV
4. Lack of skill	86	86.00	III
5. Unavailability of inputs material/labour	81	81.00	V
6. Lack of information about practices	33	33.00	IX
7. Difficulty in cultivation	67	67.00	VI
8. Difficulty in maintenance	45	45.00	VIII
9. Lack of guidance by extension person	53	53.00	VII

Table 1 highlights that the most of the farmers (99.00 percent) reported that the cost was the main problem followed by more time required 91.00 percent, lack of skill 86.00 percent, non availability of timely and adequate technical guidance 85.00 percent, Unavailability of inputs material/labourers 81.00 percent, difficulty in cultivation 67.00 percent, lack of guidance by extension person 53.00 percent, difficulty in maintenance 45.00 percent and lack of information about practices 33.00 percent, respectively.

# Conclusion

It is concluded that the most of the farmers reported the cost was the main constraint followed by more time required, lack of skill, non availability of timely and adequate technical guidance, unavailability of inputs material/labour, difficulty in cultivation, lack of guidance by extension person, difficulty in maintenance and lack of information about practices, respectively.

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