

Impact of Canal Irrigation on Scheduled Caste Farmers

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Introduction

The present era is an era of scientific development. Irrigation potential plays an important role in the development of the agriculture. Further, the canal irrigation is cheaper option of irrigation; which necessitate for extending canal irrigation facilities to as many farmers as possible.

The canal irrigation brings many changes in cultivation practice, cropping sequence and also in level of productivity and its consequent effects. The facilities created by such a system have an impact the life style of all in the command areas. Since independence, huge funds have been diverted by the Government through providing necessary resources with a view to uplifting the living slandered of backward class and thereby to bring them in to national main stream.

The irrigation facilities created under canal irrigation system may also have good impact on the scheduled caste farmers. Considering the above facts, the present investigation was taken up to examine the impact of canal irrigation on scheduled caste farmers.

Methodology

The study was conducted in Khambhat Taluka of Anand district of Gujarat state. A random sample 60 scheduled

caste farmers from six villages of Mahi command area and 60 scheduled caste farmers from six villages not covered under Mahi command area (as control villages) were selected for the study. Thus, the sample for the study consists of a total of 120 scheduled caste farmers.

For the measurement of various variables scales developed by different social scientists were used. The data were collected by personal interview and then classified and analyzed. The calculated 't' value was used to find out differences between selected variables of irrigated and non irrigated farmers.

Results and Discussion

The inferences were drawn for impact on personal, social communication, economic as well as psychological aspects of scheduled caste farmers. The results are discussed hereafter.

(A) Impact of canal irrigation on personal variables

The data in Table 1 indicate that there was no difference between the farmers from canal irrigated village and from the villages where there is no facility for canal irrigation. This might be due to the fact that the farmers of irrigated area might have not understood the importance of the education. It is also

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Table 1: Status of farmers of canal irrigated and un-irrigated villages for selected independent variables

Sr. No.	Independent Variables	Status of farmers (mean value)		't' value
		Un-irrigated village	Irrigated village	
I	Personal Variables			
1	Education	1.37	1.55	0.9925
II	Social Communication Variables			
2	Social Participation	1.15	1.90	2.2462 *
3	Mass Media Exposure	13.15	15.30	1.9430
III	Economic Variables			
4	Size of Land Holding	4.80	5.05	0.2906
5	Occupation	2.40	2.52	1.2391
6	Cropping Intensity	134.58	209.45	12.9620 *
7	Production	775.08	2508.43	43.4685 *
IV	Psychological Variables			
8	Level of Aspiration	3.80	4.32	2.2750 *
9	Educational Aspiration for son	13.62	14.22	1.3138
10	Risk Orientation	29.52	31.09	2.2402 *
11	Attitude towards Modern Agriculture	16.48	19.28	4.3612 *
12	Overall Modernization	22.58	23.25	0.9777
13	Knowledge of wheat cultivation	29.42	41.84	6.9220 *
14	Adoption of Modern Wheat Cultivation	53.19	62.74	1.6775

possible due to the belief to be educated only for getting job and the fact is that the opportunities of getting job even after higher education is very meager.

(B) Impact of canal irrigation on social and communication variables

The result in the table indicates that significant role of canal irrigation was observed for social participation of the scheduled caste farmers. It is understood that in irrigation farming, inputs like fertilizer, pesticides, chemicals, implements, etc. are in high requirement. While purchasing these, scheduled caste farmers of canal irrigated area might have come in contact with the supply agencies and their social participation have been increased. Though, there was no significant impact was observed on mass media exposure of the scheduled caste farmers.

(C) Impact of canal irrigation on economic variables

It can be seen from the table that significant impact was observed on economic variable like cropping intensity and crop production. It is quite natural that farmers getting canal irrigation facility will have more possibility of getting more income due to high cropping intensity and high productivity of the crops. Thus, economic level of farmers with higher income will build up.

(D) Impact of canal irrigation on psychological variables

The result shows that canal irrigation played important role in improving some of the psychological variables of scheduled caste farmers like level of aspiration, risk orientation, attitude towards modern agricultural practices and knowledge of wheat crop.

Table 2: Sociological, technological and economic changes in the farmers of canal irrigated areas

Sr. No.	Indicators of Change	Status of farmers (mean value)		't' value
		Un-irrigated village	Irrigated village	
1	Modern Technology	6.08	6.72	0.2639
2	House Hold Items	14.33	17.18	3.2632 *
3	Savings and Investments	1.57	2.87	5.0817 *
4	Food Habit	8.13	8.70	3.8290 *
5	Clothing	2.79	3.77	5.7119 *
6	Housing	2.97	3.40	2.4112 *
7	Social Status	4.18	4.73	2.1360 *
8	Social Relationship	5.23	5.40	1.1596
9	Self Sufficiency	3.53	3.87	4.0595 *

Thus, the canal irrigation facilities which in turned raised the economic health of the farmers had positive impact on psychological variables of the farmers. Though, it did not have any significant impact on the variable like overall modernization may be due to the fact that both the two groups had similar higher level of modernization.

(E) Indicators of Sociological, technological and economic changes

In addition to different variables, some indicators of Socio-techno-economic change were also investigated. It is obvious from the data in table-2 that some of these indicators have shown significant difference. These included possession of house hold items, pattern of saving and investment, food habit, clothing, housing, social status as well as self sufficiency.

Thus, it could be concluded that socio-techno-economic condition of the scheduled caste farmers were significantly improved as a result of the impact of canal irrigation.

Conclusion

The results of this study clearly indicated that scheduled caste farmers of canal irrigated area were significantly better in some of the variables than the farmers of un-irrigated area. These variables included social participation, cropping intensity, crop production, house hold items, saving and investment, food habit, clothing habit, housing facility, social status, independency, overall socio-techno-economic changes, aspiration, risk orientation, attitude towards modern agricultural practices and knowledge of wheat crop.

From the above discussion it can be concluded that canal irrigation facility brings important changes in scheduled caste farmers. Government should give priority to canal irrigation projects so that necessary conducive situation can be created in rural area for the all round development of all classes of farmers including scheduled caste farmers.