



Agricultural Schemes in India: A Review

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Authors' contributions

This work was carried out in collaboration between both authors. Both authors read and approved the final manuscript.

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ABSTRACT

The paper aimed to provide comprehensive reviews of existing research on knowledge and awareness of agricultural schemes, impact on farmers' income and constraints faced by farmers in adopting schemes. Major well known bibliometric source of information were searched. The presents reviews and information were collected from research papers, magazines, newspapers, websites etc. The Kisan Credit Card is the most popular scheme and farmers utilized advantage of this scheme to meet their cash requirement for buying agricultural inputs. The farmers are also getting benefits from the Soil Health Card scheme for improvement in soil health. The considerable number of the farmers aware about the scheme but still there is needed to be aware majority of farmers. The agricultural schemes helps in increasing beneficiaries farmers income compare than non-beneficiaries farmers. The comprehensive reviews of different literatures seek to find and discuss awareness about agricultural schemes, impact on farmers income of the schemes and constraints in adoption the schemes.

Keywords: Agricultural scheme; farmers; awareness; benefits; constraints.

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1. INTRODUCTION

Agricultural schemes are important for farmers because the agriculture sector provides livelihoods to the people. The agriculture sector plays an important role in the growth of the national economy. To support the agriculture sector and their growth, the government has launched many schemes for farmers. These schemes are launched to enhance the income and to improve the living standard of the farmers. The Government of India is implementing numerous agricultural schemes for the welfare of farmers to improve their income and economic conditions. Some of the few schemes are the Soil Health Card scheme, Kisan Credit Card, Paramparagat Krishi Vikas Yojana, Pradhan Mantri Krishi Sinchayee Yojana, National Agriculture Market, Pradhan Mantri Fasal Bima Yojana, National Horticulture Mission, Pradhan Mantri Kisan Samman Nidhi, Sub-Mission on Agriculture Mechanization, Pradhan Mantri Kisan Sampada Yojana, Mission for Integrated Development of Horticulture, Pradhan Mantri Krishi Sinchai Yojana, etc. Pradhan Mantri Krishi Sinchai Yojana was launched in 2015, with the motto "Har Khet Ko Pani" and "More crop per drop." This scheme helps in use, creation, recycling, and potential recycling of water under a single platform so that a comprehensive and complete assessment of the entire water cycle is taken into account and proper water planning for all sectors, like household, agriculture, and industry [1]. It improves efficiency, sustainability, equity, and resilience at the farm level, particularly in rain-fed, marginal, areas [2]. Climate change and sustainable agriculture monitoring, modeling, and networking was created with the goal of effectively disseminating climate change-related information [3].

Kisan Credit Card scheme was distributed to commercial banks, cooperative banks, and regional rural banks in 1998 for the issue of Kisan Credit Cards to farmers on the basis of their holdings [4]. Three agencies were entrusted to implement the KCC Scheme: commercial banks, cooperative banks, and regional rural banks [5]. The farmer has to bear the lowest interest rate (4 per cent) than other credit facilities [6]. National Agriculture Market Portal was launched to connect e-*mandi* in various states [7]. PM Kisan Samman Nidhi Yojana was launched to provide of Rs. 2,000 to eligible farmers in three installments. Money is directly transferred to the farmers' bank account. This scheme was launched to help farmers with their liquidity problem in buying of agricultural inputs and services [8]. The Soil Health Card scheme is

being implemented by all the state and union territory governments with the help of the department of agriculture. The Soil Health Card scheme is useful for the farmers. The Soil Health Card helps the farmers since they receive an accurate report on the soil health and are directed by the professionals on how to improve the health of the soil [9]. Bista [10] found that the eastern and northern eastern regions continue to be underperformance towards Kisan Credit Cards scheme. The flow of credit through KCC in state of Bihar had not been remarkable. Pragna et al., [11] concluded the government would have to keep the schemes public, which could work well. The roles of public sector banks are expected to be crucial in pushing the scheme, especially the country's largest bank like State Bank of India. Prabha et al., [12] concluded that the government had launched many schemes for agricultural and rural development, but these schemes did not reach the needy farmer groups at satisfactory level.

The review presented above highlights that a lot of research has been conducted to examine the role and importance of agriculture schemes, but much research has not been done to study the farmer's awareness and constraints towards government agriculture schemes. The present research is an attempt to bridge this gap.

2. METHODOLOGY

The literature reviews collected from peer-reviewed articles published in various reputed journals, research reports, books, magazines and internet sources etc. A final 47 scientific articles reviewed after sorted and selected, based on suitability of topic from year 2005-2022. This study was confined to a review published study on awareness, knowledge and impact on farmers' income after adopting agricultural scheme, and constraint faced by farmers.

3. DISCUSSION

3.1 Awareness and Knowledge

Sharma [13] concluded that middle age farmer should participate along with young farmers. Awareness among the farmers and knowledge of the complete procedure should be clearly explained by the disseminating agencies, which may influence farmers positively to participate in e-NAM. Aggregation of produce by some agency or government can help farmers come to the *Mandi* for selling through e-NAM. Farmers should

be encouraged to participate in e-NAM by giving them a demonstration by setting the minimum price in *Mandi*. Monin et al (2021) found that highest percentage change in productivity case of *Jowar* crop while least change in case of lentil crop. Majority of the farmers had knowledge about the benefits received of scheme, the crops covered under the scheme, and the helpfulness of the scheme. However, the beneficiaries did not possess any knowledge about the number of beneficiaries being selected for the farm mechanisation assistance. Singh & Hlophe [14] observed sampled farmers had 88 per cent awareness about livestock insurance in Manzini Region, Swaziland. Kalamkar et al [15] found that lack of complete knowledge about e-NAM. The bank details and *Adhaar* card number required for registration with the system. They have worries about e-NAM and the following use of their income details for income tax purposes. Some *Mandis* organised meetings with farmers and traders and distribute printed leaflets for creating awareness. Thus, there is an urgent need for a strong and time-bound approach to educate and provide training to stakeholders on various aspects of the e-NAM concept. Bhadoriya et al [16] found age was positively correlated with attitude of responded farmers towards Pradhan Mantri Fasal Bima Yojana in the study area.

3.2 Impact on Farmers' Income

Vamsi [21] revealed that the RKVY scheme had an optimistic impact on the income levels of sheep rearers, thus reducing inequality with regard to income levels as time evolved. Sheep farming with technical intervention in the form of superior inputs could reduce income inequality. Varshney et al [22] found that there was no selection partiality based on social and economically characteristics. Those who were relatively more depend on agriculture and those who are not able to access credit the scheme significantly helped them. Yadav [23] found that (43.34 per cent) of PMKSY (Pradhan Mantri Krishi Sinchayee Yojana) beneficiaries were middle age (34.17 per cent) of the PMKSY beneficiaries were educated up to high school (43.33 per cent) of the PMKSY beneficiaries had medium land holding (37.50 per cent) of the respondents had medium level of farming experience. Maximum beneficiaries (43.33 per cent) of Pradhan Mantri Krishi Sinchayee Yojana had medium level of influence, (30 per cent) and (26.67 per cent) beneficiaries under higher and lower level of impact respectively. Kavitha et al

[24] found that the beneficiary farmers compare than non- beneficiary farmers are realising a 9.07 per cent higher gross return. Disbursement of funds should be timely, before the sowing season, to ensure the efficient use of the PM-Kisan scheme and to realise maximum returns. There is a need to popularise agricultural schemes through agricultural extension service to overwhelm the farmers' myth. The PM-Kisan scheme is an innovative move by the Government towards enhances and doubling the income of the farmers. Many economists suggested that this type of support is better than farm loan waivers [25]. Tyagi and Singh [26] concluded that the availability of proper water source and technology such as drip irrigation system help in saving water and resource in efficient manner and implementation of PMKSY (Pradhan Mantri Krishi Sinchayee Yojana) assist in such type agriculture activities to enhance the income of the farmers. The farmers beneficiary under National Food Security Mission is in a better position in term of agri-input, yield and production comparison than non- National Food Security Mission beneficiary farmers [27]. The timely online payment of sale and lesser chance of collusion among traders are the important benefits of the e-NAM (Electronic National Agriculture Market) portal [28]. Krishna et al [29] observed that insured farmers under national agricultural insurance scheme invested higher on labour hired, machine and bullock labour, seeds, manures, fertilizers, agrochemicals etc. than non-adopted farmers mainly because of guaranteed compensation from the scheme. Chadha & Srivastava [30] found positive growth rates of 4.40 per cent of number of farmers covered under National Agricultural Insurance Scheme and 4.14 per cent for Weather Based Crop Insurance Scheme.

Singh [31] studied the opinions of the farmers towards the agriculture schemes run by the government of India. Few respondents were slightly and average benefitted but the majority of the farmers were not benefitted from the scheme. Chouhan et al. [9] concluded that adoption of the Soil Health Card leads to a reduce the use of Agri-inputs like labour, pesticides, seed etc. (66.7 per cent) due to an improvement in soil texture (60.0 per cent), and crop yield (55.6 per cent) respectively, which was observed by the majority of households. The credit borrowing limit is fixed basis of cropping pattern [32]. The timely and adequate credit support is aim of the Kisan Credit Card scheme. It helps to the farmers in meeting postharvest, market, consumption and

Table 1. Awareness level of the farmers towards agricultural schemes

Scheme	Findings	Author/study
Pradhan Mantri Fasal Bima Yojana and Paramparagat Krishi Vikas Yojana and e-NAM (National Agriculture Market)	Moderate level awareness and very low awareness found at Dharampur block of Solan district.	Kumar [17]
Pradhan Mantri Fasal Beema Yojana. Pradhan Mantri Krishi Sinchai Yojana	Near about 86 per cent of the farmers were aware. Performing well study conducted in in Hisar and Fatehabad district of Haryana.	Shehrawat et al [18]
Pradhan Mantri Fasal Bima Yojana	Farmers had (52.50 per cent) moderate level knowledge study conducted in Tumkur district of Karnataka.	Darshan et al [19]
Soil Health Card	Nearly 35 per cent of the farmers had neutral attitudes and 20 per cent had strongly positive attitudes.	Patel & Chauhan [20]

maintenance expenses [33]. E-NAM (Electronic National Agriculture Market) ensures transparency in transaction in digital mode and provide fair price to the farmers [23]. Cariappa [34] observed that the coverage of Pradhan Mantri Fasal Bima Yojana scheme increased by 8 per cent and area cover under has decreased by 3.72 per cent in *Kharif* 2015 and in *Kharif* 2016 in Karnataka state. The overall performance was increase about 77.20 per cent in the number of farmers insured under PMFBY scheme. The premium discounts and claim settlement mechanism would bring more improvement under crop insurance in Karnataka. The Kisan Credit Card helps in increased the net profit of Rs. 230 per hectare in case of wheat crop and Rs. 2664 per hectare in case of paddy crop [35]. Karuni et al [36] found for paddy crop credit is a positive factor increasing yield by 0.04 per cent at 0.05 per cent significant level. Result of regression coefficient of credit for cotton crop was 0.19 and for maize crop yield contribution of credit is positive and was found to be capital intensive crop.

3.3 Constraints

Due to lack of awareness among farmers Soil Health Card scheme is not directly accessible to the farmers' community [37]. Kaur et al. [38] revealed that the norms recommended for they are not followed because lack of soil testing infrastructure as well human resource. There is need of awareness campaign to reach Soil Health Card to maximum farmers. Goudapaa et al. [39] concluded that inadequacy in implementing the scheme and unawareness about the procedural to get benefit are the main hurdle in adopting scheme. Majority 46.25 per cent farmers fully utilized the credit while 17.50

per cent mis-utilized the credit for the production purpose [40]. Kaur et al [41] concluded that almost 82 per cent of the farmers felt the lack dissemination of information, 62 per cent farmers reported complications in sale process, delay in online payments and difficult online payment process were faced by 96.7 and 58 per cent of the farmers respectively. Moreover nearby 100 per cent of the traders highlighted lack dissemination of information, 80 per cent of traders reported complexity of sale process, 14.7 per cent reported the lack of trained personnel to help them with e-NAM (85.3 per cent) of traders faced delay in online payments. In addition, about (89.3 per cent) of respondent traders faced difficulties getting licences for trading, and about (86.7 per cent) of *Mandi* officials agreed on the lack of adequate infrastructure at the *Mandi* 27 per cent said that farmers are afraid to get direct payments into their accounts.

Singh and Agarwal [42] revealed the insurance illiteracy and farmers' preference for agriculture relief payments are the main reasons for limited access to agriculture insurance [43-46]. The current crop insurance schemes are unsuitably operated because of implementation issues [47-49].

4. CONCLUSION

It can be concluded that there is a need to create awareness among farmers to get maximum benefits from the agricultural scheme of the government. Training and awareness through extension services helps in achieving the schemes for the farmers. It is observed in most of the studies that few schemes are performing well and beneficiaries getting their benefits. The agricultural schemes help in

increase the yield of crops and the growth of agricultural development in the nation. Many farmers have misconceptions about the schemes, and the complex procedures of the schemes also discourage farmers for taking advantage of its benefits.

5. FUTURE SCOPE

To understand the awareness level and constraints faced by farmers towards agricultural schemes the study helps in understanding the constraints their impact on income and awareness level. The further study helps in understanding the farmers' coverage under schemes and beneficiary benefits performance of the schemes.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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