



ISSN (E): 2277-7695
ISSN (P): 2349-8242
NAAS Rating: 5.23
TPI 2022; 11(12): 1526-1528
© 2022 TPI
www.thepharmajournal.com
Received: 10-09-2022
Accepted: 14-10-2022

Neeta Deokate

Department of Extension
Education, Dr. Panjabrao
Deshmukh Krishi Vidyapeeth,
Akola, Maharashtra, India

AV Khandre

Department of Extension
Education, Dr. Panjabrao
Deshmukh Krishi Vidyapeeth,
Akola, Maharashtra, India

AR Wahekar

Department of Extension
Education, Dr. Panjabrao
Deshmukh Krishi Vidyapeeth,
Akola, Maharashtra, India

B Saxena

College of Agriculture and
Research Station, IGKV,
Raipur, Chhattisgarh, India

Corresponding Author:

Neeta Deokate

Department of Extension
Education, Dr. Panjabrao
Deshmukh Krishi Vidyapeeth,
Akola, Maharashtra, India

Constraints faced by beneficiaries of wan irrigation project in agriculture and socio-economic development

Neeta Deokate, AV Khandre, AR Wahekar and B Saxena

Abstract

The study entitled “Impact of Wan irrigation project on agriculture and socio-economic development of beneficiary farmers” was frame and conducted in Akola and Buldhana district of Maharashtra State at Wan irrigation project. Wan irrigation project is one of the major irrigation project in Vidarbha sanctioned by Government of Maharashtra in the year 1979 and completed in the year 2001-02. It was started functioning from 2005. It is therefore, in order to know the benefits from this irrigation to the beneficiary farmers. In the study, the total of 300 respondents were the beneficiaries of head, middle and tail reach of wan irrigation project. The major constraints expressed by the majority of the beneficiary farmers in head, middle and tail reach portion were crop damaged due to excess flow of water (65.00%), increase in salinity of soil due to continuous leakage of water in field (50.00%), no proper maintenance of major and minor distributaries and canal water not reach at the tail portion.

Keywords: Constraints, beneficiaries, suggestions, project, distributaries

Introduction

At independence, in 1947, there were fewer than 300 large dams in India. By the year 2000 the number had grown to over 4000, more than half of them built between 1971 and 1989. India ranks third in the world in dam building, after US and China. While some of these dams were built primarily for flood control, water supply and hydroelectric power generation. But, the primary purpose of most Indian dams (96.00%) remains irrigation. In fact, large dam construction has been the main form of investment in irrigation undertaken by the Indian government. But, starting in the 1980s, public investment in large dams in India has been the subject of a sustained controversy epitomized by the Sardar Sarovar Project centering on the balance between the social, environmental and economic costs of dams and their benefits. This essay analyzes the economic impact of large irrigation dams in India, focusing on both their aggregate productivity effects and their distributional effects.

Growing population and rising levels of economic activities increase human demand for water and related services. In the past, large dams have often been seen as an effective way of meeting water and energy needs. However, a global review recently carried out by the World Commission on Dams has emphasized the wide range of problems associated with dams, making it more difficult to finance large dams.

Most irrigation dams in India are embankment dams. They consist of a wall built across a river valley to impound water so as to form a reservoir upstream and a system of spillways and gates to bypass the wall so as to maintain normal river flow and convey water to a network of canals feeding irrigated regions downstream. The upstream areas that feed the dam and those submerged by its reservoir make up its “catchment” area, and the downstream areas fed by its irrigation canals make up its “command” area. Before any mitigating effects of resettlement and compensation, whether a household stands to gain or lose depends on its location relative to the placement of the dam. People living in the catchment area, who lose property and livelihood but gain little, if anything from irrigation, tends to lose out, while people living in the command area, who bear little of the social cost but gain the most from irrigation. In between 1951 and 2000, India’s production of food grains increased fourfold, from 51 million tonnes to about 200 million tonnes. This not only obviated the importation of food grains but also saving in foreign exchange. Areas irrigated by dams constituted 35.00 percent of irrigated land in India. The most optimistic estimates attribute 25.00 percent of the increase in food grain production to dam irrigated areas.

Methodology

The study was undertaken in two districts of Western Vidarbha of Maharashtra viz. Akola and Buldhana by conducting field survey with ex-post facto design of social research. In this study, the respondents were the beneficiaries of wan irrigation project. In the present study, the command area of wan irrigation project was divided into three segments as head reach, middle reach and tail reach. From each segment five villages were selected on the basis of beneficiary farmers. From each village 20 beneficiary farmers were selected as respondents.

In all, 300 beneficiaries of wan irrigation project constituted the sample respondent of study. Beneficiaries were selected with the help of proportionate method of random sampling, which covered 15 villages of two districts of Western Vidarbha.

Results and Discussion

Constraints experienced by the beneficiaries of wan irrigation project

Command area of wan irrigation project was divided into three segments for the purpose of the study as head reach, middle reach and tail reach. The various types of difficulties faced by beneficiaries from these segments of wan irrigation project were collected and represented in Table 1.

Table 1: Constraints experienced by the beneficiaries of wan irrigation project

| Sl. No. | Constraints | Beneficiaries | |
|------------------------|---|----------------|------------|
| | | Frequency | Percentage |
| A. Head reach | | (N=100) | |
| 1 | Crop damage due to excess flow of water | 65.00 | 65.00 |
| 2 | Increase in salinity of soil due to continuous leakage of water in field through major and minor distributaries | 50.00 | 50.00 |
| 3 | No timely cleaning of canal | 45.00 | 45.00 |
| 4 | Improper gate to canal | 35.00 | 35.00 |
| 5 | Conflict among the beneficiary farmers | 30.00 | 30.00 |
| B. Middle reach | | (N=100) | |
| 1 | Irrigation water was not supplied in summer season | 60.00 | 60.00 |
| 2 | No proper maintenance of major and minor distributaries | 65.00 | 65.00 |
| C. Tail reach | | (N=100) | |
| 1. | Procedural delay in releasing water | 52.00 | 52.00 |
| 2. | Canal water not reached at the tail portion | 75.00 | 75.00 |
| 3. | More flow of water in head and middle reach | 55.00 | 55.00 |
| 4. | Illegal use of water from distributaries | 45.00 | 45.00 |
| 5 | Lack of co-operation from water distribution society to solve problems regarding irrigation | 50.00 | 50.00 |
| 6 | Poor accessibility of information and market | 35.00 | 35.00 |
| 7. | Canal sedimentation | 40.00 | 40.00 |

A critical look at Table 1 reveals that, varieties of difficulties were experienced by the beneficiaries. The data presented in above Table observed that in head reach majority (65.00%) of the beneficiary farmers expressed the constraints of crops damage due to excess flow of water in head region, it was followed by increase in salinity of soil due to continuous leakage of water in the field through major and minor

distributaries (50.00%). No timely cleaning of canal (45.00%), improper gate to canal (35.00%) and conflicts among the beneficiary farmers during distribution of water (30.00%)

In the case of middle reach, major constraints were no proper maintenance of major and minor distributaries (65.00%) and irrigation water was not supplied in summer season (60.00%). More difficulties were faced by beneficiaries of tail reach region. In tail reach major constraint expressed by beneficiaries were canal water not reached at the tail portion (75.00%), followed by more flow of water in head and middle reach (55.00%), procedural delay in releasing water in tail reach (52.00%), lack of co-operation from water distribution society to solve problems regarding irrigation (50.00%), illegal use of water from distributaries (45.00%), followed by canal sedimentation (40.00%) and poor accessibility of information and market expressed by 35.00 percent respondents.

In summing up the constraints analysis revealed that, more constrains were faced by beneficiaries of tail reach region as compared to head reach and middle reach.

Suggestions of beneficiaries of wan irrigation project

Over the constraints, beneficiary farmers from head, middle and tail reach has given the suggestions to overcome them and presented in Table 2. It is found that 80.00 percent of the beneficiary farmer suggested equal distribution of water in all three region, 65.00 percent suggested proper maintenance of major and minor distributaries, 51.66 percent suggested appoint one person from respective village for regular cleaning of major and minor distributaries, 45.00 percent beneficiary suggested regularly attend the water distribution society meetings by beneficiary farmers, 40.00 percent suggested regular cleaning of canal and 38.33 percent beneficiary farmers suggested timely supply of irrigation water.

Table 2: Suggestions of beneficiaries of wan irrigation project

| SL. No. | Suggestions | Beneficiaries (N=300) | |
|---------|---|-----------------------|------------|
| | | Frequency | Percentage |
| 1. | Timely supply of irrigation water | 115 | 38.33 |
| 2. | Maintenance of major and minor distributaries | 195 | 65.00 |
| 3. | Regular cleaning of canal | 120 | 40.00 |
| 4. | Regularly attend the water distribution society meetings by beneficiary farmers | 135 | 45.00 |
| 5. | Appoint one person from respective village for regular cleaning of major and minor distributaries | 155 | 51.66 |
| 6. | Equal distribution of water in all three regions | 240 | 80.00 |

Conclusion

In head reach, majority (65.00%) of the beneficiary farmers expressed the constraints of crops damage due to excess flow of water, 50.00 percent expressed the constraints of increase in salinity of soil due to continuous leakage of water in the field through major and minor distributaries and 45.00 percent expressed no timely cleaning of canal. In middle reach, major constraints are no proper maintenance of major and minor distributaries (65.00%) and irrigation water was not supplied in summer season (60.00%).

In tail reach, major constraint expressed by beneficiaries were canal water not reached at the tail portion (75.00%), followed by more flow of water in head and middle reach (55.00%), procedural delay in releasing water in tail reach (52.00%).

Over the constraints, beneficiary farmers from head, middle and tail reach portion has given the suggestions to overcome the constraints. The major suggestions are 80.00 percent of the beneficiary farmer suggested equal distribution of water in all three region, 65.00 percent suggested proper maintenance of major and minor distributaries, 51.66 percent suggested appoint one person from respective village for regular cleaning of major and minor distributaries, 45.00 percent beneficiary suggested regularly attend the water distribution society meetings by beneficiary farmers, 40.00 percent suggested regular cleaning of canal and 38.33 percent suggested timely supply of irrigation water.

Reference

1. Aruna Katole. Impact of SHG on socio-economic development of its women members. M.Sc. (Agri.) Thesis (UNPUB.), Dr. PDKV, Akola; c2001.
2. Aruna Katole. Impact of SHG on socio-economic development of its women members. M.Sc. (Agri.) Thesis (UNPUB.), Dr. PDKV, Akola; c2001.
3. Ashwini Shintre. Attitude of women members towards self-help group, M.Sc. (Agri.) Thesis (UNPUB.), Dr. PDKV, Akola; c2009.
4. Ashwini Shintre. Attitude of women members towards self-help group, M.Sc. (Agri.) Thesis (UNPUB.), Dr. PDKV, Akola; c2009.
5. Biradar BN. A study on impact of income generating activities on sustainable rural livelihoods of Kawada project beneficiaries. Ph.D. Thesis (UNPUB.), Univ. Agric. Sci., Dharwad; c2008.
6. Biswajit M. Assessing the impact of watershed development programmers in Bundelkhand region of Madhya Pradesh: An Institutional Perspective. Ph.D. Thesis (Unpublished). Indian Agricultural Research Institute. Delhi; c2011.
7. Borse PS. Constraints faced in adoption of IPM technology by hybrid cotton growers in Jalgaon district. Unpublished M.Sc. (Agri.) Thesis, MPKV, Rahuri; c2002.
8. Chavai AM. A comparative study of TRYSEM beneficiaries and non- beneficiaries in Kagaltaluka of Kolhapur district. M.Sc. (Agri.) Thesis (UNPUB.), Mahatma Phule Krishi Vidyapeth, Rahuri, Maharashtra; c2000.
9. Chavai AM, Nirban AJ, Nimbalkar SD. Success of TRYSEM in generating self-employment. Maharashtra J. of Ext. Edu. 2003;22(2):162-166.
10. Chawane CB Adoption of soil and rain water management practices by farmers. M.Sc. Thesis (UNPUB) Dr. PDKV Akola; c2002. p. 16.
11. Chikhale S, PS Shinde, RS Rathod. Impact of training imparted by KVK on dryland agriculture techniques: Maharashtra J. of Ext. Edu. 2002;XXI(2):57-60.
12. Chinchmalatpure UR. Sardar Sarovar Project affected farmer's attitude towards rehabilitated place and their adoption of agricultural technology. Ph.D. Thesis (Unpublished), Gujarat Agricultural University, Anand; c2001.
13. Gurav BS, Sadaphal SS, Chavai AM, Khot BB. Constraints experienced by the sugarcane growing farmer in adoption of drip irrigation system and their suggestions for enhancing the rate of adoption of drip irrigation system. Cooperative Sugar. 2003;34(8):647-649.
14. Harish BG, N Nagaraj, MG Chandrakanth, PS Srikanth, Murthy PG, Chengappa, *et al.* Impacts and implications of MGNREGA on labour supply and income generation for agriculture in Central Dry Zone of Karnataka. Agricultural Economics Research Review. 2011;24:485-494.
15. Hazarika PG. Promoting women empowerment and gender equality through the right to decent work: Implementation of NREGP in Assam state (India): A case study; c2009.
16. Ingle GS. Impact of lift irrigation project on beneficiaries, M.Sc. (Agri.) Thesis (UNPUB), Dr. PDKV, Akola; c2002.
17. Jain H. Impact of NREP on employment and income of beneficiaries in selected areas of Rewa district of Madhya Pradesh. Journal of Rural Development. 1989;8(2):195-207.
18. Jayalatha J. Impact of commercial bank schemes on the growth of entrepreneurs. Southern Economist. 2003;42:19-22.
19. Jayale PS. A study on extent of adoption and sustainability of horticultural crops advocated by horticultural department. M.Sc. (Agri.) Thesis, Marathwada Agricultural University, Parbhani; c1992.