

Could Well-Intentioned Policies End up Worsening Inequalities? An Investigation of Paddy Prices across India and the Policy of Announcing Support Prices

Prerona Baruah¹

Abstract

This study uses wholesale market level data from 2003 to 2016 to examine if, and how, the differences in the access to the support-price policy have influenced price movements of one of India's major food-grains: paddy. It also analyses whether the pattern of availability/absence of procurement facilities could be indirectly influenced by some other important factor like class relations and economic inequalities. The paper finds that prices often fall below the government declared support price (MSP) wherever procurement is low. Furthermore, it is in States like Jharkhand and West Bengal, where rural regions have a relatively low concentration of landownership that the extent of procurement is lower. By contrast, in States like Punjab and Haryana, which are relatively affluent regions marked by high class inequalities, procurement is higher. As the former regions are also lagging behind in terms of economic development, continuation of such uneven procurement patterns will worsen both inter-regional and intra-regional inequalities. Given that the present government's response to farmer distress has been overtly in terms of raising the MSP, this pattern will reinforce and worsen the skewed distribution of wealth across already unequal regions.

1. Introduction

Until a few decades ago, the preoccupation with growth overshadowed concerns over economic inequality, except for in Marxist discourses. It is only after the 1970s-80s that the strong voice of Development Economists like Tony Atkinson, Angus Deaton, Joseph Stiglitz, Branko Milanović, Thomas Piketty and others brought this issue overtly in to mainstream academic discourses. As Ray (1998) puts it, inequality is not just undesirable for its own intrinsic sake, but also for the fact that it hinders long run growth of an economy as a whole. With the emergence of welfare states in the later decades of the twentieth century, many governments began to actively engage in formulating policies that would soften the adversely unequal outcomes of purely capitalist markets and provide a safety net to those who lose out in the market competition.

¹ Prerona Baruah (b.prerona@iitg.ac.in) is a research scholar with the Department of Humanities and Social Science (HSS), IIT, Guwahati.

If we look at development of the different sectors of the economy, it is the primary sector that tends to lag behind in most developing countries. The urban bias thesis (UBT) of Lipton (1977) attributes this to the rural-urban divide. As the urban sector is more organised and has more power, it is able to influence policy decisions in its favour. However, it is the rural sectors that contain more poverty and also 'low-cost sources of potential advance'. This leads to not just unfair but also slower development. Although the original thesis has been debated and challenged on multiple grounds, Rao (1980) points out that it reminds the social scientists of the L.D.C.s that they have neglected the basic tasks: (a) making a realistic study of the problems of development, and (b) seeking relevant answers that may solve their many contradictions.

If we look at India, our agricultural sector has been struggling with different challenges throughout the decades since the country's independence. By now, the phrases 'agrarian distress' and 'farmer suicide' have now become closely linked to rural India. By 2012-13, about 42 percent of those engaged in agriculture in the country expressed the desire to quit (NSSO, 2014). A crucial issue is that as an occupation, farming is increasingly being termed as 'non-remunerative' in several developing countries. While the works of Prebisch (1950), Singer (1950) and Lewis (1954) postulate a theoretical downward trend in primary commodity prices over time, Patnaik (2003) attributes the prolonged fall in primary product prices directly to the contractionary fiscal policies of developing county governments undertaking neoliberal reforms, and to trade liberalization in a context of worldwide recession.

The masses of Indian farmers have a limited resource base and slumps in the price of agricultural commodities could adversely affect their livelihood sustainability. As a major support policy, the government of India (GOI) tries to provide a floor to the market price of some major commodities by announcing a Minimum Support price (MSP)². In the event when market price falls below the MSP, the farmers have the option to sell any quantity of their produce to the government at the MSP. Since 1965, MSP has remained as the cornerstone of India's agricultural policy (GOI, 2012). The response of the present government to the current distress has increasingly been in the lines of this policy. The Budget presented for 2018-19 put forth an increased MSP as a fix-all solution to ensure remunerative prices to farmers.

Although it is well-intentioned, a major flaw with the support-price policy is its uneven implementation. A farmer will be able to benefit from MSP only if there is a government agency to procure the item at the announced price in the region. Adequate procurement agencies are, however, absent in several States. Even in those states where procurement takes place, it is restricted to only a subset of farmers (GOI, 2016;NSSO, 2014). This implies that procurement is selective.

The above discussion leads us to two important research questions: (1) Does the access (or absence of access) to MSP influence the price received by farmers? (2) Is

²Support price is effective mainly in case of four crops, i.e. wheat, paddy, cotton, sugarcane. For sugarcane, there is SAP, mills are legally obligated to buy cane from farmers at prices fixed by government

the inequality in access to MSP rooted in some structural factor? If procurement is higher in regions where class inequalities are high, and if this selective procurement does lead to systemic price differences, it may disproportionately benefit larger farmers and, over time, worsen economic inequalities. It will also have adverse consequences for the long-run distribution of wealth across the country, which can affect the country's future development prospects.

This paper takes up the two research questions stated above and looks into the decades after the 2000s. Important technological advances and policy changes had occurred in India in the decades that precede this period. From 1950 to 1990, land reforms were aimed at redistributing land in favour of the smaller farmers. By the 1980s, India's Green Revolution (the seed-water-fertilizer revolution) had spread to many parts of the country and transformed the way agriculture is practiced even by small and marginal farmers. The 1990s saw liberalisation of the economy and there was a growing recognition of the need to raise the terms of trade (ToT) in favour of agriculture. So now, the question is: Even after these reforms, do structural factors (like class inequalities) continue to influence agricultural policy execution and market outcomes? The fact that India has been in the grip of an agrarian crisis makes investigating this issue quite crucial. If the execution of a policy like the MSP that is intended to support poor farmers has ended up widening class inequalities, it would have adverse consequences on economic welfare.

2. A Quick Look at Literature and Theories

Agriculture is as old as civilization is. Yet, it has deluded academicians in understanding its complexities. Agricultural prices are tricky and are highly sensitive to local and temporal influences. Conventionally, spatial variations in agricultural prices have been attributed to differences in the way production is organized, grades/varieties, transport, transaction and marketing costs, information gaps etc. In policy related discussions, an emerging issue is the possibility of agricultural policy itself being a major source of inter-state disparity in price realizations by farmers. An important concern being raised in some circles is that the bias in foodgrain procurement could be a source of systemic disparities in the price received by farmers against their produce at wholesale markets in different regions (Bathla, 2012; Chatterjee & Kapur, 2016; GOI, 2016; GOI, 2015; Haque & Joshi, 2018). A study by Chatterjee & Kapur (2016) finds that, within specific States, the real prices across primary agricultural produce assembly markets (mandis) show high variation. This indicates that, apart from differences in quality, there may be some systemic sources leading to spatial variation in prices. Using a Shapley-Shorrocks decomposition, they find that during the period from 2005-2014, time-invariant district fixed effects accounted for 37 per cent of the variation in log (real) prices. They have related this persistence of spatial price variation to the practice of selective procurement by government.

Now, a second and more significant question that arises is: are the observed spatial differences in procurement a second-order manifestation? In simple words, is there some other factor which could determine locations where farmers have access to procurement and where they do not? An answer to this can be found in the theoretical

discourses of Michal Kalecki and Ashok Mitra who argue that in developing economies, class relations have an important influence on relative prices. Kalecki (1971) points out that large farmer may be able to exercise monopolistic power in selling agricultural produce in those regions where the distribution of land ownership is highly skewed. Mitra (1977) argues that class relations can explain the varying pressures affecting pricing decisions concerning agricultural commodities in India. Although the share of big farmers in total output is small, the quality of influence that they bring to bear upon the state of expectations in the market is crucial. They are in a position to decide the location and timing of release of stocks. In an open market, it is operations at the margin that determine the basic trends and thus big farmers in regions with high land-ownership inequality may be in a position to push relative prices up. The way the policy of administered prices (MSP) was executed in India, he points out, has led to not just inter-regional price disparities, but also to inter-crop discriminations. Over time, the support price of rice has increased less proportionately than that of wheat³, which could be a major cause of the shifting of the relative price between the two commodities against rice. Such a trend is also seen in the case of cotton and jute, with jute being at the disadvantaged position. He attributes these differences in the rates of increase in respective MSPs to the fact that the relatively weaker elements, i.e. the small and marginal farmers, predominate in the cultivation of certain crops (here, rice and jute) and in certain regions (here, eastern and some southern regions) and they are unable to shift policy in their favour. Thus, he asserts that interregional disparities are an outcome of “political arrangements having their roots in the antithesis of class”.

These arguments were raised in the 1970s. The land, technology and neo-liberal reforms gathered pace in the decades that followed with an objective to make land and production relations more democratic. However, Patnaik (2003) points out that except in Punjab, it is the conservative path of landlord-dominated redistribution that has taken place in all the States. Furthermore, an estimated maximum of only about 12 per cent, of total cultivated area has been redistributed at the all-India level in the four decades of reform and the ex-intermediaries continued to monopolize land ownership and extract rent.

The relatively recent works of Chatterjee & Kapur (2016) and Bathla (2012) tell us that there are significant differences in the prices being realized by farmers across India. They point at differences in access to MSP as a possible factor but do not explore the possible links between these differences and structural factors like land inequality. It is in this gap that this study is placed. If influences of class inequalities are still strong in shaping agricultural market outcomes, we have reason to doubt the efficacy increased MSP in reducing inequalities in a country where small and marginal farmers are growing every year.

3. Data and Methods

In this study, we take up the case of paddy (dhan), which is one of the two most

³ Wheat has traditionally been a major crop in western parts of the country, while rice has been the major crop of the eastern and southern regions.

important foodgrains in India. Although MSP is operational for both wheat and paddy, the choice of paddy over wheat is motivated by the fact that its production is well spread over the eastern, western and southern parts of the country. The proportion of small and marginal farmers engaged in paddy cultivation is also higher than that of wheat. Moreover, drawing from the theoretical literature referred to above, paddy makes a more interesting case for the study.

3.1 Data

All data used in this study are from secondary sources. We study the wholesale market (*mandi*) price⁴ of paddy for the period from 2003 to 2016. Data on the daily prices reported at these mandis are available from Directorate of Marketing & Inspection (DMI), Government of India (GoI) (<http://agmarknet.gov.in>). This agriculture e-governance portal (AGMARKNET) developed by the Ministry of Agriculture (MoA) covers about 7000 *mandis* of India. Additionally, data on MSP and procurement levels of paddy are obtained respectively from the publications of Ministry of Agriculture and Farmer Welfare and the Food Corporation of India (FCI), Ministry of Food and Public Distribution, GoI.

3.2 Analytical Concepts and Quantitative Tools

The aim of this study is to first understand how paddy prices differ across India, and then to investigate whether access to procurement facilities (or the lack of it) influences price realizations in specific locations. We initiate the analysis from an aggregated all-India level and then take it down to the level of States. Simple statistical tools like median and standard deviations at disaggregated levels provide rich information on the nature of differences. To get an idea of how low the lowest prices are, the concept of ‘price deficiency’ is explored. Of late, this term is increasingly being discussed in policy circles. Put simply, ‘price deficiency’ relates to the difference between the realised price and some reference price. The reference price can be indicative of the cost of cultivation. If the realised price is below it, the price received will not be remunerative. Here, we take the declared MSP as the reference price.

Tools used in poverty-gap analysis like ‘Average Income shortfall’ (AIS) and the Foster-Greer-Thorbecke (FGT) Index can be useful to estimate the price deficiency. Adapting from the AIS, an Average Price Deficiency (APD) measure is defined as follows:

$$APD = \frac{\sum_{i=1}^N (MSP - P_i)}{N}$$

Where, N : Number of below-MSP observations in State

P : Price reported

The higher the APD of a State, the larger is the average gap between MSP and realised below MSP prices.

⁴In India, as per the Agricultural Produce Market Committee (APMC) Act, trade in agricultural commodities can only take place through APMC mandis. Hence, this is where farmers sell their produce to traders.

4. Findings and Discussion

This section is divided into two sub-sections. The first presents an empirical picture of the price received by paddy across India. We compare price with the MSP and calculate a measure of price deficiency, wherever relevant. The second sub-section tries to relate the larger social-economic picture with the differences in procurement across regions. The implications of this are also discussed.

4.1. Paddy prices across India: Where are the prices low?

To begin with, Figure 1 plots the median, mean and standard deviation (SD) of reported paddy prices (both nominal and real) across India for each year (excluding the ‘very high prices’⁵). The median of the nominal price registers a steep increase post 2007. Even in case of the real price (deflated by the respective month’s WPI for rice), a change in the level is seen from 2008, with two small dips in 2010 and 2014.

The declared MSP for respective years is also plotted in Figure 1. We find that although the mean of reported nominal prices remains above the MSP in most years, the median has rarely been above it. This observation raises concern as whenever the median is below MSP, more than half of the realized prices across the country will have fallen below the stipulated ‘floor price’. In all years, across India, more than 30 per cent of the prices reported have remained below MSP. This proportion is particularly high in the years after 2007, which surprisingly is seen as a period of ‘higher prices’. In fact, from 2011 to 2013, even the mean of the reported prices is below MSP. However, the prices have not been low everywhere. The dispersion in the data, measured by the SD, tells us how individual prices differ from the median price. We see a very large spread in prices with the dispersion being substantially high post 2007 (the calculated SD remains mostly above 200 units post 2008). Such high SD in the prices is the first pointer towards the presence of large spatial differences in price across India. On converting to logarithms, the average SD of all years is found to be 0.196, which is quite large even after considering differences in transportation and transaction costs⁶.

Here it is important to ask: where are the prices low? Figure 2 provides a State-wise picture by presenting the proportion of below-MSP observations (daily prices) in total reported observations for the different States. Except for NCT of Delhi, Kerala, Manipur, Punjab and Haryana, in all the other States more than 30 per cent of the reported prices are below MSP in most of the years. Orissa, Chhattisgarh, Jharkhand, Telangana, Uttar Pradesh, West Bengal, Assam and Pondicherry have more than 70 per cent of reported prices below the MSP in most years.

⁵ On investigating the distribution of paddy prices, an abnormally high jump is seen from the 99th percentile to the next in all the years under study. These can be regarded as ‘Very High Priced’ (VHP). They may either represent very superior quality paddy or include some data entry errors during the initial years (2003-2005). As these observations will unduly affect the analysis of dispersion, we exclude them in the current analysis.

⁶ Chatterjee and Kapur (2016) find a similar figure for the SD of log of real wholesale prices of wheat and corn. They point to the fact that this figure is much higher than that for Philippines, which Allen (2014) finds to be 0.15. Philippines, being formed by group of islands, is expected to have high transport and information costs and therefore high spatial differences.

The immediate question that comes to mind is: how far below the MSP are these ‘below-MSP’ prices? The larger the gap, the worse off will be the farmers who sell at these prices. In States where prices have repeatedly fallen below the MSP, we calculate

Figure 1: Median price of different paddy varieties in India from 2003-2016

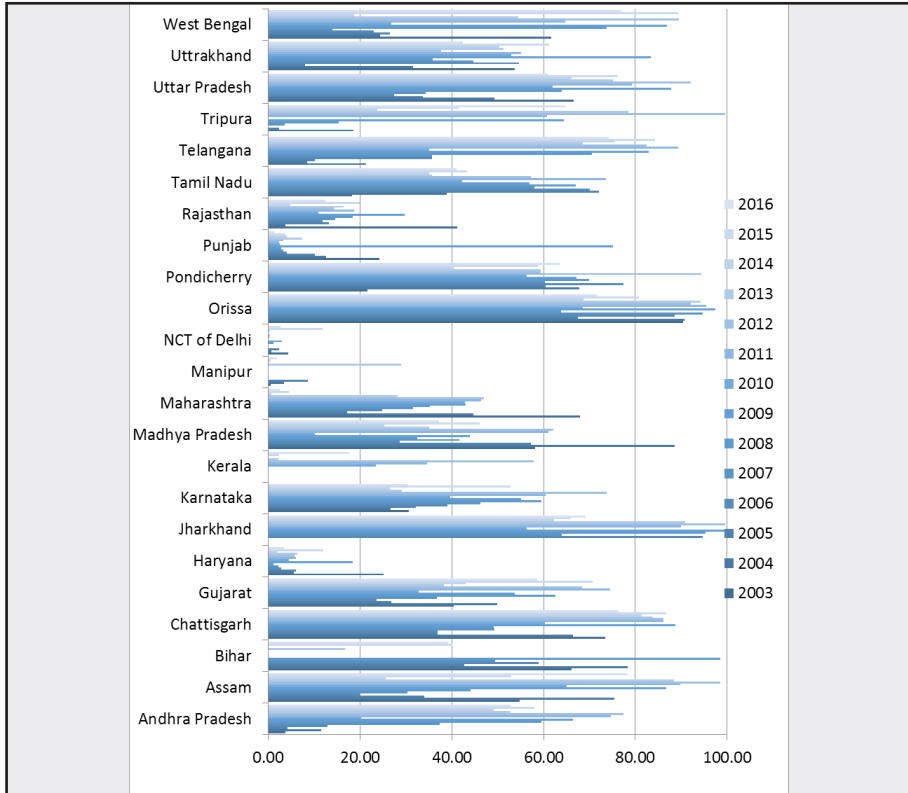
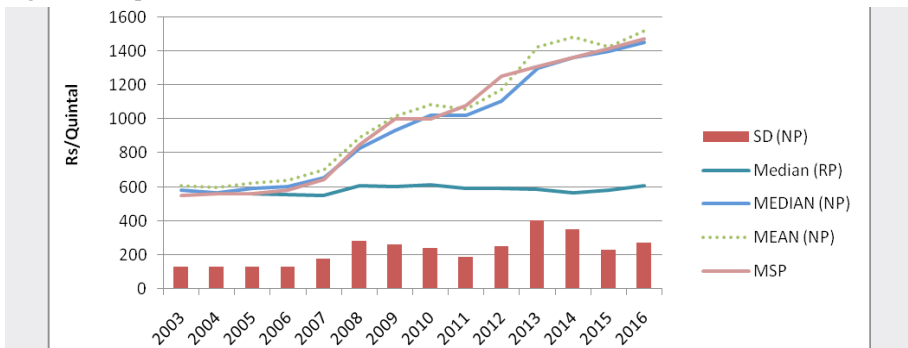
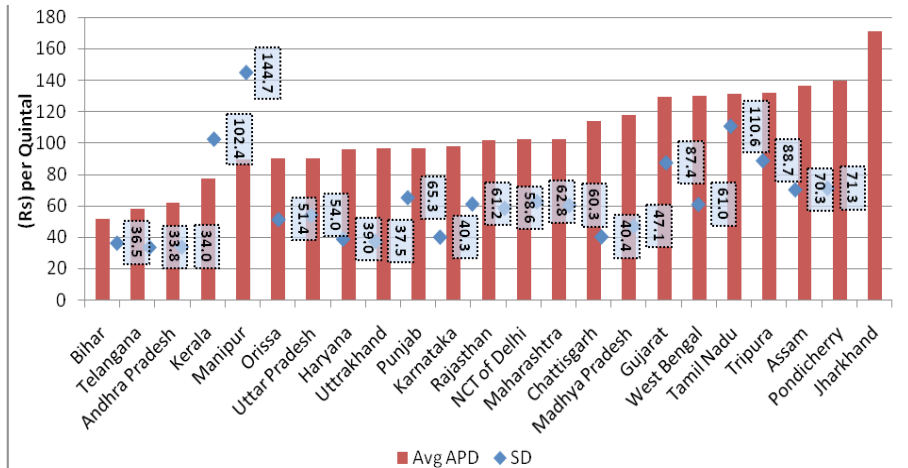


Figure 2: Proportion of Below-MSP Prices across States of India from 2003 – 2016



Source: Author’s calculations using data from DMI, GoI.

Figure 3: Average Price Deficiency (APD) in Below-MSP Prices across States of India averaged over the period from 2005 to 2016



Source: Author’s calculations using data from DMI, GoI.

a measure of the ‘price-deficiency’ (i.e. gap between the MSP and the reported below-MSP prices). The higher the APD in a State, the larger is the average gap between MSP and realised below MSP prices. Figure3 presents the state-wise ADP averaged out for the years from 2005 to 2016⁷.

The figure provides clear evidence of high price-deficiencies in most States. In as many as ten States, the below-MSP prices have, on an average, fallen short by more than Rs 100 per quintal. Here too Jharkhand, Pondicherry, Assam, and West Bengal come out among those having the largest deficiencies. Some of the other States reporting very high price deficiency are Tripura, Gujarat and Madhya Pradesh. Thus, it is quite apparent that MSP has not acted as an effective ‘floor’ to paddy prices in many States.

4.2. Linking the inequalities: land, procurement and realized prices

The discussion in section 4.1 brought forth the fact that even if an MSP is announced; it does not ensure that a farmer in India will receive, at least, an equivalent price on their produce. Simple reasoning will tell us that MSP can act as a floor only when farmers are able to sell their produce to a procurement agency whenever prices fall low in the open market. Table1 and Figure 4 give us a picture of how procurement levels differ substantially across India. Uttarakhand, Punjab, Telangana, Chhattisgarh and Orissa have reported high to average proportions of paddy procurement out of total production. Gujarat, Jharkhand, Assam, Karnataka, Maharashtra, West Bengal and Uttar Pradesh are some of the Sates reporting very low procurement levels in all years. The latter set of States has also been found to have some of the highest magnitudes of ‘price deficiencies’. Thus, a link between procurement levels and price support benefits become apparent but a crude level.

⁷The initial two years are excluded in the calculation due to inconsistent data reporting in several States.

Table1: Proportion of Paddy Production procured in States 2013-14 to 2015-16

State/ Union Territory	2013-14	2014-15	2015-16	Average
				(GM of 3 years)
Uttrakhand	80.10	76.99	94.92	83.65
Punjab	71.94	70.10	79.08	73.61
Kerala	70.53	66.55	68.46	68.49
Telangana		78.90	53.38	64.90
Haryana	60.18	50.30	69.02	59.34
Chhattisgarh	63.88	54.14	56.48	58.02
Odhisa	36.78	40.46	57.32	44.02
Andhra Pradesh	29.38	49.71	57.76	43.85
Madhya Pradesh	36.73	22.26	23.72	26.87
Bihar	17.11	25.39	18.88	20.17
Tamil Nadu	12.79	18.35	14.92	15.18
Uttar Pradesh	7.70	13.95	23.26	13.57
West Bengal	8.84	13.84	9.96	10.68
J&K		1.16	49.52	7.58
Maharashtra	5.16	6.75	8.76	6.73
Karnataka		2.49	2.00	2.23
Assam		0.29	0.82	0.48
Jharkhand			0.24	0.24
Gujrat			0.06	0.06

Source: Department of Food and Public Distribution, Ministry of Consumer Affairs, Food and Public Distribution, Government of India. <http://dfpd.nic.in/procurement-figures.htm>

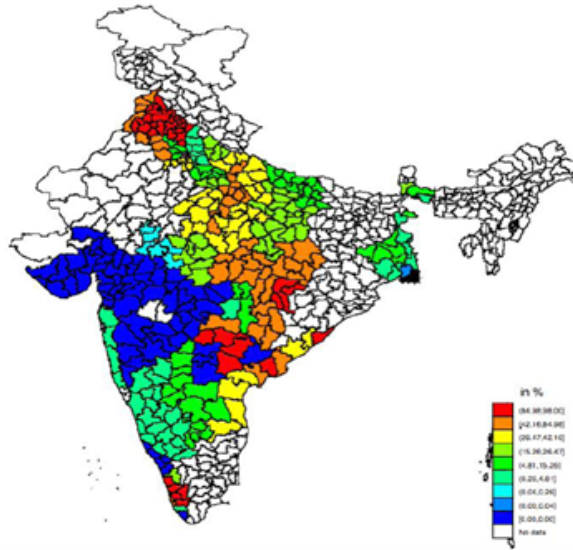
Figure 4 shows average paddy procurements at the district level for the period from 2005-2014. Red, orange and yellow shaded districts have high procurement, while the blue shaded ones have the least. The white ones are those for which data was not available. The figure shows that procurement levels are uneven even within the States. UP, Andhra Pradesh, Telangana and Kerala report a lot of inter-district differences in paddy procurement levels. Punjab, Chhattisgarh, WB, Karnataka and Maharashtra, on the other hand show relatively even levels of procurement within them, with the first two reporting high fractions of paddy procurement, the next two relatively lower, while Maharashtra shows the lowest.

To get a more detailed picture of differences in realized mandi prices, we identify the most reported varieties of paddy from a few important markets of Chhattisgarh, Jharkhand, Orissa, West Bengal, Punjab and Telangana. The monthly average of the nominal modal price in these mandis plotted in Figure5 in separate panels for each State. The MSP is also plotted for reference. In States with relatively better procurement (Punjab, Chhattisgarh, Telangana, Orissa) the lowest prices have remained around the MSP. In fact, several varieties have reported prices much above the MSP in Punjab and

Chhattisgarh. On the other hand, Jharkhand and West Bengal has reported sharp price drops of large from the MSP-level. These States are also those with some of the low procurement levels, even when their production volumes are among the highest in the country in absolute terms.

Figure 4: Disparities in Paddy Procurement across districts of India

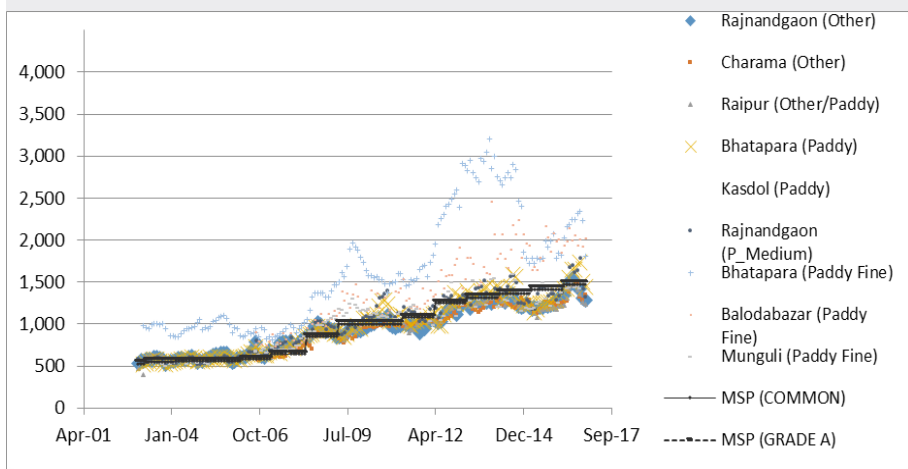
Average Fraction of Paddy Production procured 2005-2014



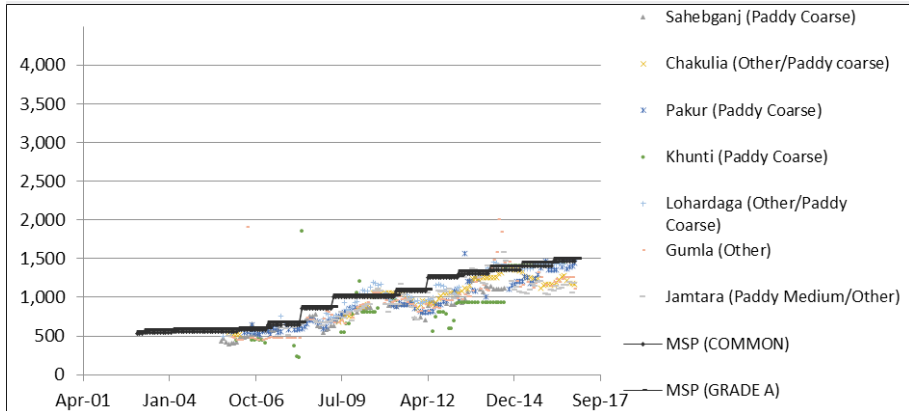
Source: Reproduced from Chatterjee and Kapur's (2016) work conducted using FCI data.

Figure 5: Nominal Price of Paddy in mandis of selected States and MSP from 2003-16 (Rs/ Quintal)

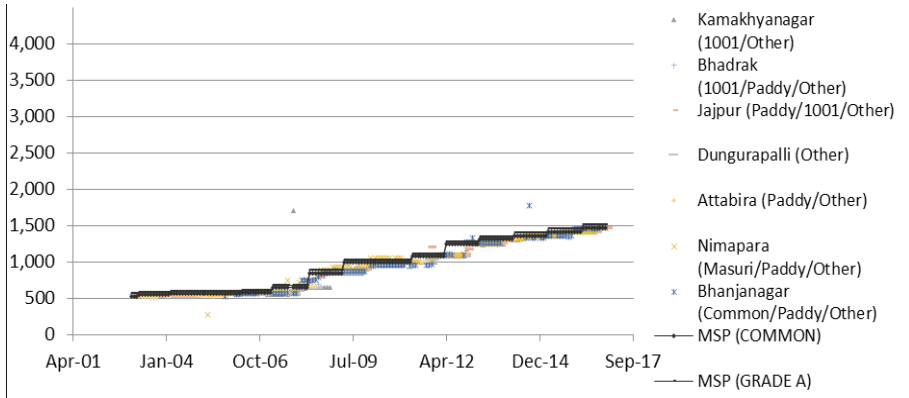
Chhattisgarh



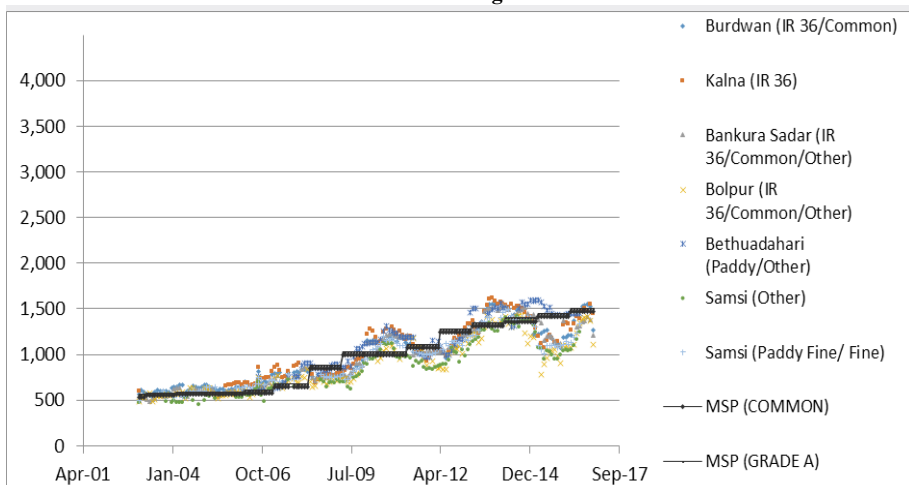
Jharkhand

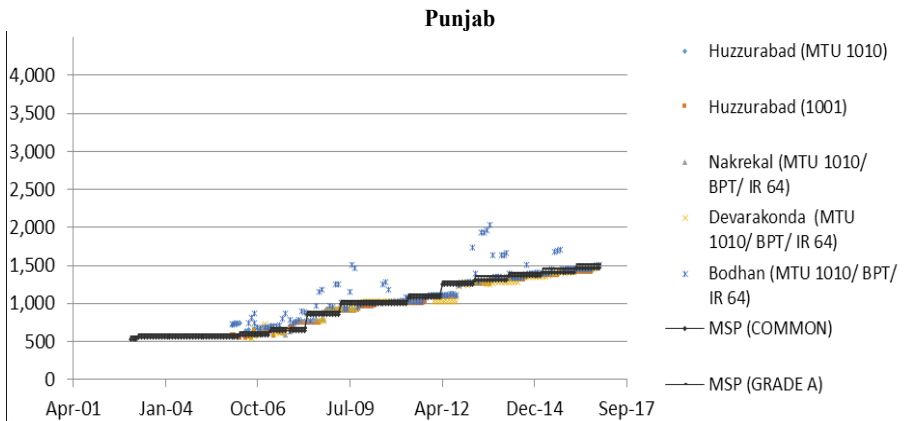
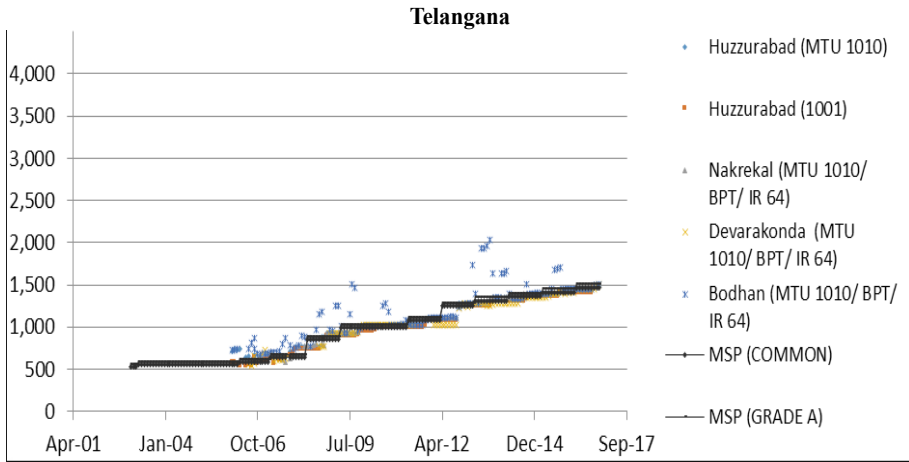


Orissa



West Bengal





These findings become important if we recognize the fact that the low procurement regions are also those which score relatively lower on economic indicators of development. When procurement bias makes some other regions better-off in terms of price support, these existing inequalities will worsen.

Now, why is procurement low in some regions? Let us evaluate the existing possibilities:

Case A: The *mandi* price usually remains above the declared MSP, thus negating the need to sell to procurement agencies.

Case B: Even when the *mandi* price falls below MSP, farmers do not (cannot) sell to procurement agencies because:

1. Their produce do not qualify the quality norms for procurement
2. There are no procurement agencies present in their region
3. They are not aware of the MSP (and procurement) scheme

The examination of mandi level paddy prices conducted in Section 4.1 clearly shows that Case A is not relevant in low procurement States like Jharkhand, Assam, WB and Karnataka. Thus, Case B has to hold here. The most relevant question therefore is: why does Case B hold? Drawing from the theoretical framework of Kaleki(1971) and Mitra(1977), we look into some operational land holding statistics in the States with low, high and uneven procurement levels. The aim is to draw inferences about the extent of class inequalities in these States. The findings are reported in Table 2.

Table 2: Indicators of landholding distribution in some paddy-producing States of India

State	Procurement level (procurement as share of production)	Inequality in land ownership (GiniCoeff.)	Average size of operation- al holdings*			Average size of leased-in holding *
			(in hectares)			
			2013 to 2015	2013	1992	2003
West Bengal	Low	Low	Low			Low
	(8-13%)	(0.2)	0.52	0.314	0.186	(0.2)
Uttar Pradesh	Low	Average	Average			Low
	(7-23%)	(0.4)	0.87	0.643	0.51	(0.3)
Jharkhand	Low	Average	Low			Low
	(20-25%)	(0.35)		0.588	0.495	(0.18)
Andhra Pradesh	Average	Average	Average			High
	(30-58%)	(0.5)	0.88	0.724	0.583	(0.7)
Orissa	Average	Average	Above average			Medium
	(35-58%)	(0.3)	0.86	0.534	0.86	(0.403)
Chhattisgarh	Above Average	Average				Medium
	(50-65%)	(0.4)				(0.54)
Punjab	High	High	High			High
	(70-80%)	(0.6)	1.17	0.878	0.679	(above 1)
Haryana	High	High	High			High
	(50-70%)	(0.6)	1.46	0.917	0.772	(1)
Kerala	High	Average	Low			Low
	(65-70%)	(0.3)	0.33	0.246	0.23	(0.1)
Telangana	High	Average	Above average			High
	(50-80%)	(0.44)			0.752	(0.7)

Source: Compiled from various publications of the Food Corporation of India (FCI) and the NSSO 70th Round Reports.

If we relate the figures in Table 2 to the differences in paddy procurement reported previously, we observe that it is the States with higher inequalities in land ownership pattern (Punjab, Haryana, Telangana) that have higher procurement levels, while States with apparently lower inequality (WB, Jharkhand and UP) have lower procurement. This observation can be linked up to the possibility of differences in relative bargaining

strengths of the farmer classes across regions differing in terms of land relations.

5. Conclusion

The aim of this work has been to assess the effectiveness of one of India's most important agricultural policies – the scheme of MSP to provide a floor to the price farmers receive. What we find is that since the access to MSP is contingent on the availability of state procurement agencies, the benefit from MSP remains limited to just a few regions. More importantly, the availability of procurement facilities across the country shows apparent associations with the nature of class inequalities in regions. The analysis of the data shows that in states like Punjab, Haryana, Telangana and Chhattisgarh prices mostly remain above the stipulated floor. Even when they fall, they do not fall much below the MSP. These States also have more of the high priced varieties in their markets, and the prices commanded by the most important varieties are also higher than those commanded in WB and Jharkhand. The fact that prices often fall below the MSP in markets where procurement is low is a serious issue. MSP is announced taking cost of cultivation into account. Thus, farmers trading at prices below the MSP could actually be engaging in 'distress sale', which does not even cover the cost of cultivation.

The findings of this paper thus present a worrying phenomenon. We find that although MSP is intended to provide a floor to paddy prices across India, it has only been effective in doing so in regions already marked by high inequality. These are also regions that are already better-off in terms of agricultural performance. Thus, the state of inter-regional inequalities is bound to worsen over time. In a State like Punjab, cultivation is concentrated mostly in the hands of relatively larger farmers. Even within Punjab, the higher prices in mandis may not benefit the small and marginal farmers because most of them do not come to the market to sell. APMC mandis are often located far from villages (where farms are located) and hence it is difficult (and often not viable) for the SMFs to bring their produce to these mandis. As a result, larger farmers often act as middlemen against some commission. If the gap between Farm Harvest Prices and mandi prices is large, the findings of this study indicate that class inequalities within Punjab itself would only worsen over time. These are avenues for further research.

The present government's response to farmer distress has been overtly in terms of raising the MSP. A higher MSP would make no sense unless there is proper procurement facility available to farmers in States like UP, West Bengal, Assam and others. It needs to be noted here that there are many factors that may lead to low procurement in a specific location. These include, inter alia, climatic conditions and moisture content of commodities. But if these factors are favourable, the government should take steps to improve the institutional arrangements, provide basic infrastructure and take steps to reduce problems of asymmetric information among the farmers. Unless the procurement of paddy (and for that matter, all other crops) is made more even across India, the over-reliance on the policy of support prices is only going to worsen both inter-regional and intra-regional inequalities.

References

- Bathla, S. (2012). Volatility in Agriculture Commodity Prices in India: Impact and Macroeconomic and Sector-Specific Policy Responses, *Price Volatility and Farm Income Stabilisation: Modelling Outcomes and Assessing Market and Policy Based Responses*, Dublin: European Association of Agricultural Economists.
- Chatterjee, S., & Kapur, D. (2016). *Understanding Price Variation in Agricultural Commodities in India: MSP, Government Procurement, and Agricultural Markets*, New Delhi: NCAER India Policy Forum.
- GoI (2012). *State of Indian Agriculture 2011-12*, New Delhi: Ministry of Agriculture and Farmer Welfare, Government of India,
- GoI. (2015). Raising Agricultural Productivity and Making Farming Remunerative for Farmers. *Occasional Paper, NITI Aayog*, New Delhi: Government of India.
- GoI. (2016). *State of Indian Agriculture 2015-16*, New Delhi: Ministry of Agriculture and Farmer Welfare, Government of India.
- Kalecki, M. (1971). Class Struggle and the Distribution of National Income, *Kyklos*, 24(1), pp. 1-9.
- Lewis, A. (1954). Economic development with unlimited supplies of labor. *The Manchester School*, 22, 139– 191.
- Lipton, M. (1977). *Why poor people stay poor : a study of urban bias in world development*. Temple Smith.
- Mitra, A. (1977). *Terms of Trade and Class Relations*, London: Frank Cass.
- NSSO. (2014). *Key Indicators of Situation Assessment of Agricultural Households*, New Delhi: National Sample Survey Organisation, Ministry of Statistics and Programme Implementation.
- Patnaik, U. (2003). Global Capitalism, Deflation and Agrarian Crisis in Developing Countries. *Social Policy and Development Programme Paper Number 15*. United Nations Research Institute for Social Development.
- Prebisch, R. (1950). *The Economic Development of Latin America and Its Principal Problems*. Lake Success, New York: Economic Commission for Latin America, United Nations.
- Rao, V. K. (1980). Review Article: Urban Bias and Rural Development. *Indian Economic Review*, 15(1), 75-83.
- Ray, D (1998). *Development Economics*, Princeton NJ: Princeton University Press.
- Singer, H. W. (1950). The Distribution of Gains Between Investing and Borrowing Countries. *American Economic Review*, 40(2), 473-485

Manuscript received 09 October, 2018 ; final version accepted 04 December, 2019.