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## Commodity Market Dynamics and Farmer Well-being: Evaluating Monetary Policies and Sustainable Income Avenues

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### ABSTRACT

The implications of the Government of India's monetary policies on farmers have been a subject of intense scrutiny and debate in the past four years. This research paper focuses on the soft commodity market, specifically targeting agricultural produce. The study aims to evaluate the extent of the benefit of the new Agriculture reforms and Farm Bills and suggest alternative sources of income for the farmers of India. Secondly, this study analyzes the price of commodities (wheat, rice, cotton, mustard, pearl millet, pigeon pea) at which the farmers can sell their produce in APMCs and to what extent MSP is being followed by the traders and buyers of a farmer's produce. By exploring alternative income sources, the research paper proposes strategies to empower farmers and enhance their economic resilience. The research adopts a mixed-method approach to achieve these objectives, combining quantitative analysis of agricultural data and commodity market trends and qualitative insights gathered through questionnaires (from Punjab, Haryana, Rajasthan, Gujarat, MP, Maharashtra, UP, Bihar, Jharkhand, Telangana, Tamil Nadu), and expert perspectives. The results of this study show more exploitation than benefits brought down by the new monetary policies for the farmers and their dissatisfaction with the current MSP. The study analysis shows unfair policies against the farmers and more power to traders and big companies. This research also highlights the awareness level of different government schemes and policies among the farmers surveyed.

## KEYWORDS

Commodity Market, APMC yard, Farmer Bill, Monetary policy, Minimum Support Price, Farmer Distress, PM KISAN

## INTRODUCTION

The agriculture sector has long been the backbone of India's economy, providing sustenance to millions of farmers and their families. However, the well-being of these farmers has been a matter of concern, especially concerning the impact of government monetary policies and reforms. This research paper delves into the intricate relationship between the monetary policies of the Government of India and their implications on farmers' welfare. It also examines the effects of the New Farmer Bill and the subsequent farmer protests, along with the challenges farmers face in realizing fair prices for their produce in the Agricultural Produce Market Committee (APMC) yards.

The commodity market, where primary agricultural products are bought and sold, plays a crucial role in determining the prices that farmers receive for their crops. Yet, despite the market's significance, the recent introduction of the New Farmer Bill sparked controversy and protests among farmers. While the bill aims to liberalize agricultural markets, empower farmers, and attract private investments, some farmers express concerns about its potential implications on their income security and bargaining power.

One of the key issues that led to farmer protests against the New Farmer Bill is the Minimum Support Price (MSP) mechanism. The MSP serves as a price floor set by the government to support farmers and ensure they receive reasonable returns for their crops. However, the prevailing MSPs for different crops in the market do not always align with the increasing cost of cultivation, leading to a significant disparity between farmers' expenses and the prices they receive.

Compounding the problem, not all farmers are able to benefit from the MSP due to challenges such as lack of awareness, limited market access, and the dominance of middlemen in the supply chain. As a result, many farmers are compelled to conduct distress sales of their crops at lower prices, pushing them into financial distress and comparatively making lesser profits.

Despite the government's introduction of new technologies and agricultural advancements, the benefits of these initiatives do not always reach the grassroots level. This research paper shows that the maximum number of respondents are unaware of the government schemes. Limited access to information and regional differences prevent many farmers from fully embracing modern farming practices, thus limiting their potential for improved productivity and income.

Furthermore, subsidies introduced by the government to support farmers are often hindered by inefficient distribution channels and corrupt practices, depriving deserving farmers of the intended benefits. Additionally,

a lack of knowledge about available government schemes further exacerbates the challenges faced by farmers, leaving them with limited avenues to avail themselves of government support.

In light of these issues, this research paper aims to shed light on the complexities of government monetary policies and their impact on Indian farmers. It explores the concerns of farmers regarding the New Farmer Bill and delves into the disparity between the cost of cultivation and the prevailing MSPs. The study also examines the challenges faced by the farmers such as crop damage due to natural calamities like drought, hailstorms, frost, diseases-pests, heavy rainfall; timely availability of seed, fertilizer, and irrigation water; labor availability; market price; loan or credit facility. The paper also highlights the importance of other sources of income which can potentially increase the income level of the farmers in the current scenario. The research involves the calculation of the socio-economic status of the farmers based on the net income they are generating and estimates whether their comparative income and expenses have reduced or increased in the past 5 years. Finally, the paper tries to find out if, from the farmer's perspective, agriculture is a remunerative business.

### Farmer Bill 2020

The Indian Government introduced three agricultural reform bills in September 2020 aiming to bring significant changes to India's agricultural sector by restructuring the way agricultural produce is bought and sold, promoting contract farming, and providing farmers with greater market access. Here are the details of the three key bills:

- A) The Farmers' Produce Trade and Commerce (Promotion and Facilitation) Act, 2020: This bill permits farmers to sell their produce outside the confines of government-regulated Agricultural Produce Market Committees (APMCs) or mandis. It aims to create additional avenues for farmers to sell their crops, promoting inter-state and intra-state trade. Farmers are allowed to engage with buyers, including processors, retailers, and exporters, directly at the farm gate, in cold storage, or through electronic trading platforms. The bill prohibits state governments from imposing taxes or levies on trade outside the APMC markets.
- B) The Farmers (Empowerment and Protection) Agreement on Price Assurance and Farm Services Act, 2020: This bill facilitates contract farming by allowing farmers to enter into agreements with agribusiness firms, retailers, exporters, or processors. These agreements outline the terms and conditions for the supply of agricultural produce. The contract ensures that farmers receive a pre-determined price for their produce, providing them with price assurance and reducing the risk of price fluctuations. The bill also provides a framework for dispute resolution, protecting the interests of both parties.
- C) The Essential Commodities (Amendment) Act, 2020: This bill amends the Essential Commodities Act, 1955, which empowered the government to regulate the production, supply, and distribution of certain commodities. The amendment removes many agricultural commodities from the list of essential commodities. This means that the government can intervene in regulating the supply of these

commodities only in case of extraordinary circumstances such as war, famine, natural disasters, or extraordinary price increases.

The Bills were introduced with the intention of bringing positive reforms to India's agricultural sector but faced significant criticism and skepticism from many farmers and their associations. This lack of perceived benefits can be attributed to a range of factors. Chief among these concerns is the absence of guaranteed minimum support prices (MSPs) for agricultural produce traded through private transactions. Through the research conducted many raised concerns regarding this issue and demanded that MSP should be increased as there is a significant increase in the cost of cultivation which is not proportional to the increase in MSP. Farmers are worried that without MSP protection, they are being exposed to volatile market fluctuations and exploitation by private buyers. Small and marginalized farmers, who constitute a substantial proportion of India's farming community, fear that they lack the bargaining power needed to secure fair prices when dealing with private entities. Additionally, apprehensions exist regarding the potential dominance of private corporations in the agricultural market, potentially reducing competition and leaving farmers susceptible to prices dictated by these powerful players. The lack of clarity on critical aspects like dispute resolution mechanisms, price assurance, and the protection of farmers' interests further contributes to the perception of limited benefits. There are also concerns about the potential decline of traditional Agricultural Produce Market Committee (APMC) mandis due to provisions allowing farmers to sell outside these markets. On one hand, this provides more options, but on the other hand, it could weaken APMC mandis where government support mechanisms operate. Unequal access to technology, digital literacy, and electronic trading platforms also raise concerns about disparities in market access. The Farmer Bill 2020's perceived lack of benefits highlights the need to address these multifaceted concerns in order to ensure equitable and sustainable reforms for India's farming community.

### Key Government Schemes

This research paper seeks to delve into the levels of awareness among farmers regarding essential government schemes to understand the extent to which farmers are informed about them. These policies include the Pradhan Mantri Fasal Bima Yojana (PM-FBY), a comprehensive crop insurance scheme aimed at providing financial protection to farmers in the event of crop losses due to natural calamities such as droughts, floods, or unseasonal rains. Alongside PM-FBY, the eNational Agriculture Market (e-NAM) initiative has established an electronic trading platform that connects agricultural produce markets across the nation. It facilitates transparent price discovery and seamless trade, empowering farmers by providing access to a wider customer base and ensuring fair market prices.

Furthermore, the Pradhan Mantri Kisan Samman Nidhi (PM-KISAN) scheme plays a pivotal role in offering direct income support to small and marginal farmers, bolstering their economic security, and assisting in meeting essential agricultural expenses. Primary Agricultural Credit Societies (PACS) have emerged as critical agents of

rural financial inclusion, offering a range of financial services and credit facilities to farmers, thereby contributing to agricultural and rural economic development.

In addition to these initiatives, the Pradhan Mantri Krishi Sinchayee Yojana (PM-KMDY) focuses on enhancing water-use efficiency in agriculture. It strives to achieve sustainable irrigation practices and improve water resource utilization, factors of utmost importance for agricultural productivity and resource conservation. Against the backdrop of these policies, as well as recent legislative changes like the new Farmer Bill, our research endeavors to delve deeper, shedding light on the practical impact of these policies and the levels of awareness among the farming community. We believe that understanding these dynamics is crucial for informed policy decisions and, ultimately, for the well-being and livelihoods of the farmers themselves.

The results of this study show that not many farmers are aware of these schemes. The most know scheme is PM-KISAN. Many farmers are facing challenges due to natural calamities, climatic conditions, market price, timely availability of seeds/fertilizers, etc., and these schemes can actually help the farmers deal with such challenges if implemented properly and made aware to a large extent.

In the rich tapestry of Indian agriculture, this research embarks on a profound exploration into the lives, challenges, and aspirations of the farming community across diverse states, including Telangana, Uttar Pradesh, Rajasthan, Karnataka, Punjab, Madhya Pradesh, Tamil Nadu, Jharkhand, and Gujarat. This study seeks to provide a comprehensive understanding of the intricate dynamics that define the lives of farmers, with a keen focus on addressing four distinct but interrelated objectives. Firstly, it aims to assess the financial risks and challenges faced by farmers in commodity-based economies, with a specific lens on price volatility. This objective is anchored in the recognition that price fluctuations can have profound implications for the financial wellbeing of farmers. Secondly, it delves into the effects of recent Farmer reforms and monetary policies implemented by the Government of India. This objective is crucial in evaluating the impact of policy changes on the livelihoods of farmers, who constitute a substantial portion of India's population. The third objective revolves around the measurement of the benefits availed by farmers in APMC yards concerning the new Minimum Support Prices (MSP). This entails a detailed examination of the prevailing prices within these yards, providing insight into whether the intended benefits reach the farming community effectively. Lastly, it endeavors to propose alternative sources of income that could potentially contribute to the sustainable growth and prosperity of farmers. This objective stems from the recognition that diversifying income avenues is essential for agricultural sustainability.

Addressing a pertinent research gap, this study differs markedly from previous research in that it delves deep into the lived experiences and aspirations of farmers amidst the backdrop of recent policy changes. While existing studies often emphasize historical and policy aspects, this research adopts a unique approach. It relies on primary data collected directly from farmers across diverse regions, ensuring that the findings are firmly

rooted in ground-level realities. This approach facilitates a nuanced understanding of the multifaceted challenges and opportunities faced by farmers.

Methodologically, this research draws strength from an extensive dataset gathered from farmers belonging to different states, encompassing a wide array of demographic aspects, such as age, education level, farm size, family structure, and livestock ownership. Employing rigorous statistical methods, it aims to uncover patterns, trends, and correlations within this dataset, thereby ensuring the robustness of the findings. The integration of quantitative and qualitative insights further enriches this study, as it encapsulates the voices, aspirations, and concerns of farmers.

In essence, this research is not merely an exploration of statistics, but a testament to the resilience, dedication, and challenges faced by the backbone of our nation's economy - the farming community. The journey into the heartland of Indian agriculture seeks to offer a holistic understanding of the issues at hand, ultimately striving to contribute to informed policy decisions aimed at enhancing the well-being and livelihoods of farmers.

## LITERATURE REVIEW

1. Anwasha Borthakur, Pradeep Singh (2012) (Borthakur, 2012): The research portrays the development seen in the Indian agricultural research system in a period starting from the colonial era till 2012 (year of study). This is exploratory research. The research paper has explained the role of the Five-Year Plan related to Indian agricultural development. The result of the study shows that the development and history of agricultural research in India over time have not received much consideration.
2. Pratap S. Birthal, Digvijay S. Negi, Et al. (2014): This paper has collected household-level data from NSSO to analyze various revenue-generating activities for the farmers and their effects on income distribution. The researchers collected data from 51770 farm households covering 6638 villages in India. Methods used for the research include Gini Index, PigouDalton transfer sensitivity, symmetry, etc. The results of the study show 91% of income dependency on crop production and suggest non-farm activities to enhance the income level of the farmers.
3. Wagan Z.A., Chen Z., Seelro H., Shah M.S. (2018): The purpose of this study is to examine the impact of macroeconomic policy on employment, food inflation, and agricultural growth to examine the effectiveness of monetary policy on food price inflation and the employment implications of restrictive monetary policy. Factor-augmented vector autoregressive model has been applied to agricultural data from 1995 & 1996 to 2016 for India and Pakistan. The result of the study shows that strict monetary policies helped in reducing food inflation and increased the rural unemployment rate. In both countries, shortterm and 10-year interest rates were increased due to contractionary monetary policies followed by both countries. The study recommended policymakers work along with the government to achieve price stability.

4. Shivani Singh, Srishty Jaiswal (2021): This paper examines the Farmer Bills and the reasons for protests by the farmers that happened during the initial stage of passing these bills. The paper also studies the MSP and reasons for the suicide rate of farmers. It is a conceptual paper that describes the three farmer bills and has used secondary sources to collect information. The study suggests the need to amend the APMC Act and gives the consequences of the bills passed.

## RESEARCH GAP

Existing studies in the field of Indian agriculture have provided essential historical context and insights into various aspects of the sector. However, this research highlights the need for a more contemporary understanding of farmers' perspectives, especially in the context of recent transformative changes, such as the introduction of the new Farmer Bill. Many prior studies rely on historical or secondary data sources, providing valuable but somewhat dated information. They may not fully capture the real-time experiences, sentiments, and aspirations of farmers in light of current policy shifts.

Moreover, while some existing research discusses policy measures and potential amendments, these analyses often present external viewpoints and may not adequately reflect the nuanced perspectives and requirements of the farming community themselves. There is a noticeable gap in research that directly engages with farmers, seeking their input to bridge the gap between policy intent and on-ground realities, as perceived by those directly impacted.

In this context, this study aims to address these gaps comprehensively. It collects primary data directly from farmers to gain insight into their current experiences, challenges, and aspirations, particularly in the context of recent policy changes. Additionally, this research goes a step further by endeavoring to propose feasible alternative income options for farmers, thereby contributing practical solutions for sustainable livelihoods. Furthermore, this study seeks to assess the awareness levels among farmers regarding various government policies, including the new Farmer Bill, providing valuable insights into the dissemination and comprehension of these policies at the grassroots level. By integrating these multifaceted dimensions, this research offers a holistic understanding of the contemporary Indian agricultural landscape and holds the potential to inform farmer-centric policy decisions effectively.

## STATEMENT OF THE PROBLEM

This research paper aims to investigate the impact of government monetary policies on farmers' financial well-being, taking into account the implications of the New Farmer Bill and the ensuing farmer protests. Additionally, the study seeks to explore the market dynamics in APMC yards and actual prices received by farmers for wheat, rice, cotton, mustard, pearl millet, and pigeon pea. The research measures the profit earned by the farmers by comparing the cost of cultivation and the amount received by them in the APMC yard as well as the companies with the new Farmer Bill and changed MSP. Moreover, the research aims to propose viable and sustainable

alternative sources of income that can empower Indian farmers to enhance their livelihoods and navigate through economic uncertainties. Addressing these issues, this research paper endeavors to contribute to a comprehensive understanding of the current challenges faced by the Indian farmers and provide informed insights to guide policymakers to design effective measures to uplift the financial prospects of farmers in India.

## OBJECTIVES OF THE STUDY

1. To assess the financial risks and challenges faced by farmers in commodity-based economies, particularly in relation to price volatility.
2. To investigate and evaluate the effects of the new Farmer reforms and monetary policies implemented by the Government of India on the livelihoods of farmers.
3. To examine the price prevailing in APMC yards to measure the benefit availed by the farmers in respect of new MSP.
4. To propose alternative sources of income that could potentially contribute to the sustainable growth and prosperity of farmers in India.

## RESEARCH METHODOLOGY

This study is exploratory research that follows a mixed-method approach by using both secondary and primary sources of data. Secondary data is collected from the Department of Agriculture & Farmers Welfare, NITI Ayog, and research publications to understand the historical context, policy implementations, and agriculture trends.

Primary data has been collected in the form of questionnaires directly from 70 farmers belonging to states- UP, MP, Rajasthan, Haryana, Punjab, Tamil Nadu, Karnataka, Telangana, Bihar, Gujarat and Jharkhand. The primary data has been collected based on the non-probability convenience technique through known sources.



## ANALYSIS AND INTERPRETATION

### 1. Education Levels of Farmers and Their Implications for Monetary Policy and Sustainable Income Strategies

Education Level	Number of Respondents	Percentage
A) Uneducated	3	4.29
B) Below 9th class	12	17.14
C) 10th	10	14.29
D) Inter	24	34.29
E) Graduate	17	24.29
F) Post-graduate	4	5.71
<b>Total</b>	<b>70</b>	

The distribution of education levels among the surveyed farmers is crucial for understanding and assessing the impact of monetary policies and market dynamics on their well-being. Farmers with lower education levels, such as those below the 9th class (17.14%) and the uneducated (4.29%), may face greater challenges in understanding and adapting to government reforms and market fluctuations. Along with awareness of government policies, it becomes difficult for them to understand the measures they can take to increase the productivity and their overall income. This underscores the need for targeted educational initiatives to enhance their awareness and ability to navigate these changes effectively. On the other hand, the presence of graduates (24.29%) and postgraduates (5.71%) in the sample suggests the potential for leveraging their higher education to promote sustainable income avenues and informed decision-making. Hence, this data, with its associated percentages, emphasizes the importance of tailored educational interventions to empower farmers across various education levels, aligning with the objective of proposing alternative income sources and evaluating the effects of monetary policies on farmer livelihoods in commodity-based economies.

### 2. Landholding Size Diversity and Its Implications for Farmer Well-being and Economic Strategies

Landholding size	No. of farmers	Percentage
Marginal (0-2)	20	28.57
Medium (2-10)	40	57.14
Large (>10)	10	14.29
<b>Total</b>	<b>70</b>	<b>100</b>

The data reveals that the majority of the surveyed farmers fall into the "Medium" landholding size category (57.14%), followed by "Marginal" landholders (28.57%). A smaller proportion of farmers fall into the "Large" landholding category (14.29%). This distribution of landholding sizes is significant for assessing the financial risks and challenges faced by farmers (Objective 1) and proposing alternative sources of income (Objective 4). Marginal farmers with smaller landholdings may have limited resources and income potential, making them more vulnerable to price volatility. Medium-sized farmers may have a relatively more stable financial base, allowing them to explore diversified income avenues. Both for marginal and medium farmers, alternate income resource is necessary, as they can't entirely rely on agriculture, which might result in losses due to weather uncertainty or any other reason. Large landholders, while fewer in number, may have significant resources and potential for diversification. Understanding these categories' dynamics can guide policy measures aimed at supporting farmers of different landholding sizes and promoting sustainable income generation in commodity-based economies.

### **3. Opportunities for Livestock Rearing**

The data collected reveals a varying degree of engagement in animal husbandry among surveyed farmers. A substantial majority (61.43%) own between 1 to 5 animals, indicating the potential for expanding livestock rearing as an alternative income avenue. Approximately 14.29% of farmers have 6 to 10 animals, suggesting an opportunity to further develop their livestock holdings. Even smaller percentages own more than 10 animals, showcasing the benefits and possibilities of animal husbandry for those with the capacity. This data underscores the significance of promoting and supporting animal husbandry practices as a means of diversifying income sources for farmers, particularly those with limited landholdings, thereby enhancing their overall well-being and financial stability.

### **4. Assessing Farmer Awareness of Government Agricultural Schemes**

NAME OF SCHEME	NO. OF FARMERS	PERCENTAGE
PM-FBY	40	57.14%
E-NAM	13	18.5%
PM-KISAN	54	77.14%
PACS	5	7.14%
PM-KMDY	9	12.85%
TOTAL FARMERS	70	

The table presents data on the awareness levels of various government schemes among farmers. Among the listed government schemes, the data reveals that PM-KISAN is the most well-known scheme, with 54 farmers (77.14%) being aware of it. This high level of awareness suggests that PM-KISAN has successfully gained recognition among farmers, potentially due to its direct financial support, which is a significant incentive. PM-FBY also has a substantial level of awareness among 40 (57.14%) farmers, highlighting the importance of crop insurance. E-NAM, aimed at improving agricultural

marketing, is known by 13 farmers. It is noteworthy that PACS, a financial service provider for farmers, and PM-KMDY, a pension scheme, have lower levels of awareness among 5 and 9 farmers, respectively. The varying degrees of awareness indicate the need for increased dissemination of information and education regarding these schemes to ensure that farmers can fully benefit from them.

**5. Awareness Versus Access: Assessing the Implementation of the PM-KISAN Scheme Among Farmers**

RESPONSE	AWARENESS OF PM KISAN	PERCENTAGE	INSTALLMENT RECEIVED	PERCENTAGE
Y	54	77.14	42	60
N	16	22.86	28	40
Total	70	100	70	100

The above table presents data on the awareness and receipt of installments under the PMKISAN scheme among surveyed farmers. It is noteworthy that this scheme was widely known among the farmers (with 77% awareness). However, the data also reveals a significant gap between awareness and actual receipt of installments, as only 60% of the farmers had received monetary benefits under the scheme. This discrepancy suggests potential challenges in the implementation or accessibility of the scheme. This is one of the government’s schemes that is aimed at providing monetary benefits to the farmers. Hence, it is very much required that this scheme is made available to all farmers with a 100% guarantee, even to those who are not aware of this scheme. As the first table projected a significant proportion of farmers are uneducated or less educated, this gives a possibility of being unaware of such a scheme. Another factor may also involve the inclusion of intermediaries. It is important for schemes including monetary benefits to be provided to the farmers directly without the inclusion of any third party, in order to ensure maximum benefit to the farmers.

**6. Awareness Disparity of the New Farmel Bill 2020**

RESPONSE	AWARENESS OF NEW FARMER	
	BILL	%
Y	11	15.71
N	59	84.29
TOTAL	70	100

The above table depicts the awareness levels among farmers regarding the New Farmer Bill introduced in 2020. The data highlights a significant disparity in awareness, with only 15.71% of surveyed farmers being aware of the bill, while the vast majority, 84.29%, were not aware of its existence. This stark contrast underscores a crucial information gap among farmers, with a large segment unaware of a major policy change that could potentially impact their livelihoods.

The regional discrepancy mentioned, where awareness is higher in North India, particularly in states like Madhya Pradesh, Haryana, and Punjab, aligns with the geographical concentration of farmer protests

against the bill. This suggests that the protests might have played a role in raising awareness about the bill in those areas. It was due to this reason, that Punjab is the only state, currently with 100% guaranteed MSP for wheat and paddy. However, the lower awareness levels in southern India indicate the need for more effective dissemination of information regarding agricultural policies across the entire country. Addressing this knowledge gap is essential to ensure that farmers are well-informed and able to participate in discussions and decisions regarding policies that affect their farming practices and well-being.

### 7. Information Channels in Agriculture

INFORMATION CHANNEL	No. of farmers
Local RAEO/BDO/AO	30
KVK	24
Agriculture Department	18
SAUs	5
Radio/TV/Newspaper/Magazine	34
Others	8

The table provides valuable insights into the channels through which farmers acquire information regarding new seeds, agricultural technologies, and policies related to agriculture. The abbreviations and their full forms include "Local RAEO/BDO/AO" (Revenue Agricultural Extension Officer/Block Development Officer/Agricultural Officer), "KVK" (Krishi Vigyan Kendra), and Agriculture Department. The data indicates that the most commonly utilized channel for obtaining agricultural information is "Radio/TV/Newspaper/Magazine," with 34 farmers relying on mass media sources. This suggests the pivotal role of mass media in disseminating information to a wide farmer audience. Additionally, "Local RAEO/BDO/AO" and "KVK" are significant sources, underlining the importance of government and agricultural science centers in reaching out to farmers. However, the utilization of the "Agriculture Department." and "SAUs" appears relatively lower, indicating a potential need for improvement in the effectiveness of these government channels. Other channels include information provided by shopkeepers and company persons. Enhancing the outreach and engagement of government agencies with farmers is crucial for successful policy implementation and the adoption of modern agricultural technologies.

## 1. The Role of Farmer Unions, NGOs, and FPOs in Empowering Farmers of India

RESPONSE	PART OF FARMER UNION/NGO/FPO	%
Y	7	10
N	63	90
TOTAL	70	100

The table outlines the affiliation of farmers with farmer unions, NGOs, or Farmer Producer Organizations (FPOs). The data shows that a relatively small percentage, 10% of the surveyed farmers, are part of such organizations (belonging to states like Bihar, MP, UP, and Punjab), while the majority, 90%, are not affiliated. This data underscores the importance of farmer unions and similar organizations in India's agricultural landscape. Farmer unions and NGOs play a crucial role in advocating for the interests of farmers, raising awareness about government policies and schemes, and providing a platform for farmers to share knowledge and experiences. In a country as vast and diverse as India, where agriculture is a key livelihood, these organizations can serve as bridges between farmers and policymakers. They facilitate discussions on critical issues like the introduction of new seeds, fertilizers, and technologies, enabling farmers to make informed decisions and adapt to changing agricultural practices. Furthermore, collective action through farmer unions can potentially bring about price uniformity in the market and empower farmers to negotiate better terms with buyers and middlemen.

## 2. Analysis of Market Prices vs. MSP: Assessing Price Discrepancies

The detailed breakdown of the data reveals a complex picture of how Market Support Prices (MSP) are being followed by farmers across different states and crops. In Telangana, the majority of farmers (27 out of 27) are able to sell their crops at or above MSP, indicating relatively favorable market conditions. Conversely, in Rajasthan, there's a more mixed scenario, with MSP being followed in 23 cases but not in 16 cases, pointing to variations in market dynamics within the state. In Bihar, Haryana, and Jharkhand, the number of farmers selling at or above MSP (5 in Bihar, 15 in Haryana, and 5 in Jharkhand) is outnumbered by those who are not (7 in Bihar, 19 in Haryana, and 6 in Jharkhand), suggesting a need for greater price support or market interventions. Karnataka and Punjab show more favorable situations, with MSP being followed in all cases reported (5 in Karnataka and 5 in Punjab). In contrast, in Madhya Pradesh, Uttar Pradesh, and Tamil Nadu, a significant number of farmers face challenges in achieving MSP for their crops (5 out of 18 in MP, 2 out of 8 in UP, and 4 out of 8 in Tamil Nadu). The disparities across states underscore the importance of regional factors, including demand, supply, and government support, in determining whether farmers can access the promised MSP for their produce.



The above chart compares the average market selling prices (Market Price) that the surveyed farmers are receiving for various crops with the Minimum Support Prices (MSP) set by the government. A noticeable difference exists between the market prices and MSP for multiple crops. Specifically, for cotton, rice, pearl millet, mustard, and maize, the market prices are higher than the corresponding MSP, indicating that farmers are potentially getting better returns in the market for these crops. In contrast, for gram and wheat, the market prices are lower than the MSP, which may raise concerns about farmers not receiving the guaranteed minimum prices for these crops.

The number of crops where MSP is being followed effectively depends on how closely market prices align with MSP. In this dataset, MSP appears to be followed for five out of seven crops surveyed. However, it's crucial to note that variations in market prices can occur due to several factors, including local demand, quality of produce, and market dynamics.

RESPONSE	COTTON	RICE	PEAR MILLET	MUSTARD	GRAM	WHEAT	MAIZE
MSP IS FOLLOWED	20	13	0	17	1	30	5
MSP NOT FOLLOWED	7	17	25	20	3	9	3
TOTAL CASES	27	30	25	27	4	39	8

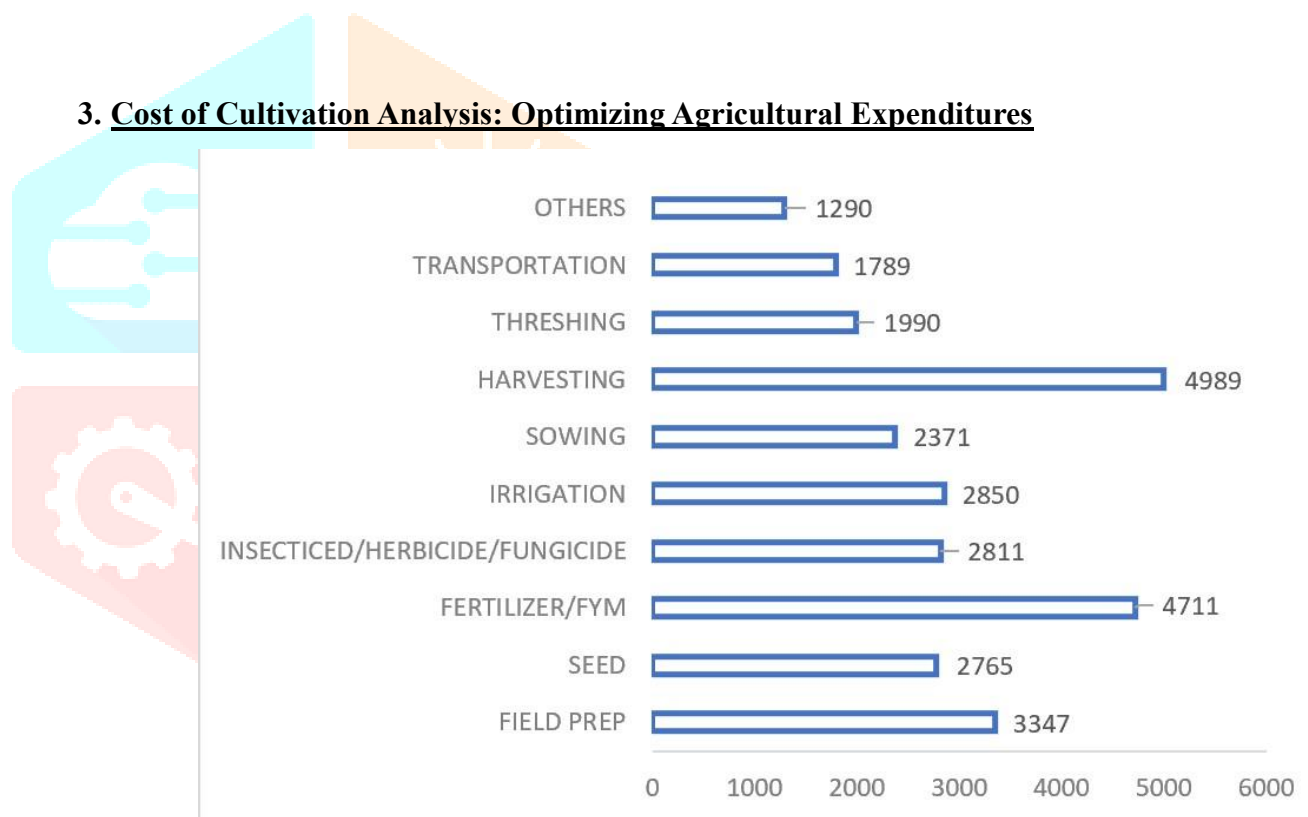
The detailed breakdown of cases where Minimum Support Prices (MSP) are being followed or not followed for various crops paints a nuanced picture of the agricultural landscape. In the case of cotton, a majority of farmers (20 out of 27) are able to sell their produce at or above the MSP, indicating relatively favorable market conditions. However, in rice, while 13 out of 30 cases report MSP adherence, 17 cases show MSP not being followed, suggesting a mixed scenario with challenges faced by many rice farmers in achieving the guaranteed minimum price.

A concerning finding emerges for pearl millet, where none of the 25 cases report MSP being followed, indicating a significant issue in the market for this crop. Mustard, with 17 out of 27 cases following MSP, reflects a balanced situation. In contrast, gram faces challenges, with MSP followed only in 1 out of 4 cases.

Wheat, on the other hand, appears relatively favorable, with MSP followed in 30 out of 39 cases. However, 9 cases report MSP not being adhered to, demonstrating some variability in wheat markets. Maize shows a mixed scenario, with MSP being followed in 5 out of 8 cases.

Overall, this detailed breakdown underscores the complexity of MSP implementation, with variations across different crops. These disparities emphasize the need for tailored interventions and policies to address crop-specific market dynamics, enhance market infrastructure, and ensure that farmers can consistently benefit from the guaranteed minimum prices set by the government.

### 3. Cost of Cultivation Analysis: Optimizing Agricultural Expenditures



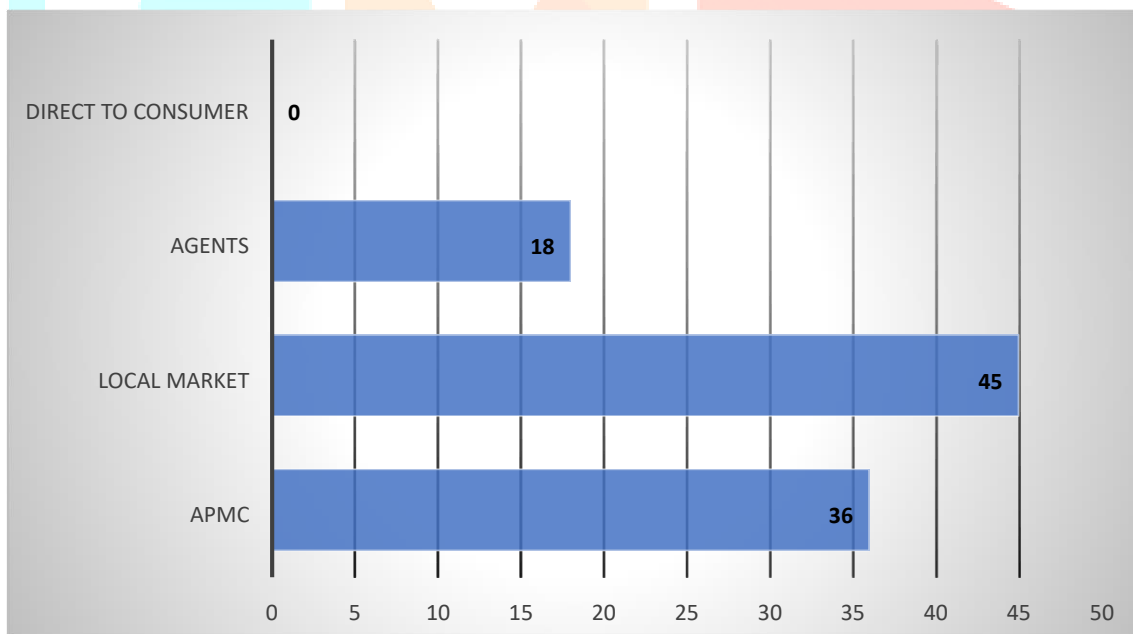
The chart provides a comprehensive breakdown of the cost of cultivation, offering insights into the various expenses incurred by farmers. Analyzing this data highlights several ways in which government agencies can support farmers in lowering their cultivation costs. Notably, the data reveals that the cost of cultivation varies across different areas, with particular expenses being higher in specific regions. For instance, the data indicates that the cost of harvesting, fertilizers/FYM, field preparation, irrigation, and seeds may be relatively higher in certain areas compared to others.

Analyzing this data highlights several ways in which government agencies can support farmers in lowering their cultivation costs. First, offering subsidies on critical inputs like seeds, fertilizers, and

pesticides can alleviate the financial burden on farmers. Price regulation for these inputs can further prevent exploitative pricing. Second, promoting efficient irrigation practices, such as drip or sprinkler systems, can reduce water consumption and its associated costs. Third, encouraging the adoption of mechanized farming can enhance productivity and reduce labor costs. Access to agricultural research and extension services is vital for farmers to stay informed about modern technologies and best practices, which can lead to increased yields and lower production costs.

Investments in transportation and storage infrastructure can minimize post-harvest losses and provide farmers with better access to markets and fair prices. Additionally, promoting crop diversification can mitigate the risk of pest and disease outbreaks, reducing the need for costly pesticides. Lastly, supporting organic farming practices can reduce the reliance on chemical inputs, contributing to cost savings and environmental sustainability. By implementing these measures and creating policies that prioritize farmers' well-being, government agencies can play a crucial role in enhancing the economic viability and sustainability of agriculture.

#### 4. Evaluating Agricultural Selling Channels: Maximizing Returns for Farmers



The graph illustrates the distribution of farmers who sell their produce through various platforms, including APMC (Agricultural Produce Market Committee), local markets, agents, and direct-to-consumer channels. The data reveals that local markets are the most commonly utilized platform by farmers, followed by APMC yards, while currently, no farmers are selling their produce directly to consumers. This preference for local markets and intermediaries can have significant implications for farmers' income and market control.



One key reason farmers often opt for local markets or intermediaries is convenience. Local markets provide a central place for selling their produce, and agents can help with logistics and finding buyers. However, selling through intermediaries often means that a portion of the profit is lost in commissions and fees, reducing the income that farmers could potentially earn. Selling directly to consumers provides better control over pricing, enabling farmers to set competitive rates and establish relationships with consumers, potentially resulting in better prices for their produce.

The New Farmer Bill aimed to create more open and competitive agricultural markets by allowing farmers to sell their produce outside of traditional APMC mandis.

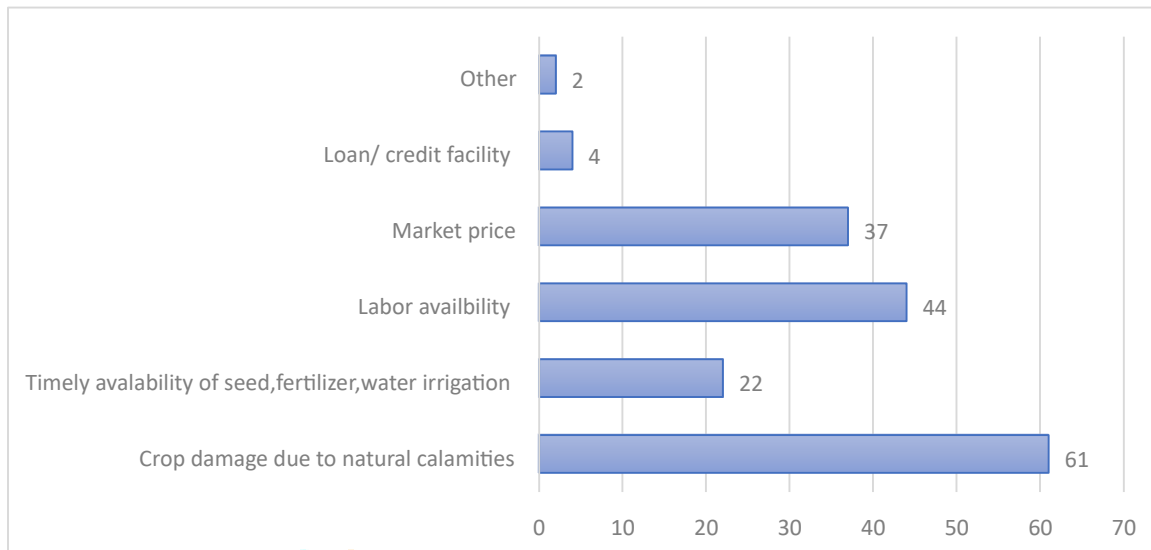
The data highlights that local markets and APMC yards remain the dominant selling platforms for farmers, indicating that many continue to rely on established market structures. This suggests that the implementation and success of the New Farmer Bill in breaking down market barriers and expanding market options may require more awareness among the farmers about the benefits they could get out of it. Currently, many farmers aren't aware of the New Farmer Bill itself, that is also a reason for them to not try out direct selling.

### **5. Assessing Alternative Avenues for Farmer Prosperity**

RESPONSE	OTHER SOURCE OF INCOME	%
Yes	46	65.71
No	24	34.29
Total	70	100

According to the data, a significant majority of surveyed farmers, approximately 65.71%, report having other sources of income, while 34.29% solely rely on farming as their primary source of livelihood. The most common additional sources of income include dairy farming, poultry farming, and labor work among the surveyed farmers. Some of them also run a shop selling related products like fertilizers, pesticides etc. The importance of having additional income sources for farmers cannot be overstated. It serves as a crucial safety net, especially during times of agricultural uncertainty, such as crop failures, price fluctuations, or natural disasters. Diversifying income streams helps reduce financial vulnerability and ensures a more stable livelihood for farming households.

### 6. Evaluating Farmers' Key Concerns and Challenges in the Agricultural Sector



The table presents a breakdown of challenges faced by farmers in various aspects of agriculture. Analyzing this data provides valuable insights into where government efforts should focus to protect the interests of farmers.

It's evident that crop damage due to natural calamities is the most prevalent and pressing concern, affecting 61 out of the surveyed farmers. This underscores the vulnerability of agriculture to climate change and extreme weather events. To protect the interests of farmers, governments should prioritize disaster management strategies, including early warning systems, crop insurance, and promoting crop diversification to mitigate the impact of such disasters.

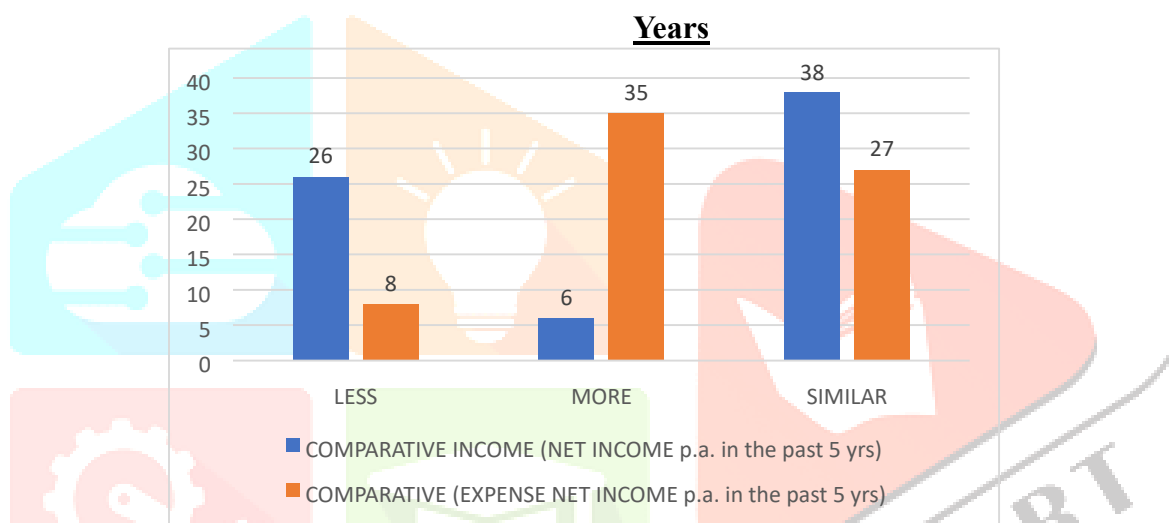
Additionally, ensuring the timely availability of essential agricultural inputs, such as seeds, fertilizers, and water for irrigation, is crucial to support farmers. Addressing issues related to supply chain management, infrastructure, and logistics can significantly alleviate this challenge. Labor availability, which affects 44 farmers in the survey, demands attention as well. Encouraging skill development and mechanization can help mitigate labor shortages and reduce dependency on manual labor, ultimately improving productivity. Market price volatility is another area where government intervention is essential. Even after introducing MSP, farmers are raising concerns related to this. Many farmers commented regarding MSP being legalized as well. The government should take the necessary steps in this regard.

### 7. A Comprehensive Analysis of Farmers' Annual Net Income

NET INCOME PER ANNUM	NO. OF FARMERS
UPTO 250000	47
250000-500000	15
500000-100000	3
MORE THAN 1000000	1

The table presents a breakdown of the net annual income of the surveyed farmers, categorized into income ranges. The data reveals that the majority of farmers fall within the lower income brackets, with 47 farmers (approximately 67%) reporting an annual income of up to 250,000. An additional 15 farmers (approximately 21%) have incomes ranging from 250,000 to 500,000, indicating a moderate income level. However, only a small number of farmers, three (approximately 4%), fall within the 500,000 to 1,000,000 income range, signifying relatively higher income levels. Remarkably, just one farmer (approximately 1%) reports an annual income exceeding 1,000,000, highlighting a significant income disparity within the surveyed group.

### 8. Analyzing Farmers' Perceptions of Income and Expense Trends Over the Past Five Years



The table presents a striking contrast in farmers' perceptions of their net income and net expenses over the past five years. The majority of farmers, comprising 38 out of 70 respondents, believe that their net income has reduced during this period, while a smaller group of only 6 farmers feel their income has increased. Conversely, when it comes to

expenses, 35 farmers perceive an increase, whereas only 8 farmers believe their expenses have decreased. Additionally, 27 farmers find their income and expenses to be relatively similar.

These perceptions shed light on the economic challenges faced by a significant proportion of farmers. The disconnect between declining income and rising expenses raises concerns about the financial sustainability of agriculture for many. In this context, government intervention becomes crucial. Strategies should encompass financial support, skill development, improved market access, crop diversification, and risk management. These measures can help alleviate the expense burden, enhance income opportunities, and improve the overall economic well-being of farmers.

Moreover, conducting a more granular analysis of income and expense patterns for individual farmers or specific regions can provide valuable insights into the underlying reasons for these trends. Whether it's fluctuating crop prices, increasing input costs, or the need for more efficient farming practices, addressing these root causes can contribute to a more balanced and prosperous agricultural sector.

**9. Perceptions of Farming Viability: Assessing Remuneration, Alternatives, and**

**Intergenerational Transition**

RESPONSE	IS FARMING REMUNERATIVE BUSINESS?	WOULD YOU LIKE TO PASS ON FARMING TO YOUR NEXT GENERATION
YES	26	12
CERTAINLY NOT	26	18
NO OTHER OPTION AVAILABLE	17	20

The table offers a revealing glimpse into the mindset of farmers regarding the remunerativeness of farming as a business and their willingness to pass it on to the next generation. The data underscores some striking observations. First, there's a near-even split among farmers on whether farming is considered a remunerative business, with 26 farmers holding a positive view and another 26 expressing uncertainty or skepticism. This divergence of opinions highlights the complexity of farming economics, influenced by factors like market dynamics, input costs, and yield variability.

What's particularly noteworthy is the substantial group of 37 farmers (17 who see farming as their only option and 20 who don't see it as their sole choice) who perceive farming as a path of limited choice rather than preference. This situation is indicative of the economic challenges faced by many farmers, which could, in part, be linked to educational limitations and the lack of alternative livelihood opportunities.

Furthermore, the data reveals that the majority of farmers, represented by 18 respondents, are reluctant to pass on farming to the next generation. This reluctance to continue the farming legacy may reflect concerns about the stability and profitability of agriculture, signaling a need for interventions and policy measures to make farming more attractive and sustainable.

In summary, the data highlights a complex landscape where farming is viewed as both a necessity and, for some, a reluctant occupation. This underscores the importance of addressing economic constraints, promoting agricultural education, and implementing measures to make farming more remunerative and appealing to the next generation.

## CONCLUSION AND SUGGESTION

In conclusion, this research strongly emphasizes the need for a significant shift in how we approach agriculture in India, placing farmers at the center of it all. What this research reveals is that a considerable number of farmers find themselves in agriculture not necessarily by choice, but often because they feel they have no other viable option. Their lack of knowledge about alternatives and limited opportunities in other fields can lead to this situation.

In simple terms, this research is not just about understanding the current situation; it's about shaping a future where farming becomes a more attractive and profitable choice. It's about making sure that the farmers not only survive but thrive.

This research offers a stepping stone for future investigations in the realm of Indian agriculture. It paves the way for in-depth explorations into the effectiveness of policy changes proposed in this study. Researchers may delve into the specific impacts of expanding Minimum Support Price (MSP) to a wider range of crops or the practicalities of promoting direct sales channels from farmers to consumers. Furthermore, future studies might concentrate on the dynamics of creating and strengthening farmer unions to gauge their effectiveness as knowledge-sharing platforms. Additionally, investigations into the intricacies of climate-resilient agriculture and strategies to minimize cultivation costs in diverse regions can be pursued. This research, by highlighting the concerns and aspirations of farmers, serves as a foundation for an array of research avenues aimed at enhancing the prosperity and sustainability of Indian agriculture.

### Suggested Measures:

- Diversify MSP Coverage: Expanding the Minimum Support Price (MSP) to include a broader range of crops, including fruits and vegetables, can ensure that farmers receive fair and remunerative prices for their produce. Along with this, fix MSP considering the cost of cultivation of each kind of crop.
- Promote Direct Selling: Fostering direct sales from farmers to consumers will give more power to farmers in fixing selling prices and will increase their revenue level. Initiatives such as farmers' markets, community-supported agriculture, and online platforms can be actively promoted.
- Alternative Income Sources: The promotion of alternative income sources, such as agrotourism, bee-keeping, poultry, and innovative agri-allied ventures, is critical to enhancing the economic resilience of farmers. The government should provide exclusive job opportunities according to the knowledge and education level of the farmers of India.
- Enhance APMC Infrastructure: Strengthening the network of Agricultural Produce Market Committee (APMC) yards, along with investing in logistics and cold storage facilities, can significantly reduce post-harvest losses and boost farmers' income.
- Climate-Resilient Agriculture: Recognizing the vulnerability of agriculture to climate change, strategies for climate-resilient agriculture should be adopted. Farmer education, weather forecasting, and disaster preparedness are instrumental in safeguarding farming communities.
- Formation of Farmer Unions: Encouraging the formation of farmer unions at regional and national levels can serve as a platform for knowledge exchange, policy awareness, and the dissemination of best practices among farmers. It can further amplify their voices in shaping policies that directly impact their lives.
- Increase Awareness Level: The government should take measures to increase the awareness level of various government schemes and policies for the farmers. They can do so by sending SMSs, through Radio/TV etc.

## BIBLIOGRAPHY

### Weblinks

- <https://pib.gov.in/PressReleasePage.aspx?PRID=1930443>
- <https://sustainableagriculture.net/our-work/campaigns/fbcampaign/what-is-the-farm-bill/>
- <https://pib.gov.in/PressReleasePage.aspx?PRID=1656929>
- <http://www.icar.org.in/>
- <https://www.nabard.org/content1.aspx?id=23&catid=23&mid=530>
- [https://agricoop.gov.in/sites/default/files/FFH201819\\_Eng.pdf](https://agricoop.gov.in/sites/default/files/FFH201819_Eng.pdf)
- <https://www.manage.gov.in/fpoacademy/CGSchemes/central-schemes.asp>
- <https://pmkisan.gov.in/>
- <https://pmfby.gov.in/>
- <https://www.enam.gov.in/web/>

Alagh M. (2011): Agricultural Economy of India and Macroeconomic Effects: Some Empirical Results and a Research Agenda Based on the Literature. Indian Institute of Management, Ahmedabad.

GoI (Government of India) (2005) Income, Expenditure and Productive Assets of Farmer Households. NSS Report No. 497 (59/33/5). National Sample Survey Organization, Ministry of Statistics and Program Implementation, New Delhi.

Joshi P.A. (2015): Challenges of agriculture economy of India. The Business & Management Review, 5: p211.

McCarl B., Villavicencio X., Wu X. (2009): The effect of climate change over agricultural factor productivity: Some econometric considerations.