

International Journal of Agriculture Extension and Social Development

Volume 9; Issue 4; April 2026; Page No. 122-124

Received: 11-02-2026
Accepted: 15-03-2026

Indexed Journal
Peer Reviewed Journal

An in-depth analysis of constraints and suggestions experienced by agricultural technology information centre beneficiaries in marathwada region

¹Kausadikar KD, ²Kadam RP, ³Deshmukh PR, ⁴Kapse PS and ⁵More SS

¹Assistant Professor, Department of Agricultural Extension Education, College of Agriculture, VNMKV, Parbhani, Maharashtra, India

²Head of the Department & Professor, Department of Agricultural Extension Education, College of Agriculture, VNMKV, Parbhani, Maharashtra, India

³Professor (CAS), Department of Agricultural Extension Education, College of Agriculture, VNMKV, Parbhani, Maharashtra, India

⁴Associate Professor, Department of Agricultural Extension Education, College of Agriculture, VNMKV, Parbhani, Maharashtra, India

⁵Head, Department of Agriculture Economics & Professor (CAS), College of Agriculture, VNMKV, Parbhani, Maharashtra, India

DOI: <https://www.doi.org/10.33545/26180723.2026.v9.i4b.3460>

Corresponding Author: Kausadikar KD

Abstract

The present investigation was undertaken in the Marathwada region of Maharashtra state during the years 2021–22. For the study, a sample of 180 ATIC beneficiaries was collected. The research design ex post facto were used. It was observed that, majority (91.66%) of the ATIC beneficiaries reported that non availability of seeds of new variety according to climate change and its rank I, 88.88 per cent of the ATIC beneficiaries reported that non availability of tubers, seeds and seedlings of horticultural crops and its rank II, 87.77 per cent of the ATIC beneficiaries reported that lack of proper guidance about insect, pest and disease management and its rank III, 84.44 per cent of the ATIC beneficiaries reported that expensive farm practice and less awareness about farm mechanization were the major constraints reported by ATIC beneficiaries.

It was observed from that, majority (92.77%) of the ATIC beneficiaries were suggested that timely availability of seeds & seedlings of improved varieties and different university products, tools and equipments which rank I, 88.88 per cent of the ATIC beneficiaries were suggested that should provide more number of visits, demonstrations and trainings conducted on farm level in villages which rank II, 87.22 per cent ATIC should provide mobile van facilities to diagnosis soil, water and crop pest disease analysis & Provide accurate and timely weather advisory which rank III and 84.44 per cent of the ATIC beneficiaries were suggested that should facilitate for on campus training, farmers may give to and fro fare to reach the ATIC and also give hostel facilities which rank IV.

Keywords: Beneficiaries, Diagnosis, demonstrations, advisory, tubers

Introduction

The Agricultural Technology Information Centre (ATIC) plays a pivotal role in Indian agriculture, which is recognized for its multifaceted contributions—providing employment, livelihoods, food, nutrition, and ecological security. Agriculture employs more than two-thirds of the Indian workforce, but a significant gap exists between the "information-rich" and "information-poor" communities, particularly when it comes to the latest agricultural practices and technologies. Agricultural extension education aims to bridge this gap by disseminating the latest technological advancements from agricultural colleges and research institutions to farmers. As such, the research-extension-farmers (R-E-F) linkage is an essential component of effective agricultural extension.

For Indian farmers to improve their productivity and

sustainability, it is crucial that they are well-informed and adequately trained in the management of natural resources. In this context, there is an increasing need to replace traditional agricultural practices with modern information technologies, supported by institutions such as the Agricultural Technology Information Centres (ATIC). The importance of timely and accurate information has become even more pronounced in the information age. Disseminating appropriate agricultural information is key to enhancing the quality of extension services and overcoming the limitations of previous technology transfer methods.

To address these challenges, the National Agricultural Technology Project (NATP) was initiated with financial assistance from the World Bank, under the auspices of the Indian Council of Agricultural Research (ICAR), New Delhi. The establishment of ATIC under NATP has

introduced a collaborative mechanism that extends beyond individual research institutions, thereby facilitating the efficient dissemination of agricultural knowledge. ATIC serves as a comprehensive service center, providing access to a wide array of research products and services relevant to the respective agricultural domains.

As part of this initiative, ICAR, New Delhi, sanctioned the establishment of ATIC at VNMKV Parbhani in 2001. This center was designed to provide essential diagnostic services such as soil and water testing, plant protection, and access to high-quality research products like seeds, planting materials, and processed agricultural products. These services benefit farmers not only in the Marathwada region but across the state as well. In addition to these services, ATIC also disseminates valuable agricultural knowledge through published literature and visual aids, offering opportunities for the university to develop new technologies for farmers and other stakeholders.

Materials and Methodology

The interview schedule was designed based on the objectives of the study to collect data from respondents in the Marathwada region. It was developed in consultation with the research guide, experts in the field of extension education, and by reviewing relevant literature.

In preparing the interview schedule, great care was taken to avoid biased questions and contradictory statements. The language used was kept simple to ensure clear and easy comprehension. The schedule included questions regarding various personal characteristics of the respondents that could potentially correlate with the impact of ATIC on its

beneficiaries, as well as the constraints they face. To ensure accuracy and clarity, the interview schedule was prepared in Marathi.

The study was conducted in four stages: selection of districts, talukas, villages, and respondents. Two districts, Parbhani and Hingoli, from the Marathwada region of Maharashtra, were purposively selected due to the highest number of ATIC beneficiaries among the eight districts in the region.

From each district, three talukas were selected based on the highest number of ATIC beneficiaries: Parbhani, Purna, and Manwat from Parbhani district, and Hingoli, Basmat, and Aundha from Hingoli district.

For each selected taluka, three villages were purposively chosen based on the highest number of ATIC beneficiaries, with the list provided by the Agricultural Technology Information Centre, Vasantrao Naik Marathwada Krushi Vidyapeeth, Parbhani. In total, eighteen villages were selected for the study.

From each village, ten ATIC beneficiaries were randomly selected, resulting in a total of 180 beneficiaries from the Marathwada region for the study.

Results and Discussion

The schedule included various potential constraints that could impact the effectiveness of ATIC on its beneficiaries. These constraints were carefully incorporated into the schedule, and responses were gathered from the ATIC beneficiaries. The detailed information regarding these constraints is provided in Table 1.

Table 1: Constraints faced by the ATIC beneficiaries

Sr. No.	Constraints	F	%	Rank
1)	Due to lack of subject matter specialists information is not get in time.	140	77.77	VIII
2)	Non availability of seeds of new variety according to climate change	165	91.66	I
3)	Non availability of tubers, seeds and seedlings of Horticultural crops	160	88.88	II
4)	Lack of proper guidance about insect, pest and disease management.	158	87.77	III
5)	Lack of awareness about processing, packaging and labelling of farm produce	150	83.33	V
6)	Expensive farm practice & Less awareness about farm mechanization	152	84.44	IV
7)	Number of trainings conduct by ATIC are very less as compared to number of farmers	142	78.88	VII
8)	All inputs or products of University are not available for sale in ATIC	145	80.55	VI

As observed from Table 1 the majority of ATIC beneficiaries reported several key constraints. The most significant challenge, reported by 91.66% of beneficiaries, was the non-availability of seeds of new varieties suited to climate change, which ranked first. The second major issue, reported by 88.88% of beneficiaries, was the non-availability of tubers, seeds, and seedlings for horticultural crops. Another constraint, reported by 87.77% of beneficiaries, was the lack of proper guidance on insect, pest, and disease management, which ranked third. Additionally, 84.44% of beneficiaries reported that expensive farming practices and low awareness about farm mechanization were major hurdles, ranking fourth. The lack of processing, packaging, and labeling of farm produce was also a significant issue, reported by 83.33% of beneficiaries, ranking fifth. Furthermore, 80.55% of beneficiaries stated that not all university inputs or products were available for sale at ATIC, ranking sixth. Another challenge, reported by 78.88% of beneficiaries, was the insufficient number of

training programs conducted by ATIC compared to the number of farmers, which ranked seventh. Finally, 77.77% of beneficiaries highlighted the delay in receiving information due to the lack of subject matter specialists, ranking eighth. These constraints were identified as the major challenges faced by ATIC beneficiaries.

These findings are in the line with the findings of Parhad (2011) [7], Garg *et al.* (2012) [6], Bhandari (2014) [11], Uma Prasher (2014) [8], Chapke *et al.* (2015) [5], Adsul (2016) [1], Deshmukh (2016) [3] Dhulgand (2020) [4] and Nair (2021).

Suggestions given by ATIC beneficiaries to overcome the constraints

An attempt was made to gather suggestions from ATIC beneficiaries to address the constraints they faced and to enhance their effective participation in the program. The data regarding these suggestions are presented in Table 2.

As observed from Table 2, the majority of ATIC beneficiaries provided the following suggestions: The most

common suggestion, made by 92.77% of the beneficiaries, was the timely availability of seeds and seedlings of improved varieties, along with various university products, tools, and equipment, which ranked first. The second most frequent suggestion, given by 88.88% of beneficiaries, was to increase the number of visits, demonstrations, and training sessions conducted at the farm level in villages. The third suggestion, reported by 87.22% of beneficiaries, was to provide mobile van facilities for diagnosing soil, water, and crop pest diseases, as well as to offer accurate and timely weather advisories.

In addition, 84.44% of the beneficiaries suggested facilitating on-campus training, covering travel expenses (both to and from the ATIC), and providing hostel

accommodations, which ranked fourth. The fifth suggestion, made by 80.55% of beneficiaries, was for ATIC to regularly maintain and upgrade its museum, exhibition, and audio-visual hall. Furthermore, 78.88% of beneficiaries recommended that ATIC staff be trained in technologies relevant to all crops and enterprises in the region, which ranked sixth. The seventh suggestion, made by 76.66% of beneficiaries, was for ATIC to create linkages to help farmers sell their produce directly to consumers and provide accurate, timely market information. Finally, 70.55% of the beneficiaries suggested that ATIC should announce its program calendar before the start of each season or year, which ranked eighth.

Table 2: Suggestions given by ATIC beneficiaries to overcome the constraints

Sr. No.	Suggestions	F	%	Rank
1)	Timely availability of seeds & seedlings of improved varieties and different university products, tools and equipments.	167	92.77	I
2)	Facilitate for on campus training, farmers may give to and fro fare to reach the ATIC and also give hostel facilities.	152	84.44	IV
3)	More number of visits, demonstrations and trainings was conducted on farm level in villages by ATIC.	160	88.88	II
4)	ATIC should provide mobile van facilities to diagnosis soil, water and crop pest disease analysis & Provide accurate and timely weather advisory	157	87.22	III
5)	ATIC should maintain up-gradation of museum/ exhibition and Audio-Visual hall.	145	80.55	V
6)	ATIC should help to create linkage for selling of farm produce of farmers to consumers. & Provide accurate and timely market information.	138	76.66	VII
7)	Staff should be trained on technologies pertaining to all crops and enterprises that are relevant to region	142	78.88	VI
8)	ATIC should be declare their programme of calendar before start of every season /year	127	70.55	VIII

These findings are in the line with the findings of Ramesh and Krishnakumar (2009) ^[9], Argade (2010) ^[10], Parhad (2011) ^[7], Garg *et al.* (2012) ^[6], Bhandari (2014) ^[11], Uma Prasher (2014) ^[8], Adsul (2016) ^[1], Deshmukh (2016) ^[3] Dhulgand (2020) ^[4] and Nair (2021).

Conclusion

During this study it was found that timely unavailability of seeds and seedlings of improved varieties and different university products, tools and equipments, conduct very less training programme as compared to waiting list of farmers therefore it is implied that provision of revolving funds, separate budget should be there to arrange Krushi Melava, group discussion, farmers scientists interaction programme. There is need to strengthening the ATIC with fulfilment of overall staff because it has no own recruited staff as well as good storage facilities are required at ATIC.

References

1. Adsul GB. Socio-economic impact of National Horticulture Mission on its beneficiaries in Marathwada region. Parbhani (Maharashtra): Vasantao Naik Marathwada Krishi Vidyapeeth; 2016.
2. Anonymous. Socio-economic impact of technology developed by Marathwada Krishi Vidyapeeth on farmers with respect to soybean crop. Agresco report. Parbhani (Maharashtra): Vasantao Naik Marathwada Krishi Vidyapeeth; 2013:43-56.
3. Deshmukh KU. Impact of National Watershed Development Programme on its beneficiaries in Marathwada region. Parbhani (Maharashtra): Vasantao Naik Marathwada Krishi Vidyapeeth; 2016.
4. Dhulgand VG. Socio-economic impact of Mahatma Gandhi National Rural Employment Guarantee Act on its beneficiaries in Marathwada region. Parbhani (Maharashtra): Vasantao Naik Marathwada Krishi Vidyapeeth; 2020.
5. Chapke RR, Bhagwat VR, Patil JV. Impact of national training on sorghum cultivation for value addition. Indian Journal of Extension Education. 2015;51(1-2):78-83.
6. Garg SK, Badodiya SK, Daipuriya OP, Rawat U. Impact of Swarnjayanti Gram Swarozgar Yojna on poverty alleviation in Morar block of Gwalior district. Indian Research Journal of Extension Education. 2012;1:189-191.
7. Parhad AR. Impact of Mahatma Gandhi National Rural Employment Guarantee Scheme on the beneficiaries. Rahuri (Maharashtra): Mahatma Phule Krishi Vidyapeeth; 2011.
8. Uma P. Mahatma Gandhi National Employment Guarantee Act and its impact on the beneficiaries. Asian Journal of Research in Social Sciences and Humanities. 2014;4(4):50-60.
9. Ramesh G, Krishnakumar T. National Rural Employment Guarantee Act (NREGA): fact of rural women empowerment, a study in Karimnagar district in Andhra Pradesh. Kurushetra. 2009;58(2):29-30.
10. Argade SA. Study on National Rural Employment Guarantee Scheme in Thane district of Maharashtra. Hyderabad (Andhra Pradesh): Acharya NG Ranga Agricultural University; 2010.
11. Bhandari SD. Impact of Mahatma Gandhi National Rural Employment Guarantee Act on the beneficiaries. Parbhani (Maharashtra): Vasantao Naik Marathwada Krishi Vidyapeeth; 2014.