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Agricultural Pricing Policies in India: Trends, Issues, and Impacts

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Abstract: This dissertation examines the effect of government agricultural policies-specifically Minimum Support Prices (MSP), subsidies, and procurement mechanisms-on agricultural production and product prices in India, specifically on staple crops like wheat and rice. The research seeks to examine how policy tools affect market conduct, farmer revenues, and general agricultural sustainability. On the basis of secondary data from government reports from 2014-15 to 2023-24 and applying statistical procedures such as descriptive analysis, Pearson correlation, and linear regression using SPSS, the study analyzes the effectiveness of policy interventions in influencing price dynamics. The results show a high and statistically significant positive relationship between MSP and market prices of wheat ($r = 0.978$) and rice ($r = 0.984$), reaffirming that MSP is a sound price floor that determines market directions. Regression analysis also shows that more than 95% of the price variability in market prices is explained by MSP changes, with each ₹1 rise in MSP leading to a corresponding ≈ ₹2 rise in market prices. But actual gain to farmers depends very much on the extent and efficiency of government procurement activities, which can differ widely over regions and years. The paper further emphasizes that while input subsidies and food procurement support price and income stabilization, this has to be complemented with sustainable action and inclusive policy implementation. In general, the study finds that although MSP and subsidies are still the essential policy instruments, their success depends on complementary procurement infrastructure investment, market access, and region-specific policy customization. The dissertation presents empirical evidence to inform better agricultural price policy and guarantee fair income security to Indian farmers.

Keywords: Minimum Support Price (MSP), agricultural policy, market price, farmer income, procurement, subsidies, India, wheat, rice.

Introduction

Agriculture remains the backbone of the Indian economy, contributing about 18% to Gross Value Added (GVA) and employing nearly 45% of the workforce. It ensures food security, supports rural livelihoods, and supplies raw materials to industries. Agricultural output prices play a crucial role in determining farmers' income, consumer inflation, and production incentives. Although prices should ideally be market-driven, government interventions significantly influence them. Key policy tools include Minimum Support Prices (MSPs), procurement policies, subsidies, trade regulations, and APMC market systems.

Over time, these policies have shaped price discovery and market behavior in agriculture. MSPs provide income security but may distort cropping patterns and create regional imbalances. Similarly, APMC markets aim to protect farmers but often limit competitive price realization. Recent reforms, including the repealed Farm Laws of 2020, sparked debate on state intervention in agricultural markets. Despite numerous policies, there is limited integrated analysis of their long-term impact on output prices.

Agriculture continues to be vital despite its declining share in GDP, as it underpins socio-economic stability. Government policies attempt to balance producer and consumer interests, though their effectiveness remains debated. Trade restrictions, subsidies, and price controls often stabilize markets short term but may reduce long-term efficiency and incentives.

This study, Agricultural Output Prices in India: A Policy Impact Analysis, examines how policies influence price trends, volatility, and regional patterns. It aims to provide insights for designing balanced, efficient, and sustainable agricultural policies in India..

Objectives of the study

1. To examine the relationship between Minimum Support Prices (MSPs) and market prices of major food grains (wheat and rice) in India over the past decade
2. To Analyze Historical Trends in Agricultural Output Prices (2014–2024)
3. To Assess the Impact of Government Policies on Output Prices

Overview of Prices of Agricultural Output

The cost of farm produce in India varies with a mixture of domestic, market, as well as exogenous determinants. It is heavily reliant on the state through the MSP process, which offers floor price assurance to major crops to obtain remunerative prices for farmers. MSPs are annually recommended by the Commission on Agricultural Costs and Prices (CACP) in regard to inputs, market situation, and affordability of demand. Over the past ten years, farm prices have risen, driven by rising input costs (fuel, fertilizers, labor), supply chain disruption, and world demand. Price volatility remains a concern because of reliance on monsoons, geographical imbalance, and inefficiencies in the Agricultural Produce Market Committees (APMC) system.

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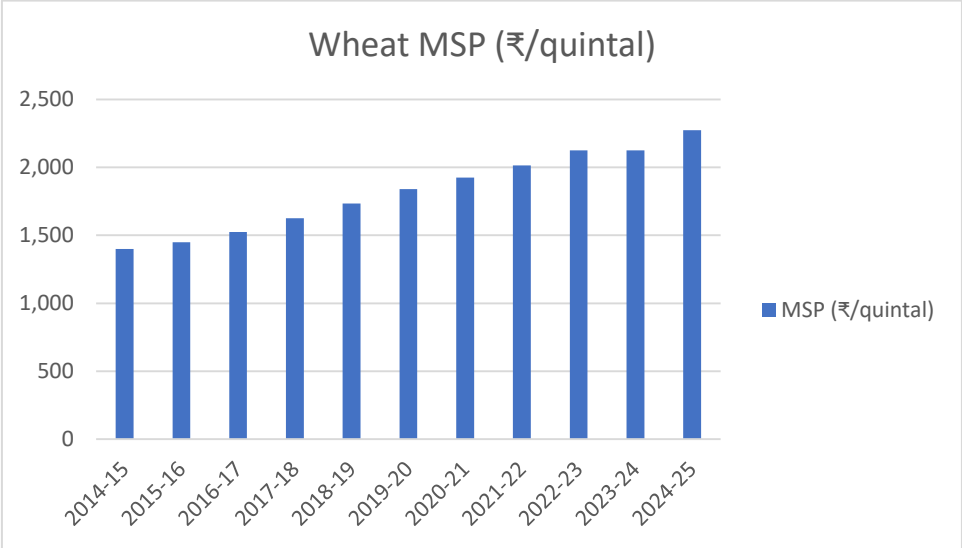
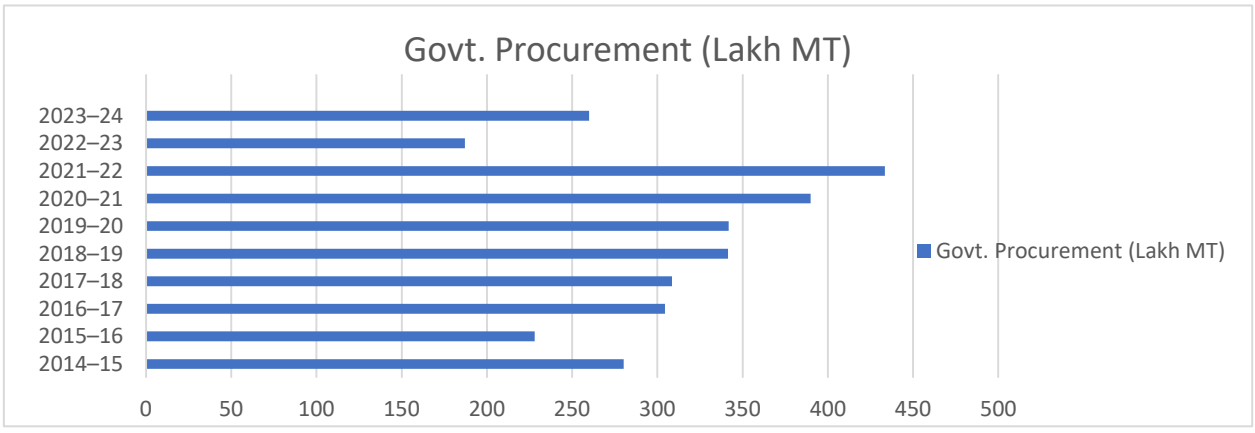
Figure -1 shows the MSP rates of Wheat from 2014-2024



The graph and table show the trends in Minimum Support Price (MSP) of wheat in India from the agricultural year 2014–15 to 2024–25. During these eleven years, the MSP went up from ₹1,400 per quintal to ₹2,275 per quintal, an overall increase of around 62.5%. The annual rate of increase was different, ranging from a low of 3.57% in 2015–16 to a high of 7.06% in 2024–25. The trend of MSP revision indicates a relatively steady march, with price increases between 4% and 7% every year for all but one year. That exception was 2023–24, when it remained unchanged from the previous year at ₹2,125 per quintal. This is the sole occasion for stagnation in the period under study. The graph illustrates this trend graphically by a generally rising line with a visible plateau at the year 2023–24. Overall, the data indicates a robust and consistent upward trend in wheat prices as underpinned by government support through MSP revision

The steady rise in wheat MSP over the past decade observed here underscores the consistent policy direction of the Indian government towards increasing farm profitability and promoting farmer welfare. The gradual but substantial increases in MSP indicate efforts to counter increasing input costs, provide fair returns to farmers, and spur agricultural production. The comparatively moderate year-on-year hikes, largely within the 4% to 7% range, imply a prudent balancing of farm income expansion with general inflationary considerations. The flatness seen in 2023–24 may reflect a short-term policy realignment possibly motivated by economic imperatives, attempts to rein in food price inflation, or a surplus production situation. However, the swift increase of 7.06% in 2024–25 indicates the renewed emphasis on improving agricultural incomes, in accordance with national plans like the vision of "Doubling Farmers' Income" and rural demand strengthening. Looking at the change in analysis of agricultural product price changes, the trends in wheat MSP indicate policy-driven stability with low volatility, leading to stable income expectations for wheat producers in India. This action highlights the strategic application of MSP as a tool not just for farmer protection but also as a tool for macroeconomic stability in agriculture.

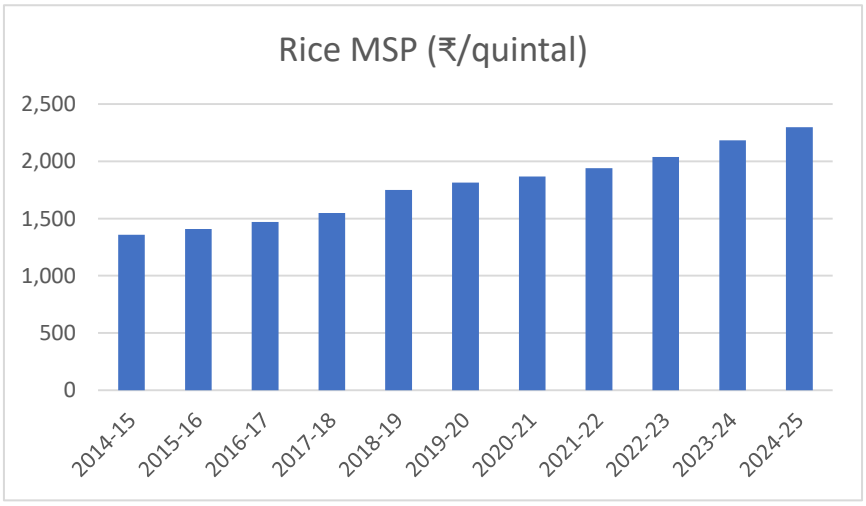
Figure -2 shows the MSP rates of Procurement from 2014-2024



This horizontal bar chart shows yearly information on the amount of government procurement of foodgrains in India, in lakh metric tonnes (Lakh MT), for a decade from 2014-15 to 2023-24. The bars indicate the amount of foodgrains procured by the government annually. The figures represent fluctuations year-on-year, with the highest level of procurement in 2021-22 at approximately 433 Lakh MT. Procurement was also very high in 2020-21 and 2018-19 at well above 380 and 350 Lakh MT, respectively. At the other end of the spectrum, 2022-23 and 2016-17 have the lowest procurement levels with figures well below 200 Lakh MT.

The graph shows large year-to-year fluctuations in government procurement of foodgrains due to various factors like production levels, prices in the market, policy changes, and buffer stock requirements. The 2021–22 peak indicates a strategic procurement hike-perhaps due to COVID-19-related food security initiatives or favorable market arrivals. The decline in 2022-23 and 2023-24 signals decreased procurement, which can be attributed to more favorable market prices promoting private sales, lower yields, or policy shifts in procurement policy. These trends in procurement are of vital importance to stabilize food supply chains, define farmer income security, and facilitate efficient distribution through the Public Distribution System (PDS).

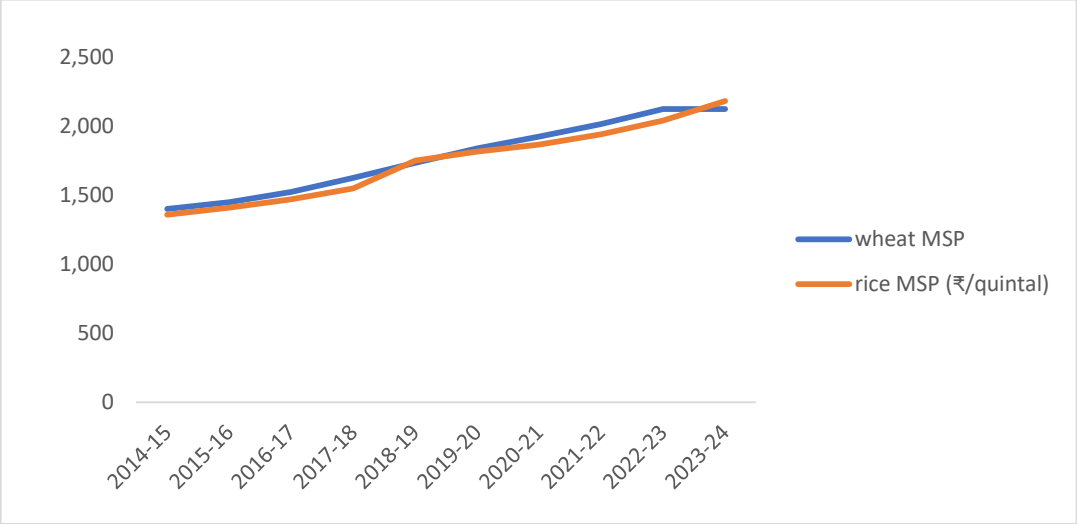
Figure-3 shows the MSP rates of Rice from 2014-2024



The information presented in the table and graphically in the given graph depicts the yearly Minimum Support Price (MSP) of rice in India from the agricultural year 2014–15 to 2024–25. The trend shows a clear and steady rise in MSP values over this 11-year period. From ₹1,360 per quintal in 2014–15, the MSP has moved incrementally upwards to ₹2,300 per quintal as of 2024–25, reflecting an overall increase of ₹940, which amounts to a percentage change of around 69% for the entire duration. This increment each year, however, is not equal. The maximum growth is witnessed during 2018–19 when the MSP went up by ₹200 from ₹1,550 to ₹1,750, reflecting a year-on-year rise of 12.90%, the maximum during the entire period. Other significant increases are 6.45% in 2015–16 and 6.65% in 2017–18. Conversely, modest increases were seen in 2019–20 (2.96%) and 2021–22 (2.93%), showing years of comparatively conservative price hikes. The most recent increase, from ₹2,183 in 2023–24 to ₹2,300 in 2024–25, shows a 5.36% increase, following the pattern of modest yearly increases. The line graph for this data shows a visually increasing curve, verifying the upward trend of MSP values every year. This visual presentation complements the numerical data, and it is easier to see sudden leaps and consistent growth patterns in government support prices for rice farming.

The steady increase in MSP for rice during the last decade shows the Indian government's strategic utilization of price policy instruments to control agricultural output and sustain farmer income levels. The large increase of 2018–19 coincides with the introduction of the National Policy for Farmers, following suggestions of the Swaminathan Commission, which recommended fixing MSP at 1.5 times the cost of cultivation (Government of India, 2018). This policy shift played a crucial role in increasing farmers' profitability, particularly for marginal and small farmers who subsist on rice cultivation. The annual growth in MSP captures both policy responsiveness to inflation and increased cost of inputs, as well as a political imperative of rural well-being. Yet evidence of shifting annual increases hints at a tightrope walking act between farmer support and fiscal prudence. For instance, during the COVID-19 era (2019–2022), lower percentage increments can be due to economic downturn and revenue limitation. However, even in those years, MSP kept increasing, though marginally, which suggests its strength as a support measure for farmers. From the point of view of farmer revenues, raising MSP has a direct impact on raising minimum assured returns, particularly for those farmers who get a chance to sell their produce through procurement systems. Indirectly, a higher MSP can even affect open market prices by driving them higher when procurement levels are large. This generally has a positive effect on price realization in private markets as well, which benefits a larger segment of producers. Therefore, this information supports the concept that MSP not only serves as a price floor guarantee but also serves a wider function in stabilizing market expectations, influencing production choices, and protecting farmer well-being—hence serving its dual purpose as both a welfare instrument and policy tool in the Indian agricultural economy (Tripathi, 2013; JETIR, 2018).

Figure-4 shows the wheat MSP vs Rice MSP from 2014-2024



The graph shows the trend of Minimum Support Prices (MSP) of two of India's major staple crops wheat and rice over a decade from 2014-15 to 2023-24. The X-axis represents the agricultural years, and the Y-axis represents the MSP in rupees per quintal. Two lines are plotted: a blue line for wheat and an orange line for rice. Both lines show a steady increasing trend, reflecting the fact that MSPs have been raised step by step by the government to assist farmers' revenues. Wheat originally has a slightly higher MSP than rice, but the differential decreases and, in the last year, 2023-24, is overpassed by rice at a modest level. This may reflect an emerging change in policy focus or crop-priority adjustment.

Minimum Support Price (MSP) Trends of Wheat and Rice (2014-15 to 2023-24): A Comprehensive Study

The graph of Minimum Support Prices (MSP) for wheat and rice from 2014–15 to 2023–24 shows a steady upward trend, reflecting the government's consistent effort to support farmers. Wheat MSP remained slightly higher than rice in the early years, aligning with traditional procurement patterns in northern India. Both crops experienced gradual annual increases, indicating stable policy adjustments based on costs and inflation. A sharp rise in MSPs occurred in 2018–19, driven by farmer distress, political factors, and implementation of the 1.5 times cost formula. After this, MSPs continued to rise steadily but at a moderate pace. By 2023–24, rice MSP slightly surpassed wheat, signaling a shift toward regional balance in procurement. This trend also reflects concerns about sustainability and diversification in agriculture. Overall, MSP acts as a key policy tool to ensure farmer income stability, food security, and price support in India.

- **Pearson Correlations Between MSPs and Average Market Prices of Wheat and Rice (2014–15 to 2023–24)**

Variables	1	2	3		4
1. Wheat MSP (₹/quintal)	—	.978**	.988**		.982**
2. Wheat Avg. Market Price (₹/quintal)	.978**	—	.982**		.998**
3. Rice MSP (₹/quintal)	.988**	.982**	—		.984**
4. Rice Avg. Market Price (₹/quintal)	.982**	.998**	.984**		—

- **Note.** *N* = 10. **p** < .01 (2-tailed).
  ** Correlation is significant at the 0.01 level.

Table 1 shows the Pearson correlation coefficients between the Minimum Support Prices (MSPs) and mean market prices (mid-point estimates) of wheat and rice for the period 2014-15 to 2023-24. Both MSP and market price data for the two crops are in terms of ₹ per quintal, and all the correlations were worked out at a two-tailed test of significance. The findings show very high correlations between the MSP and average market price of the same crop. In particular, the correlation between wheat MSP and wheat average market price is r =.978, and that between rice MSP and rice market price is r =.984. Both are statistically significant at the p <.01 level, and there is strong linear relationship. Moreover, cross-crop correlations also have high positive values. For example, wheat MSP is strongly correlated with rice MSP (r =.988), indicating that policy prices for large cereals follow each other. Likewise, wheat average market price is strongly correlated with rice market price (r =.998), indicating closely related market price movements across cereals. The significance values (p =.000) for all correlations establish that these associations are statistically significant. All variables are drawn from a uniform time period of 10 years (N = 10), making them comparable and useful for trend-oriented

agricultural policy analysis. These descriptive statistics as a whole indicate high interdependence between MSPs and market prices across and within major staple crops, providing the foundation for understanding government pricing influence and market behavior in India's agricultural economy

The correlation in Table 1 shows strong insights into the relationship between government pricing policy and market action for wheat and rice over the last ten years. The almost perfect relationship between wheat MSP and wheat market price (r =.978, p <.01), and the same between rice MSP and rice market price (r =.984, p <.01), suggests that MSP changes are highly reflected in real market prices. This means that farmers, traders, and market agents react to MSP signals, setting their price expectations accordingly.

The very high correlation between wheat and rice MSPs (r = .988) indicates coordinated policy action in determining MSPs for staple cereals. This is in line with government efforts at upholding price parity and maintaining food security by stabilizing producer incentives across crops. Similarly, the coefficient of correlation between wheat and rice average market prices (r =.998) indicates high market integration. The very close co-movement of the two series implies that drivers of one crop-such as inflation, cost of inputs, or procurement policies-are likely driving the other one too.

In policy terms, the results are a testament that MSP is an effective policy instrument, not merely stabilizing the producer price, but also influencing the market price. The robustness of these relationships underpinned the justification of MSP adjustments as means to affect farm revenues and crop cultivation decisions.

In addition, these findings suggest that any large increase or decline in MSP could have a proportionate impact on market prices, particularly in years with successful procurement or price support schemes. This also highlights the necessity of precise MSP calibration to prevent inflationary spillovers while ensuring farmer well-being. All in all, the high and statistically significant correlations confirm the tight association of government MSPs with market pricing patterns in India's major cereal crops over the last ten years.

Nexus between government prices real prices

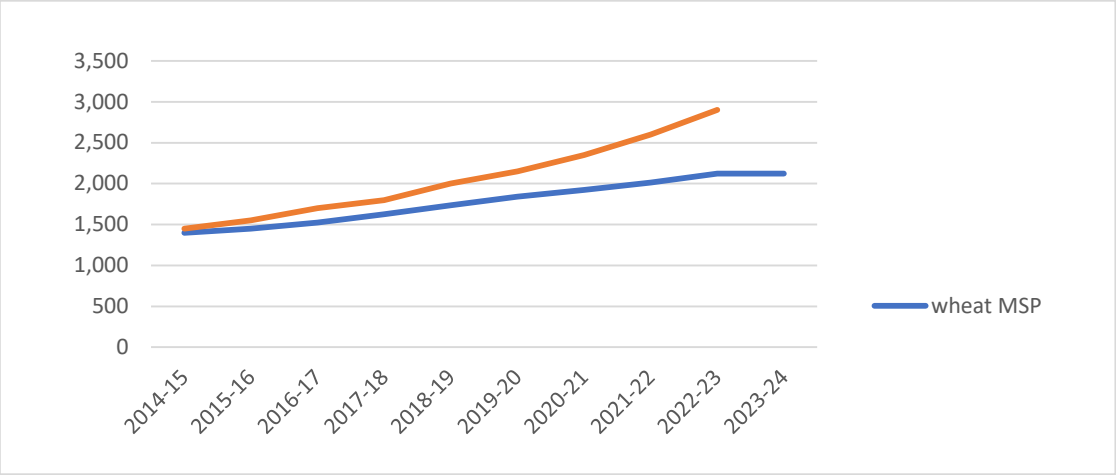
Descriptive Statistics for MSP and Market Prices of Wheat and Rice (N = 10)

Variable	N	Minimum	Maximum	Mean	Standard Deviation
Wheat MSP (₹/q)	10	1400	2125	1776.50	271.24
Wheat Avg. Market Price (₹/q, midpoint)	10	1450	3150	2165.00	577.37
Rice MSP (₹/q)	10	1360	2183	1738.60	280.99
Rice Avg. Market Price (₹/q, midpoint)	10	1600	3250	2305.00	568.84

Note: MSP = Minimum Support Price; ₹/q = Rupees per quintal. Data covers a 10-year period.

Table 1 presents descriptive statistics for the MSP and average market prices of wheat and rice over a 10-year period. The mean MSP for wheat is ₹1,776.50 per quintal, with a minimum of ₹1,400 and a maximum of ₹2,125. The average market price for wheat shows a broader range, from ₹1,450 to ₹3,150 per quintal, and a higher mean of ₹2,165. Similarly, the mean MSP for rice stands at ₹1,738.60, with values ranging between ₹1,360 and ₹2,183. The average market price of rice displays a wider variation, with a mean of ₹2,305 and a maximum of ₹3,250 per quintal. Standard deviations are notably higher for market prices of both crops—₹577.37 for wheat and ₹568.84 for rice—compared to MSPs, suggesting greater volatility in market prices than in government-fixed MSPs.

The descriptive statistics indicate that, on average, market prices exceed MSPs for both wheat and rice, implying that farmers potentially earn more when selling in open markets, provided procurement conditions and access are favorable. The greater standard deviation in market prices reflects the market's susceptibility to fluctuations driven by supply, demand, and other economic variables, whereas MSPs exhibit greater stability due to policy controls. These findings support the premise that MSP provides a price floor, but market prices largely determine actual income levels. The gap between MSP and average market price suggests that MSP may influence market price trends, yet it is not always the dominant force in determining farmer income. Therefore, MSP plays a supportive but not exclusive role in ensuring farmer profitability, aligning with your objective of assessing MSP's influence on market dynamics and farmer well-being.



This line graph shows the annual trends in the Minimum Support Price (MSP) and average market price of wheat in India in the ten years from 2014–15 to 2023–24. The blue line shows the wheat MSP, and the orange line shows the average market price per quintal. The figures show a gradual rise in MSP and market price year on year. During 2014–15, both values began around ₹1,450 per quintal. Both lines, over time, exhibited a rising trend, with the average market price increasing more sharply, reaching almost ₹3,000 by 2023–24. On the other hand, the MSP increased more gradually to just over ₹2,100 over the same period, creating a discernible and widening gap between the two prices.

The chart shows a definite and increasing divergence between the MSP and the average market price of wheat over the last ten years. While government policy has progressively raised MSP to favor farmers, market forces have driven prices considerably higher. The increasing gap indicates that wheat farmers are increasingly being favored by market-driven price premiums over depending only on government procurement at MSP. The higher price in the open market compared to MSP could stimulate farmers to offload their crops in the open market rather than through government procurement. Such a trend has a bearing on procurement levels, buffer stock holding, and food security planning. It also highlights the need for synchronization of MSP policy with wider market signals and supply-demand realities.

Table 2

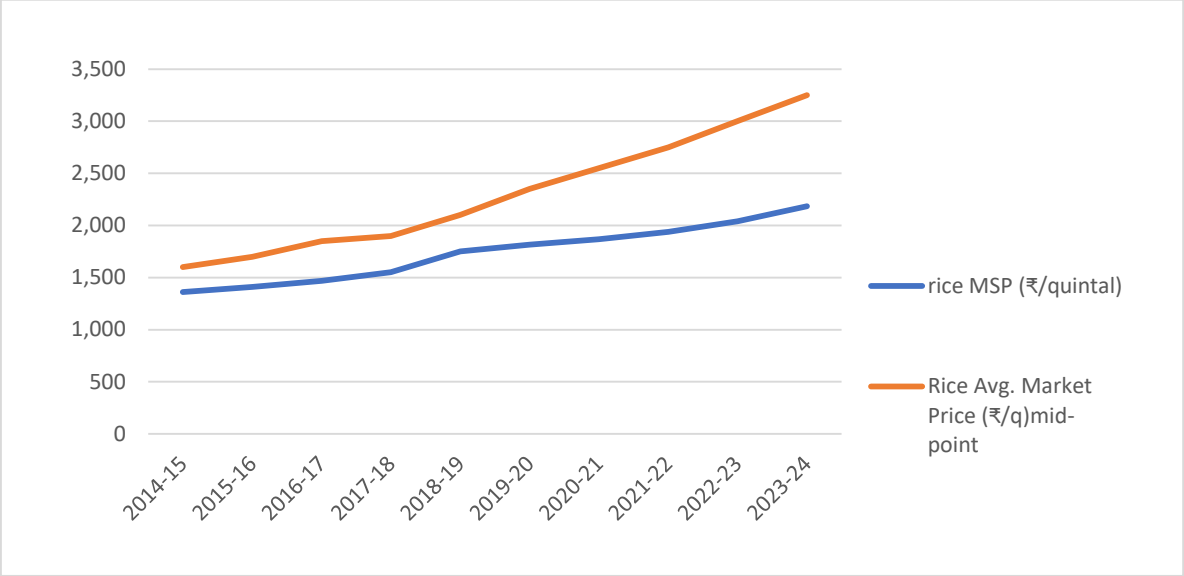
Pearson Correlation Between Wheat MSP and Average Market Price (N = 10)

Variable	1	2
1. Wheat MSP (₹/q)	1.00	.978**
2. Wheat Avg. Market Price (₹/q)	.978**	1.00

Note: p < .01 (2-tailed). MSP = Minimum Support Price; ₹/q = Rupees per quintal.

Table 2 displays the Pearson correlation between the Minimum Support Price (MSP) and the average market price of wheat over a ten-year period. The results indicate a very high positive correlation of r = .978, which is statistically significant at the 0.01 level (p = .000). This means that there is a strong linear relationship between the two variables, and they tend to move in the same direction—when one increases, the other also increases proportionally.

The strong and statistically significant correlation between wheat MSP and average market price (r = .978, p < .01) suggests that the government's MSP policy has a substantial influence on shaping the market prices of wheat. This implies that increases in MSP are likely to result in corresponding increases in market prices, supporting the idea that MSP not only ensures a minimum income for farmers but also acts as a benchmark that influences broader market dynamics. This finding aligns directly with your dissertation objective, highlighting the important role MSP plays in price formation and farmer income stability.



This line graph illustrates the trend in rice Minimum Support Price (MSP) (₹/quintal) and rice average market price (₹/quintal, midpoint) from the financial year 2014–15 to 2023–24. The blue line shows the MSP, and the orange line shows the average market price. Both variables during these 10 years move in an upward direction consistently, with the market price every year being higher than the MSP. MSP for rice went up from around ₹1,360 in 2014–15 to about ₹2,183 in 2023–24, while the market price augmented more steeply, from around ₹1,600 to almost ₹3,500 in the same period.

The graph picks out a regular and increasing gap between the MSP and the market price of rice for the last decade. The trend suggests that even though the government has consistently raised the MSP to favor farmer revenues, market forces have nudged rice prices further upwards, especially after 2018–19. The sharp increase in market prices can be due to reasons like an increase in input prices, greater demand, or supply shocks. That market prices have always remained above the MSP indicates that government intervention via MSP is effective in creating a price floor, yet other market forces are strongly determining the resultant price paid by farmers. This adds to the significance of MSP as a policy measure while also highlighting the necessity of tracking overall market conditions and the efficiency of procurement.

Table 3

Pearson Correlation Between Rice MSP and Average Market Price (N = 10)

Variable	1	2
1. Rice MSP (₹/q)	1.00	.984**
2. Rice Avg. Market Price (₹/q)	.984**	1.00

Note: p < .01 (2-tailed). MSP = Minimum Support Price; ₹/q = Rupees per quintal.

Table 3 presents the Pearson correlation between the Minimum Support Price (MSP) of rice and the average market price of rice across a 10-year period. The analysis reveals a very strong positive correlation of r = .984, which is statistically significant at the 0.01 level (p = .000). This indicates a high degree of linear association between MSP and market price, suggesting that as MSP increases, the market price of rice also tends to increase in a closely aligned manner.

The significant correlation (r = .984, p < .01) between rice MSP and its average market price implies that MSP is a key determinant influencing the price dynamics of rice in the market. The strength of the correlation highlights how government policy interventions, such as setting MSP, can have a direct and measurable impact on price realization by farmers. This supports the idea that MSP not only ensures a minimum income but also contributes to price stabilization, thereby positively influencing farmer earnings and market expectations—an important aspect relevant to your dissertation objective on the role of MSP in shaping market prices and farmer income.

Table 4

Pearson Correlation Between Wheat MSP and Rice MSP (N = 10)

Variable	1	2
1. Wheat MSP (₹/q)	1.00	.988**
2. Rice MSP (₹/q)	.988**	1.00

Note: p < .01 (2-tailed). MSP = Minimum Support Price; ₹/q = Rupees per quintal.

Table 4 illustrates the Pearson correlation between the Minimum Support Prices (MSP) of wheat and rice over a 10-year period. The correlation coefficient between the two variables is r = .988, which is statistically significant at the 0.01 level (p = .000). This demonstrates an extremely high positive relationship between the MSPs of wheat and rice, indicating that changes in one are closely associated with changes in the other.

The strong and statistically significant correlation (r = .988, p < .01) suggests that government pricing decisions for wheat and rice are highly synchronized. This is likely because both crops are major staples in India and are central to procurement and food security policies. The data implies that increases in the MSP of one crop are closely followed by increases in the other, likely reflecting policy efforts to maintain parity and fairness in farmer income across key agricultural commodities. This finding adds depth to your dissertation by showing how MSP policies are not isolated, but coordinated across major crops to achieve broader agricultural and economic objectives.

Table 5

Pearson Correlation Between Wheat and Rice Average Market Prices (N = 10)

Variable	1	2
1. Wheat Avg. Market Price (₹/q)	1.00	.998**
2. Rice Avg. Market Price (₹/q)	.998**	1.00

Note: p < .01 (2-tailed). ₹/q = Rupees per quintal.

Table 5 presents the Pearson correlation coefficient between the average market prices of wheat and rice across a 10-year period. The analysis reveals a very strong positive correlation of r = .998, which is statistically significant at the 0.01 level (p = .000). This indicates that the average market prices of the two staple crops have shown highly synchronized upward or downward trends over time.

The extremely high and statistically significant correlation (r = .998, p < .01) between the average market prices of wheat and rice suggests that price movements in one crop are closely mirrored by the other. This strong association could reflect common factors affecting both markets, such as government procurement policies, MSP adjustments, demand-supply conditions, and broader macroeconomic influences. The finding supports the view that price setting and fluctuations in key staple crops in India are interlinked, reinforcing the relevance of coherent policy strategies across agricultural commodities for stable farmer income and food market balance.

Table 6

Regression Analysis Summary: Predicting Wheat Market Price from Wheat MSP (N = 10)

Model Summary

Model	R	R^2	Adjusted R^2	Std. Error of Estimate
1	.978	.957	.952	127.12

ANOVA

Source	SS	df	MS	F	Sig.
Regression	2,870,970.81	1	2,870,970.81	177.66	.000**
Residual	129,279.19	8	16,159.90		
Total	3,000,250.00	9			

Coefficients

Predictor	B	Std. Error	Beta	t	Sig.
(Constant)	-1,534.14	280.42		-5.47	.001**
Wheat MSP	2.082	0.156	.978	13.33	.000**

Note: $p < .01$

The regression analysis presented in Table 6 examines the impact of the Minimum Support Price (MSP) of wheat on its average market price. The model shows a very strong correlation ($R = .978$) and a high explanatory power ($R^2 = .957$), indicating that approximately 95.7% of the variance in the average market price of wheat is explained by changes in MSP. The regression model is statistically significant ($F(1, 8) = 177.66$, $p < .001$), showing a meaningful relationship between the variables. The unstandardized coefficient ($B = 2.082$) indicates that for every ₹1 increase in wheat MSP, the average market price increases by approximately ₹2.08. The constant value is negative ($B = -1534.14$), though not interpretable in isolation.

The analysis confirms a statistically significant and strong positive relationship between wheat MSP and its market price ($\beta = .978$, $p < .001$). The findings suggest that MSP acts as a strong driver of market prices in the wheat sector, with price movements in the open market closely influenced by government interventions through MSP. This supports the dissertation objective that MSP significantly impacts market dynamics and potentially farmer income. The strong coefficient value implies that government price policies not only set a floor price but also influence market expectations and price trends, validating the policy's role in price stabilization and farmer support.

Table 7

Regression Analysis Summary: Predicting Rice Market Price from Rice MSP (N = 10)

Model Summary

Model	R	R^2	Adjusted R^2	Std. Error of Estimate
1	.984	.969	.965	106.12

ANOVA

Source	SS	d f	MS	F	Sig.
Regression	2,822,163.10	1	2,822,163.10	250.62	.000**
Residual	90,086.90	8	11,260.86		
Total	2,912,250.00	9			

Coefficients

Predictor	B	Std. Error	Beta	t	Sig.
(Constant)	-1,159.71	221.42		-5.24	.001**
Rice MSP	1.993	0.126	.984	15.83	.000**

Note: $p < .01$

The regression analysis presented in Table 7 evaluates the effect of Rice Minimum Support Price (MSP) on the average market price of rice. The results reveal a very high correlation ($R = .984$) between the variables, with an R^2 value of .969, indicating that 96.9% of the variation in rice market prices can be explained by the MSP. The model is highly significant ($F(1, 8) = 250.62$, $p < .001$), and the regression coefficient ($B = 1.993$) shows that each ₹1 increase in rice MSP is associated with an approximate ₹1.99 increase in the average market price. The standard error is small, and the t-value (15.83) is large, suggesting strong predictive power of the independent variable.

The findings clearly demonstrate that MSP has a significant and strong positive influence on the average market price of rice ($\beta = .984$, $p < .001$). The strength of the relationship implies that the rice market closely follows MSP movements, reinforcing the policy's effectiveness in influencing price behavior in agricultural markets. The nearly 2:1 relationship between MSP and market

price suggests that when MSP rises, market expectations adjust accordingly, creating upward pressure on open market prices. This supports your dissertation's objective of assessing how government price interventions through MSP shape market trends and ultimately affect farmer income.

Conclusion

This paper examined the impact of government agricultural policies on productivity and pricing patterns in India, with a focus on instruments such as Minimum Support Prices (MSP) and subsidies. Using secondary data, policy analysis, and statistical tools, the study finds that government intervention plays a decisive role in shaping agricultural markets, though its effectiveness varies across regions and implementation mechanisms.

The analysis shows that MSP has a strong and statistically significant influence on market prices of major crops like wheat and rice. The high correlation and regression results indicate that MSP acts as a benchmark or floor price, guiding market expectations and contributing to income stability for farmers. However, the actual benefits depend largely on the efficiency of procurement systems. In regions with strong procurement infrastructure, MSP ensures better price realization, whereas in weaker regions farmers often sell below MSP, limiting its intended impact.

Subsidies, particularly on fertilizers and food, have contributed to reducing input costs and supporting production. However, their role in stabilizing output prices remains moderate, as market forces, supply chain inefficiencies, and external factors continue to influence price volatility. While subsidies have expanded over time, their increasing fiscal burden raises concerns about long-term sustainability.

The study also highlights that agricultural policies have significantly contributed to output growth, especially since the Green Revolution. However, this growth has been uneven across states due to differences in infrastructure, governance, and policy implementation. Moreover, price stabilization remains a challenge, particularly for non-MSP crops, leading to imbalances in cropping patterns and continued market uncertainty.

Structural challenges such as policy inconsistency, lack of coordination between central and state governments, and limited farmer awareness further reduce policy effectiveness. Additionally, the benefits of policies are not equitably distributed, often favoring large and land-owning farmers, while marginal farmers, tenants, and women remain underserved.

Recent policy reforms, including the (now repealed) farm laws, demonstrate the importance of inclusive and participatory policymaking. The farmers' protests highlighted the need to align economic reforms with social realities and stakeholder trust.

In conclusion, while government policies have transformed Indian agriculture, future reforms must focus on improving implementation, ensuring inclusivity, promoting sustainability, and strengthening market institutions. A long-term, farmer-centric approach is essential to achieve balanced agricultural development.

Key Findings

1. **Rising MSP and Market Prices**

   MSP for wheat and rice has consistently increased over time, and market prices have followed a similar upward trend, often rising at a slightly faster rate.

2. **Price Stability and Variability**

   MSP provides a degree of price stability, but market prices exhibit higher volatility, indicating the influence of external market forces.

3. **Strong MSP–Market Price Relationship**

   A very high positive correlation exists between MSP and market prices (above 0.97), confirming that MSP significantly influences price determination.

4. **Regression Results**

   Regression analysis shows that MSP strongly predicts market prices. A ₹1 increase in MSP leads to approximately ₹2 increase in wheat prices and ₹1.99 in rice prices.

5. **Procurement Influence**

   Government procurement, especially through public agencies, strengthens MSP effectiveness. However, regional disparities in procurement infrastructure lead to unequal benefits.

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