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CROSSING THE RUBICON

Towards A Pareto Efficient Indian Agricultural Market - with specific focus on rice and wheat markets

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Contents

Disclaimer and Acknowledgement

The views expressed in this paper are those of the author and do not necessarily reflect the views of the Ministry of Finance or the Government of India. Comments may be sent to anandi.s@nic.in, a_workin@yahoo.co.in.

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Executive Summary

The Indian agricultural sector, in recent years, has been confronted with a trilemma: Record production of cereals (mainly rice and wheat); high stocks of cereals; and high inflation in cereals, juxtaposed with farmers not getting even the MSP in some areas. During early 1990s, India, eerily, faced a similar situation. The common thread that runs through this trilemma is the expansive government intervention in pricing, production, procurement and marketing of agricultural produce.

The farmer persists in growing rice and wheat, as there is an assured price in the form of MSP and state announced bonuses. The production basket is thus skewed against other much-needed crops like pulses and oilseeds, as well as commercial production of fruits and vegetables; thus leading to food inflation.

The MSP effectively becomes the baseline market price. In periods of glut, market prices tend to fall; these are propped up by state procurement, chiefly of rice and wheat, at MSP. With the open-ended procurement policy of the government, the farmer has a guaranteed market for rice and wheat. Hikes in MSP pump additional funds into the countryside, which with no proportionate increases in productivity, adds to inflation. Further, the government saddled with huge stocks of rice and wheat, leads to lower supplies in the open market, and thereby to inflation in rice and wheat.

In addition, the widening gap between the economic cost of procuring these cereals and their issue price has led to leakages and added to inflationary pressures.

The absence of a long term, stable trade policy has also contributed to the dysfunctional agricultural market as well as to inflation.

The paper examines the policies of the central as well as state governments with respect to the agricultural market, specifically in rice and wheat markets, analyses their shortcomings and argues for a national market in agriculture. In the present scenario of bulging foodgrains stocks, rising food prices and changing consumption patterns, the paper argues that these interventions are misplaced and create market distortions that also raise WTO compliance issues. It explores the steps to be taken that would enable the Indian agricultural market to asymptotically approach a Pareto efficient perfectly competitive market by the removal of various interventions. The cumulative impact of all suggested measures will be immense on food inflation, which would then truly reflect market fundamentals and become amenable to policy prescriptions.

I Background and Rationale

> *"Notwithstanding the bumper harvest of cereals and the stocks of foodgrains increasing from 7.39 million tonnes in March 1989 to 11.73 million tonnes in March 1990, and exceeding 17.20 million tonnes at the end of September, 1990 and 19.18 million tonnes at the end of January 1991, prices of cereals spurted at an alarming rate during September 1990 to January 1991" (*CACP 1993: 3).

After more than two decades, we are in a similar predicament. What has led to the recurrence of the problems? To understand this one has to look at the way the agricultural market functions. In economic theory, perfect competition, as a Pareto efficient allocation of economic resources, serves as a benchmark against which other market structures can be contrasted.

The agricultural market probably comes closest to exhibiting perfect competition. An important characteristic - that sellers and buyers incur zero transaction costs in making an exchange of goods - is void in agricultural markets as foodgrains and other staple crops are generally marketed through middlemen/ commission agents, located throughout the country. The cross-over from theory to practice is not smooth. In reality, therefore, most agricultural markets fall short of reaching the most efficient market organization, which is further exacerbated by specific interventions.

Governments across the world have intervened in agricultural markets for centuries with an intention to improve their efficiency, to affect distribution of gains to producers and consumers, and to ensure food security[1]. In developing countries, government intervention in the 1960s and the 1970s aimed at resolving market failures. It gave way in the 1980s to market-oriented liberalization to 'get prices right' and more recently to 'get institutions right'[2]. In India, while government intervention has prevailed on a large and pervasive scale[3] since independence hesitant steps have been taken towards market liberalization and

[1] Lundberg, M. (2004)' "Agricultural Market Reforms", in Coudouel, A. and S. Paternostro (eds.), *Analysing Distributional Impact of selected Reforms*, Chapter 4, Volume I, World Bank. Cited in NCAER 2006:6

[2] Barrett, C.B. and E. Mutambatsere (2005), "Agricultural markets in Developing Countries", Cornell University. Cited in NCAER 2006:6

[3] Chengappa (2003) gives a detailed review of institutional developments in Indian agricultural marketing.

empowering institutions."The changing realities require competition to be introduced in agricultural markets" (NCAER, 2006: 6).

Development literature acknowledges that improved agricultural market efficiency is fundamental to achieving growth and food security. "Improved agricultural market systems are important for poverty reduction: first, because agricultural growth can play a critical and unique role in pro-poor growth; second, because improved coordination and exchange are critical for agricultural growth; and third, because improved coordination and exchange are also critical for the processes by which pro-poor agricultural growth contributes to wider growth" (Dorward and Kydd, 2005: 2-3).

An agricultural marketing document of the Republic of South Africa[4] states, "The marketing function is especially critical in allowing new farmers into the main stream, for their success and sustainability will be determined more by their equitable participation in markets rather than by their increasing competence in production. There should therefore be no doubt that the creation of a prosperous and equitable agricultural sector depends on the agricultural marketing environment".

Looking at agricultural production to distribution as a continuum, this paper attempts to decipher various issues that have become a drag on the growth and viability of India's agriculture sector. Agriculture is essentially a state subject, with the centre formulating policies and legislating controls. However, the state governments are not solely responsible for many of the barriers to internal trade; in fact many barriers that led to market fragmentation were created by, or at the instance of, the Centre during the decades of strong state intervention and planning[5]. Therefore both Central and state policies are examined. In the present scenario of bulging foodgrains stocks, rising food prices and changing consumption patterns, the paper argues that these interventions are misplaced and create market distortions that also raise WTO compliance issues.

II Nature of Government Interventions in Rice and Wheat Markets

"Indian foodgrains policy can be traced back to World War II, when a series of food price control conferences were held by the colonial British administration in response to a

[4] www.daff.gov.za/docs/Policy/**agricMarketing**.htm

[5] Bagchi, Amaresh (2002), 'Enforcing the Constitution's Common Market Mandate', Economic and Political Weekly, 37(24): 2303-8. Cited in Jayasuriya and MacLaren (2008: 6)

sharp rise in foodgrains prices. The Bengal Famine of 1943 accelerated the scope of public intervention" [Ganesh-Kumar et al 2007: (ii)]. Food security has been a strategic objective of the Government of India (NCAER, 2006: 1).

Consequently, both legal and administrative forms of interventions are in use since the mid-1960s to direct production, purchase and storage of agricultural produce. These include the Essential Commodities (EC) Act, 1955, Food Grains (Procurement and Licensing) Order, 1952, and various state Agricultural Produce Marketing Acts. The instruments of administrative intervention comprise minimum support prices (MSP), input subsidies, public procurement, price stabilization through buffer stocks, public distribution system (PDS), controls on private trade (on storage and transportation), as well as controls on international trade (NCAER, 2006: 1). Restrictions on private storage under EC Act originated from the general perception that traders are speculators who, by hoarding and artificially increasing prices, make abnormal profits. As regards restrictions on the inter-state sale of agricultural commodities, a number of states (e.g. UP, West Bengal, Assam, Orissa etc.) have used entry permit, without which goods are not allowed to enter the consuming state. Many states also follow a practice of collecting tax on the entry of commercial vehicle into their jurisdiction. These are impediments to interstate trade[6]. Such restrictions along with harassment by officials, corruption and bribery, slowed the movement of grains from surplus to deficit regions, increased price variation across regions, added to cost of marketing/trading, and thus rendered domestic prices uncompetitive (NCAER, 2006: 10).

Agricultural produce have also been subjected to an ad-hoc international trade policy, which increases uncertainty and lowers India's dependability as an exporter on the global platform. Restrictions were imposed on trade of foodgrains up to the 1990s. However, partial liberalization of foodgrains trade policies was witnessed in the mid-1990s.

During the 1960s India was facing massive food shortages, necessitating huge imports. To steer the country through the crisis, the Agricultural Prices Commission (APC) (renamed as Commission for Agricultural Costs and Prices in 1985) and the Food Corporation of India (FCI) were set up in 1965. Thus the government took upon itself the task of procurement, storage and distribution, by dominating the entire marketing chain, with several self-serving controls on the private sector over both domestic and international trade (Ganesh-Kumar et al, 2007: 1).

[6] NCAER (2003), "Andhra Pradesh: Interstate Commerce and International Trade", mimeograph prepared for the World Bank, cited in NCAER (2006: 10).

Are the interventions relevant in the current scenario?

Several papers/studies have unequivocally stated that marketing of agricultural commodities in India suffers from extensive market regulation. Indian agricultural markets are inefficient due to state intervention in prices, APMC Act, EC Act, movement restrictions, lack of entry of private business firms, particularly at level of direct purchase, etc. (NCAER, 2006:16). Even the Famine Inquiry Commission Report of 1945 that looked into the causes of the Bengal famine disaster, identified the lack of spatial integration of markets as a reason, rather than shortfalls in supply per se. Despite this important conclusion, not much success has been achieved in spatial integration of markets, neither across states nor of domestic with international markets (Jayasuriya and MacLaren, 2008: 2). "The dominance of the government, armed with a whole host of self-serving regulations and preferential access to credit and rail transport services, in the supply chain has inhibited private sector participation in grain management in the state, even though available evidence points to cost-efficiency of the latter" (Ganesh-Kumar, 2007: v).

The National Council of Applied Economic Research (NCAER) conducted detailed case studies of select agricultural markets in several major producing states in 2005[7]. The studies covered four major crops, Paddy, Tur (Arhar), Cotton and Groundnut. The problems identified include, *inter alia*, transportation, the buying power of middlemen, the lack of market information and the lack of credit. Interviews with farmers, private and state marketing agents and government officials all indicated a growing consensus about the need for changes and marketing innovations such as the establishment of alternative marketing channels involving private markets, contract farming and futures trading.

In the initial years after independence since domestic agricultural markets were fragmented and under developed, a centralized approach helped in providing a broad policy direction. Government interventions were thus needed not only to help farmers but also to shield consumers from high prices as it was also a period of shortages; the Bengal famine is a case in point. However in recent years, state policies, by leading to complete state takeover of foodgrain trade and choking the emergence of a competitive and healthy market structure, are proving to be market distorters in the agricultural sector.

It is incongruous that even after five decades, and despite record production of food grains, the predominant objectives of Indian agricultural policy remain achieving self-

[7] Cited in Jayasuriya and MacLaren (2008: 8).

sufficiency in food and food security. The approach paper to the Twelfth Plan states, "In the backdrop of the price trends in the international food markets, it would be prudent to plan not only for self-sufficiency in basic food production, but also to maintain a surplus" (GOI, 2011a: 79). Given the food-centric approach, agricultural policy has focused more on rice and wheat. Consequently, with the passing of the National Food Security Act (NFSA), 2013 the continuance of these interventions is implied.

Interventions in the areas of production, procurement, and distribution have distorted the competitive functioning of agricultural, specifically foodgrain markets, which reduce the efficiency of market outcomes. It is an anomaly that the policy of economic reforms and liberalization that was started in the 1990s did not give due priority to the opening up of the domestic agricultural sector and removing the barriers to trade. Liberalization of this sector was initiated a decade later, when the Centre made concerted efforts towards achieving the goal of creating of a single common market for agricultural commodities, by removing restrictions on storage, movement etc., in respect of specified foodstuffs and opening up all major agricultural commodities to futures trading. However, the problem of intermittent surges in food prices has also persisted in India despite reforms measures undertaken.

III Current status of policies and their impact

This section examines the current status of government interventions in the areas of production, procurement, storage and distribution of rice and wheat [since these are the major commodities that are supplied through the Public Distribution System (PDS)]; and compares the market competitiveness of policies adopted by 19 state governments, namely, Andhra Pradesh (AP), Assam, Bihar, Chhattisgarh, Gujarat, Haryana, Himachal Pradesh (HP), Jharkhand, Karnataka, Kerala, Madhya Pradesh (MP), Maharashtra, Odisha, Punjab, Rajasthan, Tamil Nadu (TN), Uttar Pradesh (UP), Uttarakhand and West Bengal, that cover more than 95% of rice and wheat production in the country. The extant policies (in 2012-13[8]) in paddy/rice and wheat markets are studied with respect to 4 parameters:

(i) Taxes/cesses (as percent of MSP) charged by states under the APMC Act;

(ii) MSP and bonus declared by the Centre and additional bonus announced by states;

(iii) Stock limits fixed by states under the EC Act;

(iv) Levy rice imposed by states under EC Act.

[8] At the time of writing this paper, although RMS 2013-14 was complete, KMS 2013-14 was still continuing; hence data for 2012-13 has been taken.

Since all the major policies (except levy rice) have seen increases/changes since the year 2006-07, outcomes are analyzed from 2007-08. Thus the state-wise outcomes are evaluated on the basis of: (a) percentage change in production of rice and wheat in 2012-13 over 2007-08; and (b) percentage change in procurement of rice and wheat in 2012-13 over 2007-08. The impact of these policies is measured by (i) rice/wheat procured as percentage of rice/wheat production, (ii) ratio of total procurement to storage capacity; (iii) ratio of trend of total procurement to offtake. Sources of data are Department of Agriculture & Cooperation (DAC), Food Corporation of India (FCI), Department of Food and Public Distribution (DFPD), Department of Consumer Affairs (DCA), Office of the Economic Adviser, Department of Industrial Policy and Promotion (O/o EA, DIPP), Department of Commerce.

A Policies that impact on Production

An administered pricing mechanism, along with public distribution of foodgrains (mainly rice and wheat), were adopted by the centre to enhance domestic foodgrains availability in the 1960s.

(i) MSP announced by Centre

The MSP mechanism was aimed to act as insurance for the farmer against market crashes and also to turn agriculture into a remunerative activity so that farmers are incentivized to adopt modern technologies and better farming practices, raising productivity and overall production. The CACP recommends MSPs for certain agricultural commodities on a pan India basis[9], which are announced, after due consultations, by the government.

In early seventies procurement prices were announced before the harvest season, along with MSPs; these prices were higher than the corresponding MSPs but lower than the market prices. The public procurement agencies would buy at procurement prices while the price guarantees were at MSPs (Chadha, 2008: 217). The CACP Report (1993: 8) observed that "during the eighties, except in years of severe drought, purchase was made by the public sector agencies with a view to providing support to the farmer rather than as an act of procurement and is likely to continue in the nineties. This happened as production of cereals was rising at a faster rate than population and a large part of incremental output was emerging

[9] MSP is recommended for 24 crops. This is based on economic criteria such as demand and supply situation, trends in domestic and international market prices, cost of production, inter-crop price parity, terms of trade between agriculture and non-agriculture sectors, trade policy in agriculture, effect on general price level, and so on. For details see www.cacp.dacnet.nic.in.

from the surplus producing areas". It therefore, recommended that from the 1991-92 season, only the MSP would be announced. Thus, the MSP was taken as the procurement price.

Though a balance between producer and consumer interests was historically maintained, MSPs of rice and wheat turned pro-farmer during the second half of the 1990s when substantial hikes were announced, which were out of sync with domestic markets (NCAER, 2006: 11). During the past few years, this trend has continued and MSPs of different crops have been raised substantially; simultaneously food inflation has also escalated. While the causality is debatable, a comparison of the MSPs of major food crops[10] and food inflation prevailing during two periods Period I (2000-01 to 2006-07) and Period II (2007-08 to 2013-14) [11] yields interesting results. Food inflation was more than 5 per cent in 20 of the 84 months of Period I, with a maximum of 9.82 per cent in December 2006. In contrast it was more than 5 per cent in 76 of the 84 months in Period II; and more than 10 per cent in 30 of the 76 months, with a peak of 20.22 in February 2010. Significantly, during Period I, the increase in MSPs of major food crops was between 12 per cent (wheat) and 56 per cent (Rapeseed/mustard); while in Period II the hike in MSPs ranged from 59 per cent (wheat) to 175 per cent (soya bean). While other non-MSP crops as well as the presence of other market interventions have also contributed to inflation, the direct relationship between MSP and market prices, especially of foodgrains, cannot be ignored. Since the MSP is uni-directional upwards, it is to that extent not fully aligned to market fundamentals. In rare instances, MSPs have been kept constant during periods of declining prices.

Any increase in MSP directly impacts on the price level as it sets the floor price for the commodity in question. However, in some states where procurement is not effective, market prices often fall below MSP, thus rendering the MSP mechanism redundant. This merging of MSP with procurement price has diverted the MSP mechanism from its fundamental goal. It is important to keep the distinction between MSP and market price; the former is an instrument that provides basic insurance to the farmer, while the latter is the income source for the farmer. MSP is thus not a proxy for income; this needs to be highlighted given that most states seek higher MSP on the basis of rising costs[12]. These issues lead us to question the economic utility of continuing with the extant MSP policy.

[10] Major food crops include paddy, wheat, jowar, maize, tur, moong, urad, gram, groundnut, soyabean, rapeseed/mustard.

[11] Period considered is from March to February of each year.

[12] The Swaminathan Committee had recommended a cost-plus pricing policy – that is, fixation of MSP at least 50% higher than the weighted average cost of production.

(ii) Additional bonus over MSP announced by Centre & States

While MSP mechanism itself is market distorting, the practice of giving additional bonuses has been in vogue for some time. Initially only the central government announced additional bonus over and above the MSP. These bonuses ranged between Rs 10 to Rs 100 per quintal on paddy and wheat. In recent years, state governments also started announcing bonuses on top of the bonus announced by the Centre. For instance, in 2008-09, when the Centre fixed the MSP of paddy at Rs 850 per quintal and announced a bonus of Rs 50 per qtl over the MSP, Chhattisgarh government declared an additional bonus of Rs 220/qtl for paddy (the bonuses thus totaled Rs 270/qtl and were 32 per cent of the MSP of paddy). Madhya Pradesh (MP) and Tamil Nadu started giving bonuses for wheat and paddy respectively from 2007-08. Table 1 shows the quantum of bonuses announced by different state governments in the last five years.

Table 1: MSP and bonus for paddy and wheat in the last five years (Rs/qtl)

Sl.no	Crop Year	2009-10		2010-11		2011-12		2012-13		2013-14	
		Paddy	Wheat	Paddy	Wheat	Paddy	Wheat	Paddy	Wheat	Paddy	Wheat
	MSP	**1000**	**1080**	**1000**	**1100**	**1080**	**1120**	**1250**	**1285**	**1310**	**1400**
	Central Bonus	**50**					**50#**				
1	A.P.	50	-	-	-	-	-	-	-	-	-
2	Bihar	50	-	-	-	-	-	-	-	-	-
3	Chhattisgarh	50	-	50	-	50	-	270	-	300	-
4	H.P.	-	-	-	-	-	50	-	-	-	-
5	Karnataka@	-	-	100	-	250	-	250	-	290	-
6	Kerala	200	-	400	-	420	-	450	-	490	-
7	M.P.	C=50 GrA=50	50	C=50 GrA=50	100	C=50 GrA=50	100	C=100 GrA=100	100	C=150 GrA=150	150
8	Rajasthan	-	-	-	-	-	-	-	100	-	150
9	T N	C=50 GrA=70	-	C=50 GrA=70	-	C=50 GrA=70	-	C=50 GrA=70	-	C=50 GrA=70	-
10	U.P.	-	-	-	-	-	50	-	-	-	-

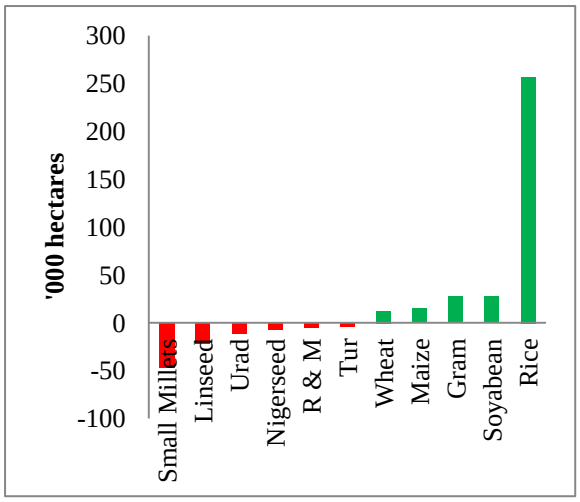
Notes: C is common variety,Gr A is Grade A variety of paddy; # - incentive bonus for wheat procurement in 2010-11; @ - Bonus is for 100 qtls per farmer up to 31.1.2011, 29.2.2012 and 31.3.2013 for crop years 2010-11, 2011-12 and 2012-13 respectively.

As evident from Table 1, some states have steadily enhanced the quantum of bonus over the years. These bonuses, which are crop specific and not crop neutral, have affected the *inter-crop parity* as the farmer is incentivized to grow a particular crop and thus *distorts the production basket*. Interestingly, although Karnataka has increased the quantum of bonus, they have been limited to 100 quintals per farmer up to 2012-13. Chhattisgarh and MP are two states that have registered remarkable growth in production of rice and wheat respectively in recent years. Charts 1 (i) and (ii) show the skewed nature of the cropping

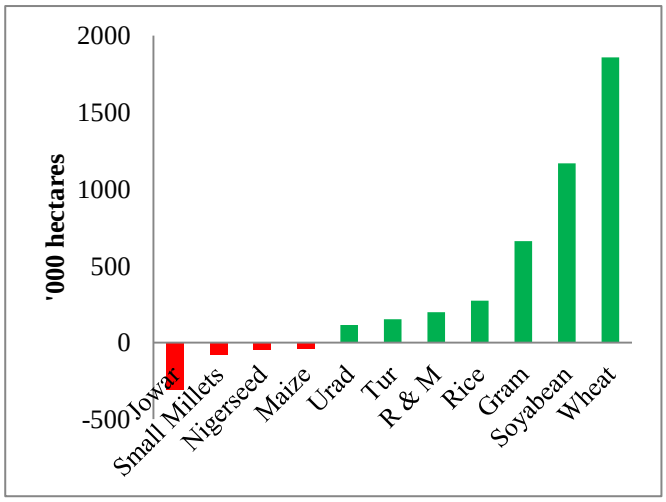
patterns in these states, which has been at the cost of other important crops such as pulses & oilseeds.

Chart 1: Absolute change in area under select crops

(i) Chhattisgarh (2013-14 over 2008-09)



(ii) MP (2013-14 over 2007-08)



Such cropping intensity has another externality: an alarming reduction in the water table. This practice is not sustainable in the long run as is evident from the problems currently being faced in Punjab and Haryana region, considered the 'rice bowl of India', where the water table is reducing drastically. This is also highlighted in the Twelfth Plan Approach Paper, "… past patterns of agricultural growth depleted soil and water resources seriously (GOI, 2011a: 68). Thus, farmers prefer to continue growing paddy and wheat, which work out to be more profitable than other competing crops in the current scenario.

While farmers do need to be incentivized, instead of MSPs and bonuses, a better option would be to use an income support policy, so that farmers respond to market signals.

B Policies that impact on -

(1) Domestic Trade

Agricultural marketing involves myriad transactions between the first seller (farmer) and the final buyer. These include purchase, transportation, processing, storage and selling. Efficient markets should facilitate to reduce the price spread (which includes taxes and statutory charges over and above intermediaries' margins) between farm gate prices and final consumer prices. However, in practice this has not been achieved as extensive government interventions have dominated almost every aspect of agriculture (NCAER, 2006: 7). Indian agricultural sector is currently stifled by various controls ranging from trade to domestic

marketing and stocking.

(iii) Essential Commodities (EC) Act

The EC Act, 1955 provides for the regulation and control of production, distribution and pricing of commodities which are declared as essential for maintaining or increasing supplies or for securing their equitable distribution and availability at fair prices. The Act is thus pro-consumer and impacts at the level of the wholesaler and retailer.

In 2002 and 2003, in order to facilitate free trade and movement of commodities, which would enable farmers to get better prices for their produce, achieve price stability and ensure availability of commodities specified in the Order at fair prices throughout the country, the Central Government, issued orders[13] *removing the licensing requirements, stock limits and movement restrictions on specified foodstuffs.* These orders allowed dealers to freely buy, stock, sell, transport, distribute, dispose, acquire, use or consume any quantity in respect of rice/paddy, wheat, coarse grains, sugar, edible oils and oilseeds[14], pulses, gur, wheat products (namely, maida, rava, suji, atta, resultant atta and bran) and hydrogenated vegetable oil or vanaspati[15]. This was also in line with the recommendation of the Standing Committee that was constituted pursuant to the conference of Chief Ministers on 'WTO and Agriculture' held in 2001.

In 2006, in the context of rise in prices of some essential commodities there was wide spread concern that there could be speculative hoarding to create artificial scarcity resulting in higher market prices, particularly of wheat and pulses and there were also representations from a few States for restoration of powers under the EC Act. Government therefore decided that the Central Orders, so far as licensing/permission regarding purchase, movement, sale, supply, distribution or storage for sale were concerned, *may be kept in abeyance*[16] *for a period of six months only initially, with respect of wheat and pulses*. This enabled State Governments to fix stock limits for these commodities and also prescribe licensing requirements, after obtaining concurrence of the Central Government. By this Order the list

[13] Removal of Licensing Requirements, Stock Limits and Movement Restrictions on Specified Foodstuffs, 2002; and Removal of Licensing Requirements, Stock Limits and Movement Restrictions on Specified Foodstuffs (Amendment) Order, 2003.

[14] These were covered under 2002 Order

[15]These were added in 2003 Order

[16] Vide Removal of (Licensing Requirement, Stock Limits and Movement Restriction on Specified Foodstuffs), Amendment Order 2006, which was notified on 29.08.2006.

of essential commodities was also pruned from over 200 products to seven generic groups that were retained to protect the interest of the vulnerable population[17].

However, since then, other commodities/groups have been added and Amendment Orders periodically notified in respect of wheat, pulses, edible oils, edible oilseeds, rice, paddy and sugar. Currently only wheat and sugar are de-notified, while recently (as of 03.07.2014) onion and potato were added to this list. Whereas 23 states/UTs have fixed stock limits on one or more commodities (of which AP, Jharkhand and Maharashtra have fixed stock limits for all the 5 commodities/groups), another four states/UTs have put only licensing/stock declaration requirements. While four states have fixed stock limits on paddy, ten states/UTs have fixed for rice. West Bengal is currently not imposing stock limits on any commodity. Even as there are no restrictions on inter-state movement and import of these commodities[18], it is observed that some state governments have at times imposed restrictions on inter-state movement of foodgrains, such as Chhattisgarh, and AP (for paddy) and Punjab (for paddy and wheat) and West Bengal (for potato).

The Governments (Central, State and UTs), by virtue of conferment of such power under section 3 of EC Act, 1955, have issued various control orders[19]. The Central Government is empowered to add, remove and modify any essential commodity in public interest in consultation with State Governments. The Act also states that, *'addition/modification of any essential commodity will depend on the scarcity or non-availability of the commodity in a situation like war, natural calamities, disruption or threat of disruption of supply of such essential commodities, which cannot be tackled through normal trade channels*.'

While the role of state was important during periods of scarcity, its continuation and extension even during years of plenty, is proving to be counterproductive. Due to its

[17] These are: (i) drugs; (ii) fertilizer, whether inorganic, organic or mixed; (iii) foodstuffs, including edible oilseeds and oils; (iv) hank yarn made wholly from cotton; (v) petroleum and petroleum products; (vi) raw jute and jute textile; and (vii) seeds of food-crops and seeds of fruit and vegetables; seeds of cattle fodder; jute seeds; and cotton seed.

[18] As para 3 of the Amendment Orders states: 'Shall not affect the transport, distribution or disposal of these commodities to places outside the State, nor shall it be applicable to import of these commodities. Central or State Governments may direct the importers to declare the receipts of stocks of these commodities, and stocks retained by them'.

[19] Such as, The Cotton Control Order, 1986; The Drugs (Prices Control) Order, 1995; the Petroleum Product (Maintenance of Production, Storage and Supply) Order 1999; The Edible Oils Packaging Order, 1998; The Sugar (Control) Order, 1966; The Seeds (Control) Order, 1983; The Fertilizer (Control) Order, 1985; The Jute (Licensing and Control) Order, 1961 etc,.

restrictive provisions, private investment in large scale storage and marketing infrastructure including in the areas of contract farming, direct marketing have been constrained (Patnaik, 2011: 11). This has also led to market inefficiency.

(iv) Levy Procurement

State Governments/UT Administrations issue levy orders in exercise of the powers delegated to them under the EC Act, 1955 after obtaining the prior concurrence of Central Government. The restrictions on sales of milled rice started under the Rice Milling Industry Act 1958. The aim was to increase procurement for government's buffer stocking and distribution through PDS. Rice millers are mandated to supply a certain proportion (levy) of processed rice to the FCI at a fixed processing margin (Ganesh-Kumar et al, 2007: 20). The percentage of rice is fixed by the state governments taking into account requirements of the Central Pool, domestic consumption and marketable surplus. The centre fixes the prices of levy rice, which are typically below the market price[20], before the Kharif Marketing Season (KMS) commences. The quantum of levy varies across states and ranges between 30 per cent and 75 per cent. In nineteen of the 23 states/Union Territories (UTs) that impose the levy it is 50 percent or more; it is 60 per cent in Uttar Pradesh (UP) and 75 per cent in AP, Haryana, Punjab, Uttarakhand and Odisha thus leaving little rice for the open market. Kerala is the only state that has no system of levy.

"The adverse effects that rice levies have on the markets are obvious: they discourage rice millers' investment, increase private traders' transactions costs, breed corruption, and create rents for special interests. Since millers are not allowed to sell in the open market until levy requirement is met and because market price is generally higher than levy price, it creates various avenues of corruption in the foodgrains marketing chain" (Ganesh-Kumar et al, 2007: 21). Further, it naturally depresses the price that paddy farmers get compared to what they might get in the absence of levy procurement of rice. The levy system also promotes inefficiency in FCI's marketing operations, as the millers retain best grade rice with them and supply inferior, broken, adulterated rice to FCI; and except at a subsidised price under PDS, such stock would otherwise not be lifted by states for their consumers. The same holds true for custom milled paddy[21] (Chand, 2003: 6).

[20] Millers have to supply processed rice at 30-40 percent lower than the market price (Ganesh-Kumar et al, 2007: 20).

[21] Refers to the arrangement whereby paddy procured by FCI is got milled from private rice mills.

This mechanism, that is reminiscent of days of shortage and rationing, is a form of market distortion that prevents competition and promotes deviant behaviour. In 2013, in accordance with the recommendations of Rangarajan Committee (2012) the sugar sector has been fully decontrolled - the levy requirement as well as the regulated monthly/fortnightly/weekly releases of non-levy sugar in the open market have been removed. Consequently, governments have to procure from the market at market prices for their PDS requirements. There is need to decontrol the levy rice requirement on similar lines.

(v) Agricultural Produce Marketing Committee (APMC) Act

Most State Governments, during the sixties and seventies introduced several mandatory regulations in agriculture marketing. The legal and administrative framework for regulation and management of agricultural produce markets vests in the provisions of APMC Acts. Under this Act, only state governments are permitted to set up markets. Once a particular area is declared as a 'market area' it falls under the jurisdiction of an APMC. These state level statutory bodies governed the storage and marketing of agricultural products in regulated markets, though their nomenclature may be different in some states (NCAER, 2006: 8).

The APMC Acts were enacted in order to free the farmer from the clutches of middlemen. However, the marketing monopoly provided to the state by the Act is seen as preventing private investments in agricultural markets and its restrictive legal provisions have prevented new entrants from coming in, thus reducing competition (Chand, 2012: 54). The status of marketing infrastructure was also found to be deficient and the main reasons for this are (i) market committees did not plough back the market fee collected into developing infrastructure and these funds in several cases were siphoned off to the government account[22] and (ii) the government monopoly in setting up agricultural markets has prevented the private sector from taking the initiative to develop marketing infrastructure[23]. Thus over the years these institutions turned out to be more revenue generating than institutions facilitating efficient marketing practices to benefit market participants.

[22] GOI (2001): Report of the Working Group on Agricultural Marketing Infrastructure, Ministry of Agriculture, New Delhi; cited in Ramesh Chand (2012: 58).

[23]Acharya, (2004): State of the Indian Farmer, A Millennium Study, Agricultural Marketing, Department of Agricultural and Cooperation, Ministry of Agriculture, and Academic Foundation, New Delhi, cited in Ramesh Chand (2012: 58).

Model Act 2003

In the context of liberalization of trade in agricultural commodities and to benefit the domestic farming community from global market access opportunities, there was a felt need to integrate and strengthen the agricultural marketing system in the country. Accordingly, the centre, in consultation with State Governments, formulated a Model Agricultural Produce Marketing (Development and Regulation) [Model APM (D&R)] Act in 2003 and circulated to the states for its adoption. The Model Act acknowledged, "monopoly of Government regulated wholesale markets has prevented development of a competitive marketing system in the country, providing no help to farmers in direct marketing, organizing retailing, smooth raw material supply to agro-processing industries and adoption of innovative marketing system and technologies" [24].

After a decade, there is still variation in adoption of the contents and coverage of reforms under the APMC Acts/Rules across the States/UTs. Up to 2012-13, 17 States (AP, Arunachal Pradesh, Assam, Goa, Gujarat, HP, Jharkhand, Karnataka, Maharashtra, Mizoram, Nagaland, Odisha, Rajasthan, Sikkim, TN[25], Tripura and Uttarakhand) have amended their State APMC Acts covering the major provisions, while Punjab, Haryana, MP and Chhattisgarh have partially reformed their APMC Acts. States like Meghalaya, J&K, West Bengal, Puducherry, UP and Delhi have not yet initiated the process of reforms. States/UTs of Kerala, Manipur, Andaman & Nicobar Islands, Dadra & Nagar Haveli, Daman & Diu, and Lakshadweep do not have APMC Acts while Bihar repealed it in 2006.

Major Issues in the Model APM (D&R) Act

The model legislation has actually given rise to a conflict of interest, as the APMC, which is a major player, is also the regulator/registering authority. There is reluctance on part of state governments to reform the APMC legislation, as it generates huge revenues. Some states have created entry barriers by prescribing either prohibitive license fees for setting up such markets, or the minimum distance between private markets and APMC markets; while Odisha has not permitted private markets for paddy/rice. Less than 10 per cent of trade is reported to take place in private mandis. The model Act prohibits commissions in any transaction of agricultural produce of the farmers; however in practice these range from 1 to 2.5 per cent in food grains and 4 to 8 per cent for fruits and vegetables across states. There

[24] http://agmarknet.nic.in/amrscheme/modelact.htm#Background

[25] Tamil Nadu's APMC Act already provides for all the reforms enlisted in the Model APM (D&R) Act, 2003.

are also wide variations in market fees – from 0.5 to 2.0 per cent of sales (GOI, 2011b: 43). The market fee and commissions add 15-20 per cent to the farm gate price. In addition, there are 5-6 intermediaries between the primary producer and the consumer. The total mark up in the chain adds upto 60-75 per cent (Patnaik, 2011: 4). These thus result in higher transaction costs and lower price realization by farmers.

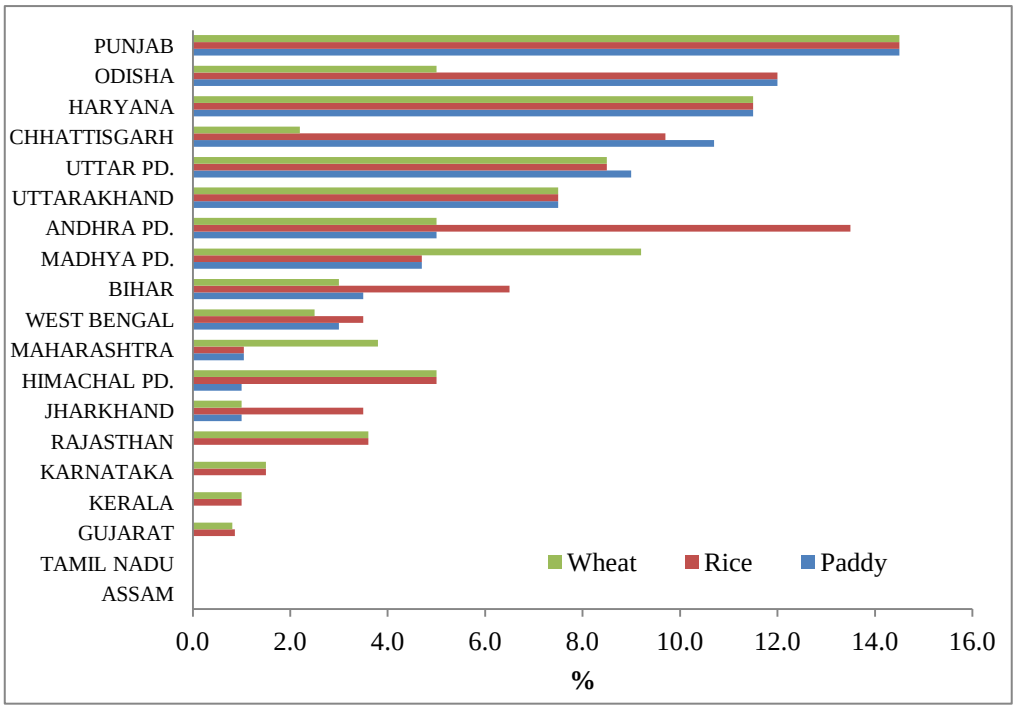
It is evident that these legal provisions have created a fragmented and monopolistic agricultural market with high entry barriers. The basic objectives for setting up a network of physical markets, namely, ensuring reasonable gain to the farmers by creating an environment of fair play of supply and demand forces, regulating market practices and achieving transparency in transactions, have not been achieved. An Empowered Committee of State Ministers in-charge of Agricultural Marketing set up under the aegis of Ministry of Agriculture in its report submitted in 2013 noted, "By and large, the APMCs have emerged as some sort of Government sponsored monopolies in supply of marketing services/ facilities, with all drawbacks and inefficiency associated with a monopoly". Thus their activities are such that they encourage activities that are clearly in violation of competition laws and prevent direct access of farmers to a sizeable segment of consumers.

However, the mere absence of APMC legislation is not a sufficient condition for the development of national market. For instance, while Bihar has freed the market of the regulatory controls of the APMC, there is the absence of alternate strong market facilitation. Consequently, its augmented production of paddy in 2012-13 (under the 'Bringing Green Revolution to Eastern India' scheme) led to paddy prices falling below MSP, increased the vulnerability of small farmers and exposed them to market risks. In this context, alternate marketing methods such as direct marketing, contract farming, etc have to be rigorously pursued for the farmers' benefit. These also improve market accessibility and have been found to be very successful in many advanced countries of the world. Notable among them is the USA, where direct marketing of farm products through farmers markets are an integral part of the urban/farm linkage and continue to be an important sales outlet for agricultural producers. Some state governments have taken initiatives and successfully adopted the concept of direct agricultural marketing, thus reducing the multiple layers of intermediation. Examples include Apni Mandi in Punjab, Uzhavar Sandhai in TN, Shetkari Bazaar in Maharashtra, Hadaspur Vegetable Market in Pune, Rythu Bazar in AP, Krushak Bazaar in Odisha and Kisan Mandi in Rajasthan. Taking a cue from their success, such initiatives that benefit both farmers and consumers have to be expanded throughout the country.

(vi) Taxes/cesses charged on sale of paddy, rice & wheat by States

Under the APMC Act, states impose differential taxes/cesses which distort agricultural markets. Statutory levies imposed by states on paddy and rice, and wheat include market fee, APMC cess, arthiya commission, dami, commission to societies/agents, mopari charges etc. During both the Rabi Marketing Season (RMS) and KMS of 2012-13, the statutory levies calculated as a percentage of MSP, varied from 0 per cent in Assam and TN to 14.5 per cent in Punjab in the case of paddy, rice and wheat. In addition to mandi tax and value added tax (VAT), cesses are also levied in most states for Infrastructure Development (ID) and Rural Development (RD), all of which have a cascading effect on prices. Chart 2 shows the range of taxes (as % of MSP) imposed by states in KMS & RMS 2012-13.

Chart 2: Taxes Levied by State Governments in KMS & RMS 2012-13 (as % of MSP)



As is evident, Punjab, Haryana, UP and Uttarakhand levy high taxes on paddy, rice and wheat; Odisha and Chhattisgarh levy high taxes on paddy and rice; AP and Bihar levy higher tax on sale of rice, while MP and Maharashtra impose higher tax on sale of wheat. While higher rates of tax yield higher revenues for states, the flip side is that it leads to higher state procurement, lower participation by private traders, and higher final price of the commodity. In 2012-13, it was reported that roller flour mills in Punjab bought wheat from UP as it was cheaper as compared to Punjab. It was reported that even after adding freight cost, local taxes and cartage, wheat cost them Rs 1,265 per quintal from UP, which was still

below the declared MSP of Rs 1285 per quintal[26]. Thus, high taxes and levies on wheat in Punjab, coupled with the weak procurement infrastructure in the eastern belt led to this piquant situation[27]. Such policies crowd out the private sector, hamper free trade and turn the state into a monopsonist.

Since revenues from the taxes/levies accrue to state governments, expectedly, they tap on this resource. Thus, AP increased its taxes/levies from 12.5 per cent in 2011-12 to 13.5 per cent in 2012-13; Odisha also increased the total taxes/cesses levied from 8.5 per cent to 12 per cent over the same period. Thus multiple taxes and differential tax regimes across states has raised artificial barriers and prevented the functioning of a competitive market. "The multiple tax regime in the form of commission charges, market fee (varies generally between 0.50% to 2.00%), octroi/ entry tax, sales tax, weighing charges, labour charges for handling, loading and unloading, though vary from state to state and commodity to commodity is estimated to be approximately more than 12 per cent of the total value of produce marketed" (GOI, 2011b: 43). Also initiatives such as establishing direct agricultural markets need to be fostered as they have proved to successfully reduce multiple layers of intermediation and thereby the transaction costs.

(vii) Rice/wheat procured by state agencies and foodgrain stocks

The Foodgrains (Licensing and Procurement) Order, 1952 prohibited any individual from engaging in any business which involved purchase, sale or storage for sale of any foodgrains except under and in accordance with a licence issued by the state governments[28]. "The government has created an entire marketing system that parallels (replaced) the private marketing system, with the FCI being the nodal implementing parastatal agency" (Ganesh-Kumar et al, 2007: 60). However, the state procurement system is successful only for rice and wheat and that too only in a few states, such as Punjab, Haryana, AP, MP and Chhattisgarh.

The hikes in MSPs/bonuses have resulted in higher production. Given the open ended procurement policy, the procurement agencies are then obliged to buy all the rice and wheat that the farmers offer, at the MSP subject to the commodities meeting some 'fair average

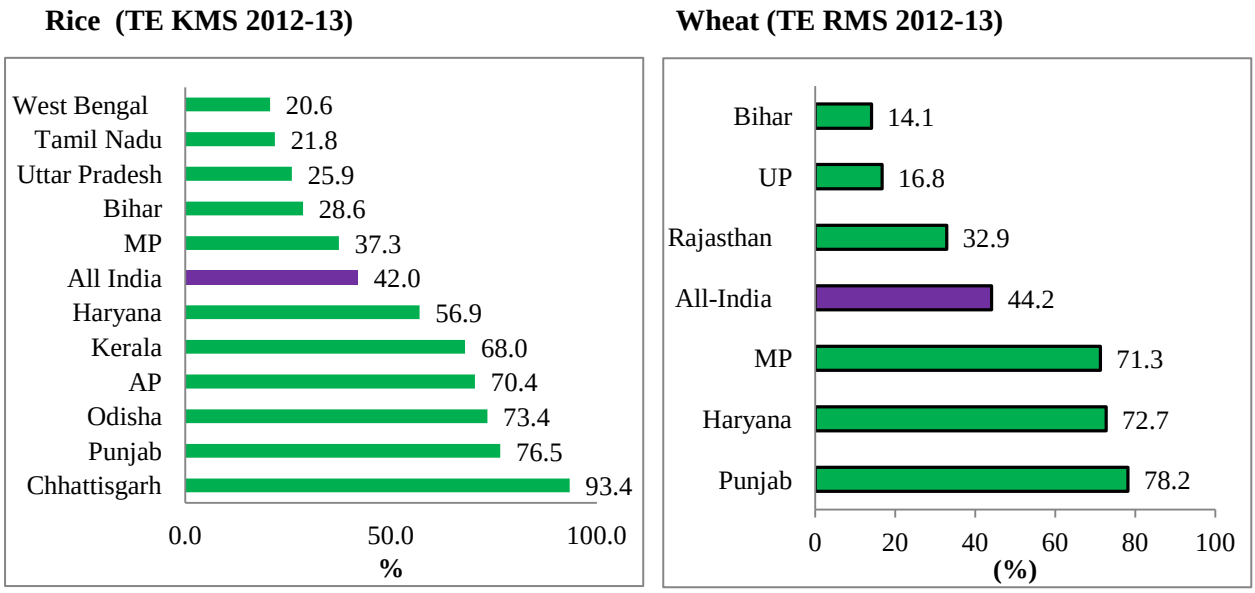
[26] http://www.business-standard.com/article/economy-policy/punjab-roller-flour-mills-to-buy-wheat-from-up-112041702004_1.html

[27] Recently, to prevent entry of wheat from other states, Punjab government is levying a 5 per cent advance tax on wheat entering the state. http://www.thehindubusinessline.com/markets/commodities/levy-makes-it-tough-for-up-wheat-to-enter-punjab/article5934297.ece

[28] Dandekar, V.M., 1994, 'The Indian Economy, 1947-92', Vol. I, (Agriculture), Sage Pub., New Delhi cited in PC, 2001: 8.

quality' (FAQ). Data shows that between 2006-07 and 2012-13, with increases in both MSPs and bonuses (especially state declared bonuses), the procurement of rice and wheat also increased by 35.6 per cent and a whopping 310.8 per cent respectively. Although procurement levels have now declined from the peak levels of 2012-13, procurement of wheat was still 25.09 million tonnes in RMS 2013-14; and that of rice (including paddy) in KMS 2013-14 (as of 28.08.2014) was 31.31 million tonnes. Thus about one-third of the total production (more than 40 percent of the marketed surplus) of rice and wheat was procured for Central Pool. This "de facto nationalization" of wheat and rice trade (NCAER 2006: 11), reduces their general availability in the open market.

Chart 3: Procurement as a % of Marketed Surplus



Notes: MSR is available upto 2011-12 only and repeated for the following years; since MSR for Chhattisgarh was not available, the arrival figures of paddy, converted into rice was taken.
Sources: DES, DFPD, Agricultural Statistics at a Glance, 2013

The states whose levels of procurement as percentage of marketed surplus were higher than the all India average (chart 3), triggered market distortions as they accounted for about 40 per cent of rice production in 2012-13 and 43 per cent of wheat production in 2013-14. The levy on rice, which is 30 per cent in MP, 50 per cent in Chhattisgarh, 75 per cent in AP, Haryana, Odisha, and Punjab added to the distortions.

A direct consequence of increasing procurement is mounting foodgrain stocks in the Central Pool. While foodgrain stocks have steadily declined from the peak level of 80.5 million tonnes on 1st July 2012 to 67.5 million tonnes as on 1.7.2014, (it was 73.9 million

tonnes[29] last year) it is still high vis-à-vis the buffer stock norm (including strategic reserve) of 31.9 million tonnes. FCI recently modified its definition of rice stocks[30], by which lesser quantum of rice stocks is reported, but it is still higher than the stipulated buffer norm for rice. In the case of wheat, procurement for 2013-14 commenced from 1.4.2014 when FCI had more than 18 million tonnes of wheat in stock (vis-à-vis the buffer norm of 7 million tonnes); while the procurement target was 31 million tonnes, that is, more than 32 per cent of the total wheat production. Such large-scale procurement has led to the anomaly of piling up of rice and wheat stocks with FCI and double-digit inflation in rice and wheat in recent times. Apart from imposing a huge additional cost to procure, store, transport and distribute grain[31], the increasing public procurement has marginalized the private sector and thus throttled the domestic grain market. With mounting stocks in Central Pool, FCI has the option to release the grains back into the market through the Open Market Sale Scheme (OMSS) and /or export through other parastatals. A pragmatic choice would be to limit procurements to requirements and leave the rest for the market to consume as per its needs.

The CACP Report (1993: 8) noted, "The fact that State Departments of Food/Civil Supplies are more concerned with the size of procurement rather than ensuring support price to the farmers is reflected by continuation of such control orders that restrict movements of paddy and rice from one part of the country to other with a view to maximizing procurement". This observation has relevance today as some state governments impose inter-state movement restrictions and seek to maximize revenues through higher procurements and taxes. This is not a healthy trend. Absence of competition affects long-term efficiency in procurement operations and hurts farmers as well as consumers.

(viii) Development of food processing industry

A domestic marketing route that is crucial for growth of agri sector is the robust presence of agro industries. In the current scenario, with increased procurement by some states, not only is there a crowding out of private trade, but rakes of paddy from the eastern region (especially eastern UP, Bihar, Odisha, etc) are reportedly sent to

[29] The figures include the unmilled quantities of paddy with FCI and state agencies, converted to custom milled rice (CMR) taking out-turn ratio of 67 per cent.

[30] From September 2013 FCI is giving figures of rice stocks only, excluding the figures of unmilled paddy in its stock; it is reported that these would be added to the rice stocks as and when they are milled.

[31] The procurement incidentals (including statutory levies and commissions, cost of gunny bags, charges to State governments for storage & interest etc.) are reported to contribute to around one-sixth of the economic cost for both rice and wheat.

Punjab/Haryana/Chhattisgarh, and after milling, in many cases, the same paddy comes back as rice through the PDS which adds to the costs. This is due to the mushrooming of small units with low capacities and the slow growth of rice mills with large capacities in these states. Further, in Bihar, more than 80 per cent of a total 350 rice mills are of less than one tonne/hour capacity, wherein the conversion rate of paddy to rice is only 60 per cent vis-à-vis the normal rate of 67 per cent (CACP, 2013: 17-18).

Further, there are high levels of losses in the supply chain which are attributed to several factors including non-availability of facilities for aggregation, packaging, storage, transportation, and cold chain and low level of processing of agricultural produce. A CIPHET (Central Institute of Post-Harvest Engineering and Technology) study of 2010 put the losses in the range of 0.8 per cent to 18 per cent (GOI, 2014a: 152). With the food processing sector growing faster than the agriculture sector, at an average annual growth rate of around 8.4 per cent during the last five years ending 2012-13, the role of the private sector is crucial as their large investments can bring in economies of scale in operations. Incentivizing and developing the downstream market linkages is a necessary condition for enhancing farm incomes.

(ix) Extension of Futures Trading and Negotiable Warehouse Receipts

Two important initiatives were taken in the last decade with the aim of improving domestic market efficiency. These were opening up the futures trading in all agricultural commodities in 2003 and the passing of The Warehousing (Development and Regulation) Act, 2007.

However, since 2007 different commodities have been banned for different periods of time – for instance, futures trading in wheat was banned between 2007 and 2009; while futures trading in pulses such as tur (arhar), urad and oilseeds such as mustard seed continue to be banned. There were short periods when futures trading in rice, potato, and other oilseeds were banned. The on-off policy - of sudden ban imposition and lifting - adds to the non-transparency and uncertainty in the market and has hampered the development of this platform as a means of price discovery for the benefit of farmers and other stakeholders.

Futures trading performs two important functions, namely, price discovery and price risk management with reference to a given commodity. During times of price volatility this mechanism dampens the amplitude of price variation and leads to integrated price structure throughout the country. It enables the economy to adjust to the changing demand-supply situations. It encourages competition and acts as a price indicator to farmers and others trade

functionaries. Price-signals given by futures contracts can help farmers to take decision about cropping pattern and the investment intensity of cultivation, and improves his bargaining capacity. The manufacturers are able to hedge their requirement of the raw materials and as also their finished products. In fact, procurement agencies can use this platform to their benefit by hedging their future requirements on a regular basis, as per the provisions of the NFSA, 2013. It is thus useful to all stakeholders in the agricultural sector and a stable policy on futures trading is required.

The Negotiable Warehouse Receipts (NWR) system aimed at not only helping the farmers to avail better credit facilities and avoid distress sale but will also to safeguard financial institutions by mitigating risks inherent in credit extension to farmers. The Warehousing Development and Regulatory Authority (WDRA) is the authority to register and accredit warehouses intending to issue NWRs. However, this system can operate successfully only in an open competitive market. For instance in the case of rice and wheat, it is reported that NWRs are reportedly not used by farmers as they find it profitable and easier to sell their produce at MSP to the guarantor. Unfortunately even in areas where procurement agencies are less operative, the NWRs are not gaining ground as a means of trade. This is also a necessary condition for the development of competitive markets.

(2) International Trade

While trade is an equally important avenue for marketing of agricultural products, there have been restrictions on international trade in agricultural commodities. "…the interface between domestic market reforms and reforms in international trade are particularly important, and have probably received less explicit recognition than is necessary in much of the existing work on agricultural market reforms. This link, however, is critical to the future development of Indian agriculture" (Chadha et al, 2011: 218). However, this crucial link has not been strengthened, as India has largely been an autarkic nation. "External trade in agriculture was heavily controlled by the government parastatals through a web of quantitative restrictions, licensing and canalization of exports and imports by parastatals. Agriculture was not covered in the trade liberalization measures taken during 1991 and 1992, apart from relaxation of some export controls" (ibid: 221).

India, with a large and diverse agriculture, is one of the world's leading producers, as well as a major consumer. India is among the world's leading producers of paddy rice, wheat, buffalo milk, cow milk and sugar cane. Therefore, changes in its balance sheets for key

commodities will have a potentially large impact on world markets. However, its presence on the world market has been limited as the key goal of agricultural policy since independence has been to achieve self-sufficiency (EC, 2007: 1).

A study on the effects of the liberalisation of rice exports that were introduced in 1994 showed that reforms significantly improved the integration of domestic rice markets with the world rice market, in the sense that local prices became more quickly aligned with international market prices. Also, considerable difference was found in the speed of convergence between the surplus and deficit States, as during that time producers in surplus states were able to export rice relatively freely in response to higher external prices, while many domestic trade restrictions continued to hinder efficient internal trade[32]. Chadha et al (2011: 260) conducted simulation experiments and found that India's opening up of her agricultural markets would bring in welfare gains, particularly when the processed agricultural product markets were liberalized.

In recent years, macroeconomic policy reforms have brought increased liberalization and have contributed to changes in agricultural trade. Exports of agri and allied products were valued at USD 32.3 billion in 2013-14, a jump of 122 per cent from 2008-09. However, generally an on-off trade policy has been followed with respect to agricultural commodities, more often as a knee-jerk reaction to the domestic price situation. For instance, cotton exports were suddenly banned in March 2012; the ban was soon lifted but cotton prices crashed in the domestic market impacting heavily on the farmer. Unfortunately, there are instances when these adhoc measures attain a semi-permanent status, such as in the case of pulses, edible oils, where only conditional exports of some quantities are allowed. This instability puts the domestic as well as international market under great uncertainty, and the farmer, being at the bottom of the pyramid, is severely affected. It also leads to erosion of confidence on India being a trustworthy supplier in the international market. Recently, a step was taken towards restoring partial stability by allowing exports of all processed agricultural products even if their base produce were subjected to an export ban.

The twin roles of a market are to enable price discovery of traded goods and services and to serve as a signal for efficient allocation of productive resources. The institutional and regulatory framework governing the internal agricultural markets bridled India's ability to

[32] Jayasuriya, S., J. H. Kim and P. Kumar (2008), 'Opening to World Markets: A study of Indian Rice Market Integration', mimeo, Department of Economics and Finance, La Trobe University cited in Jayasuriya and MacLaren (2008: 9).

adjust its agricultural markets with the evolving global environment (Chand, 2005: 3). This is more apparent now in the context of the opening up of exports of agri processed products. Any distortions to competitive functioning of markets, as shown in the previous paragraphs, adversely affect and reduce the efficiency of market outcomes. A holistic policy covering all aspects of agricultural marketing, both domestic and international has, therefore, to be crafted for a vibrant agriculture sector.

C Policies that impact on Storage and Distribution

The government monopoly in marketing has created entry barriers to the private sector in the field of storage construction. The warehouses are owned by FCI, Central Warehousing Corporation (CWC) or the State Warehousing Corporations (SWC). The CWC was established as a statutory body in 1957, while State Warehousing Corporations (SWCs) were also set up in different States. In addition, the FCI has also created storage facilities. The total storage capacity of FCI and state agencies was 73.6 million tonnes as on 1st April, 2013; with FCI being the single largest agency with a capacity of 37.74 million tonnes. While procurement of rice and wheat expanded by 26.7 per cent in 2012-13 over 2008-09, total storage capacity[33] increased by an impressive 30.9 per cent. However, if only the covered storage capacity is considered, the increase is by only 6.8 per cent over the same period, while storage under CAP (cover and plinth)[34] is by a whopping 276 per cent. However, CAP is an unscientific means of storage and results in enormous indirect costs including quality deterioration and pilferage. This highlights the need to involve and incentivize the private sector in constructing better-quality storage godowns. While private sector is being roped in to create capacities for the government (on a five to ten year guarantee period) under the Private Entrepreneurs Guarantee (PEG) Scheme since 2008, the progress has been tardy as private entrepreneurs do not find it profitable.

As with other government interventions, PDS had emanated from the critical food shortages of the 1960s when it contributed to the containing rise in food grains prices and ensured access of food to urban consumers. As agricultural production increased, the outreach of PDS was extended to tribal blocks and areas of high incidence of poverty in the

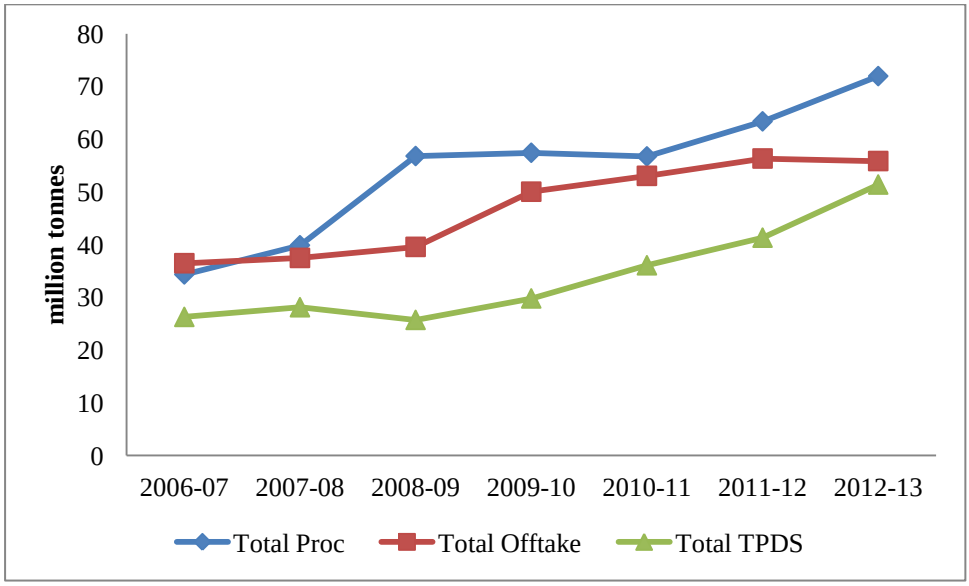
[33] Total storage capacity includes covered storage and CAP – both owned and hired.

[34] CAP storage is an indigenous method developed by FCI, whereby foodgrains are stored in the open with precautions such as rat and damp proof plinths, use of dunnage and covering of stacks with specially fabricated polythene covers etc.

1970s and 1980s. PDS, till 1992, was a general entitlement scheme for all consumers. The Targeted Public Distribution System (TPDS) was introduced with effect from June, 1997[35]. Now, under the NFSA, 2013, the coverage, and entitlements of foodgrains have undergone some change. It provides for coverage of upto 75 per cent of the rural population and upto 50 per cent of the urban population (that is, 67 percent of the total population); the priority households are entitled to receive foodgrains @ 5 kg per person per month and the existing Antyodaya Anna Yojana (AAY) households will continue to receive 35 kg of foodgrains per households per month.

An analysis of the trend in procurement and offtake (both TPDS and total) of foodgrains is presented in chart 4. The growing divergence between procurement and TPDS offtake is evident since 2007-08. It is also apparent that over the years there has been increased offtake under other welfare schemes (OWS).

Chart 4: Total Procurement, TPDS Offtake and Total Offtake (TPDS+OWS) of Rice & Wheat (2006-07 to 2012-13)



A core concern regarding PDS is the fixation of central issue prices (CIP). Historically, the CIPs were aligned to the market price. For instance, during the mid-seventies, when the procurement price for wheat was Rs. 105 per quintal the economic cost of wheat worked out at Rs. 128.51 per quintal and wheat was distributed at an issue price of Rs. 125 per quintal. By 1986-87, while the rise in procurement price of wheat was 58 per cent, the increase effected in the issue price was 52 per cent (CACP 1989: 7). By 2000, allocation to Below Poverty Line (BPL) families was at 50 per cent of the economic cost (at

[35] http://dfpd.nic.in/?q=node/101

Rs 5.65 per kg in the case of rice and Rs 4.15 per kg for wheat). The CIP for Above Poverty Line (APL) was fixed at 100 per cent of economic cost (at Rs 8.30 per kg in the case of rice and Rs 6.10 per kg for wheat) in July 2002[36]. However, these CIPs have not been revised although economic costs have increased by more than 106 per cent in 2012-13 over 2002-03. Under the NFSA, rates for all categories have been reduced further to equal the AAY issue prices of Rs.3.00, Rs.2.00 and Rs.1.00 per kg for rice, wheat and coarse grains respectively. In an economy where the average annual growth rate of per capita net national income was 14.7 per cent at current prices during 2007-12 (GOI, 2014b), there is no economic logic of reducing CIPs for APL and BPL. The availability of cheaper foodgrains could trigger deviant behavior - farmers may stop growing foodgrains given the rising costs, and households could divert their use as feedstock, as the prices of other feedstock are higher. The growing divergence between market prices and CIPs would further add to leakages and transmit to both the subsidy bill as well as inflationary pressures.

Also, the government's continued emphasis on procurement and distribution of rice and wheat through the PDS is contrary to the actual demand pattern. The latest Report on Consumption Expenditure (NSSO, 2013) reveals that expenditure on cereals between 1993-94 and 2011-12 declined from 24.2 per cent of the total consumption expenditure to 12 per cent in rural areas and from 14 per cent to 7.3 per cent in urban areas. Also, by envisaging procurement and distribution of more rice and wheat in the PDS the government is, in a way, directing the demand side also, which is contrary to the ground reality that shows changing preference functions of consumers. This underscores the need to anchor our food policy to the requirements of people.

While the need to provide cover to the vulnerable sections of the population is recognized, the methods adopted to do so are moot. "Convincing evidence that social protection can reduce inequality and the depth and severity of poverty has persuaded governments in the developing world to invest in large-scale social protection programs, particularly cash transfers" (ADB, 2012: 53). This is a good practice that could be emulated by India to augment social and economic welfare. In fact in USA, the USDA is facilitating farmers markets with the technology to accept SNAP (Supplemental Nutrition Assistance Program, formerly food stamps) benefits[36] - over 3200 farmers markets and individual direct marketing farmers were authorized in 2012.

[36] http://nfmaonline.org/

Further, fair price shops have also come under intense scrutiny. "…food coupons can effectively break the hegemony of the present set of fair-price shopkeepers, who, over a period, have developed vested interests and have also managed to gain substantial political clout. In fact, most of the ills of the present system can be attributed to the patronage in allocating fair price shops" (Nandakumar, 2010). To improve their viability, fair price shops could stock other consumable items as well, which could be purchased by any consumer, both ration card-holders and non card-holders. In a market-driven world, the consumer is supreme. Consequently the adoption of a system of cash transfers (conditional or unconditional) or food stamps will pave the way for empowering the consumer.

While India's farm sector has attained new heights, albeit in select commodities, many challenges remain on the marketing side. Regulatory barriers have constrained private investments in storage and processing, hampered the development of effective market institutions, and lowered the capacity of agricultural producers to be internationally competitive (GOI, 2011b: 9). Although some important measures aimed at 'freeing' the market were taken, policy flip-flops have reduced the impact. Streamlining the functioning of the FCI and removing government hegemony in agricultural marketing will attract private sector participation and iron out market distortions.

IV Outcome and Impact Analysis

Government interventions coupled with an adhoc trade policy have created chaos in our economy. For instance, export of rice and wheat was liberalized in 1995. During the late 1990s, while world price of cereals sharply declined, MSPs were rising, which made exports uncompetitive and significantly increased public procurement due to the open-ended public procurement policy and resulted in an unprecedented accumulation of stocks in Central Pool to 63 million metric tons by July 2002. Exports were then subsidized and stocks fell sharply to 16 million tons by April 2006 (in the case of wheat from about 41 million tons to just 4 million tons)[37]. This led to inflationary pressures building in the economy and culminated in a series of export bans and slashing of import duties to facilitate higher imports.

Significantly, most of the market interventions discussed in this paper, namely, MSP, state declared bonus, EC Act, taxes and state procurement have seen quantum jumps/changes around the same time, that is between 2006-07 and 2008-09; concurrently, food inflation has

[37] A detailed analysis of events is given in Ganesh-Kumar et al (2007: 2).

also taken a higher trajectory since 2007-08 (details are under the section on MSP). Due to the open-ended procurement policy hikes in MSPs automatically lead to increased purchases by state agencies. These additional funds that flow into the rural economy get factored into food inflation. Therefore, while specific outcomes have already been highlighted under some interventions, the prime focus is on food inflation[38]. Hence, the impact of these market distorting interventions on food inflation has to be taken seriously.

With respect to domestic agricultural policies, the table at Annex 1 recapitulates the agricultural market policies being followed in the 19 states and shows their outcomes in terms of the increase in production and procurement over a five year period (2012-13 over 2007-08), and their impact (or market distortion) as measured by the percentage of production that is procured, procurement-storage ratio and procurement-offtake ratio. While all states are intervening in the agricultural market in one way or the other, the degree of market distortions caused by them varies significantly. No ranking of states is attempted. Among them, the states causing least distortion (that is, nil or negligible effect on the impact ratios) would be Assam, Gujarat, HP and Maharashtra all of whom also impose lower taxes, levy no bonus but impose levy on rice; only Maharashtra has fixed stock limits for paddy and rice. In the next rung are states of Karnataka, Kerala and Rajasthan (with high bonuses, and levy on rice and Kerala imposing stocking limits but no levy of rice) and have significantly increased their procurement of rice over the five years under study. It is surprising that Kerala's high level of bonus has in fact led to a reduction in production of rice, while procurement has increased by 43 per cent in 2012-13 over 2007-08. In Rajasthan, while wheat production has increased by nearly 30 per cent, its procurement has multiplied by over 400 per cent. While, the effect on the impact ratios is not significant, the increasing state procurement is a worrisome trend in these states.

The state policies adopted in the remaining twelve states (AP, Bihar, Chhattisgarh, Haryana, Jharkhand, MP, Odisha, Punjab, Tamil Nadu, UP, Uttarakhand and West Bengal) are resulting in relatively more distortions as higher percentages of production of rice/wheat are procured; and their storage capacities not being commensurate with the quantities procured. In addition, with the exception of Haryana, Jharkhand, Punjab and UP, the rest are DCP (decentralized procurement) states. Thus, the increasing state procurement when viewed against the respective PDS requirements of each state reveals another dimension of distortion;

[38] In the current context, the paper regards food inflation to be influenced more by structural factors led by government interventions; consequently, the role of monetary policy is not considered.

these states procure more than their PDS requirements thus leading to the concomitant issue of lower availability in the open market. The twelve states also accounted for more than 83 per cent of rice production as well as wheat production in TE (triennium ending) 2012-13. Half of these twelve states, namely, Bihar, Uttarakhand, UP, MP, Haryana and Punjab are dominant in both the rice and wheat markets, with a combined share of 36 per cent in total rice production and 82 per cent in total wheat production. Thus, the anti-competitive policies of states are contributing to distortions in rice and wheat markets and to food inflation.

V Policy Implications & Way Forward

The government turning into the single largest buyer and consequently, as some authors state, the largest hoarder of foodgrains, has led to a piquant situation of excess stocks and high cereal inflation. A similar situation occurred in the early 1990s and in a way foretold the events that would unfold. Experts then called for "a thorough analysis for ascertaining whether something is wrong in the policy and/or its management" (CACP, 1993: 3). The policies and instruments that served well from the 1960s to 1980s, are proving to be ineffective now, leading to inefficient allocation of resources and making the agricultural sector less competitive, that too in this era of liberalization where there is a premium attached to efficiency. The current state of affairs needs to be rectified urgently to enable India to cope with the challenges and tap the opportunities available.

In addition, while the agricultural trade rules in the WTO's (World Trade Organization) Agreement on Agriculture do not bar public stockholding programmes for food security, if food for such programmes is acquired at administered prices and not at market prices, then there is deemed to be support to farmers. As per WTO rules negotiated in the Uruguay Round all such support has to be kept within a limit of 10 per cent of the value of production of the product in question. In addition, countries have questioned India's MSP mechanism, arguing that it would help India export subsidized grains in the world market and distort global prices. It is also charged that India is following a 'double subsidization' process - that subsidized inputs, such as power and fertilizer are given to farmers along with MSP.

"One mistake that is easy for government to make is to over-estimate its own powers" (Basu, 2010: 17). It is therefore urged that in these years of bumper production and stocks, the policies of the government pertaining to all aspects of foodgrain production to distribution be revisited to bring about a paradigm shift in the role of the government. It needs to be highlighted that piece-meal solutions would not bring in the desired result. All aspects, from

production to distribution, need revamping. Therefore the following are suggested:

(i) **Review legal structures**: It is imperative to examine and if necessary amend/repeal the APMC Act, the EC Act, and other such legally created structures whose restrictive provisions are archaic in the current scenario and act as barriers to free trade.

(ii) **Develop alternate marketing channels**: (a) Direct marketing and contract farming initiatives need to be rigorously pursued, as has been done by some state governments with success; (b) Develop the agro processing sector which would automatically provide a marketing outlet for farmers. Regulatory reforms are required to attract investments necessary for the sector to become competitive; (c) A stable trade policy based on tariff interventions instead of non-tariff trade barriers needs to be spelt out. The benefits of opening up the economy would ultimately flow to the farmer and consumer through market efficiency; (d) For all stakeholders to reap the benefits of futures trading the use of ad-hoc interventions has to be restrained as they create uncertainty in the market.

(iii) **Uniformity in Taxes/levies**: A necessary concomitant condition for establishing a national market is having uniformity in taxes across states. An early roll out of General Goods & Services Tax (GST) will benefit as these taxes will be subsumed under it.

(iv) **Adopt Income Policy for Farmers**: MSP is a minimum guarantee price; it is not an income policy. An income policy may be adopted whereby farmers can be given a lump sum amount, inclusive of all farm subsidies (fertilizer, power and others), on a graded per hectare basis, as an income support. A dual pricing system has to be adopted - the MSP, or the minimum guarantee price, based on the average paid out costs of the farmer, to be used during market distress; and the procurement price, which would effectively be the market price. Markets would perform more efficiently if prices are discovered in the market and procurement is effected at market prices, as in the case of sugar. Simultaneously farmers' insurance schemes have also to be strengthened.

(v) **Adopt Cash Transfers/food stamps for consumers**: The income policy cannot operate effectively unless the PDS policy is also concurrently revamped. In view of changing consumption functions, a system of cash transfers (conditional or un-conditional) or food stamps may be adopted, which consumers can use as per their preferences. This can also be done in a phased manner - for instance, states/UTs that experience difficulties in directly procuring foodgrains from the market may be excluded initially, and FCI can continue to procure for them.

(vi) **Streamline working of FCI:** With the adoption of both income policy and cash transfer policy, the role of FCI would be limited to procuring foodgrains as per requirements of select states/UTs and for retaining strategic reserves in the Central Pool; and maintaining a stabilization fund for helping farmers during times of market crashes.

By adopting the above measures market distortions in production, marketing and distribution can be simultaneously reduced. These will create a national market for agriculture and trigger multiple positive outcomes:

a) As the quantum of income support would be crop neutral, farmers would be induced to produce crops based on market signals and the concentration on rice and wheat due the current system of MSPs and bonuses will be eliminated.

b) With the all-inclusive income support, the use of fertilizer, power and water would be restricted as per requirement.

c) Procurement of cereals by FCI and state agencies would be from the market for providing the PDS requirements of select states/UTs and maintaining reserve stocks only, and would automatically end the open-ended procurement policy.

d) Procurement can be made by raising region-specific tenders, and/or through the futures platform (both domestic and international) to hedge their needs.

e) This would reduce the cost of procurement incidentals and its concomitant problems of overflowing stock, storage inadequacy and bulging food subsidy[39].

f) These policy changes would encourage participation of the private sector in all agricultural market development activities.

g) This would also take care of objections raised by the World Trade Organization (WTO) and other countries on India's subsidy mechanism and farm trade policies.

h) The cumulative impact of all these measures on food inflation will be immense – as it would truly signal market fundamentals and become amenable to policy prescriptions.

Recent decisions of Government

Against the above backdrop, the central government has recently taken some distinct steps.

(i) The recent initiative to provide soil health cards to each farmer is a step towards enabling formulation of an income policy.

(ii) Two decisions will have an impact on limiting procurement and stocks of rice and wheat from KMS 2014-15 and RMS 2015-16 - (a) Limit procurement from states that are

[39] '…direct transfer of food and fertilizer subsidies in cash to targeted beneficiaries has the potential to save almost Rs 60,000 crores, without any major adverse impact on the beneficiaries' (Gulati and Saini, 2013: 6)

declaring additional bonus over and above the MSP to the extent of TPDS/OWS requirements. In the case of non-DCP states declaring bonus, FCI will not take part in MSP operations in those states. (b) Cap the percentage of levy rice at 25%. However, simultaneously, DFPD has entered into a MoU with FCI for 2014-15, whereby FCI will be graded on its performance on different criteria, one of which is achieving the procurement targets set for rice and wheat at 33.80 million tonnes and 25.30 million tonnes respectively. Grading would be 'excellent' if targets are over achieved; 'good' if they are achieved; and lesser grades would be given depending on the extent of divergence from the targets. As is evident, this runs counter to the above two decisions. Consequently, the net impact of the two decisions on limiting procurement of rice and wheat remains to be seen.

(iii) A related decision on restructuring of FCI has been taken and a High Level Committee was set up on 20 August 2014 that would give its recommendations within a period of 3 months.

(iv) Import of one lakh tonnes of rice over a five month period from Myanmar for augmenting the TPDS supplies in the north-eastern states. While this is an exploratory measure, such avenues need to be explored especially as they could be more economical than transporting rice from surplus states like Punjab or AP, and would limit FCI's procurement, and consequently, distortion, in the domestic market.

(v) Another major initiative has been the renewed thrust towards direct benefit transfer (DBT) or AADHAAR project. Achieving full financial inclusion is crucial for direct transfer of subsidies. In this context the successful implementation of the concomitant 'Pradhan Mantri Jan Dhan Yojana' is vital. Dovetailing the two schemes would enable rationalization of food, fertilizer and oil subsidies, and better targeting of beneficiaries, and thereby reduce subsidies.

(vi) Recognizing that a competitive market, besides adding to the welfare of the producers and consumers also plays a contributory role in poverty alleviation, the recent Budget also highlighted that farmers and consumers' interest will be further served by increasing competition and integrating markets across the country.

While these are discrete measures, a holistic policy with across-the-board reforms would enable the Indian agricultural market to cross the Rubicon and progress towards achieving Pareto efficiency.

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Annex 1

STATUS OF STATE INTERVENTIONS - Paddy, Rice & Wheat																				
				Policy Interventions							Outcome (2012-13 over 2007-08)				Impact Measurements					
Sl.No.	State	% Share in Total Prod (TE 2012-13)		Taxes/Levies (as % of MSP)		Bonus (Rs/qtl)		EC Act-Stock Limits		Levy (%)	% change in prod		% change in proc		Proc as % of Prod		Procurement/Storage Ratio	Procurement / Offtake Ratio	
		Rice	Wheat	Rice	Wheat	Paddy	Wheat	Paddy	Rice	Rice	Rice	Wheat	Rice	Wheat	Rice	Wheat	(Procurement = Rice+Wheat)	Rice	Wheat
1	2	3	4	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1	ASSAM	4.7	0.0	0.0	0.0	0	0	-	-	50.0	54.5	-37.8	0.0	0.0	0.4	0.0	0.0	0.0	0.0
2	GUJARAT	1.6	4.0	0.9	0.8	0	0	-	-	50.0	4.5	-23.3	-100.0	0.0	0.0	0.1	0.1	0.0	0.1
3	HIMACHAL PD.	0.1	0.6	5.0	5.0	0	0	-	-	50.0	3.1	20.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	MAHARASHTRA	2.8	1.7	1.1	3.8	0	0	Y	Y	30.0	2.0	-43.2	19.4	0.0	2.2	0.0	0.1	0.1	0.0
5	KARNATAKA	3.8	0.0	0.0	0.0	250	0	-	-	33.3	-9.5	-31.4	205.3	0.0	5.2	0.0	0.1	0.1	0.0
6	KERALA	0.5	0.0	1.0	0.0	450	0	Y	Y	0.0	-3.8	0.0	42.9	0.0	55.0	0.0	0.4	0.2	0.0
7	RAJASTHAN	0.2	9.4		3.6		150	-	-	50.0	-14.3	29.6	-100.0	411.5	0.0	14.5	0.5	0.0	0.5
8	ANDHRA PD	12.7	0.0	13.5	0.0	0	0	Y	Y	75.0	-13.6	25.0	-14.6	0.0	60.9	0.0	1.1	2.0	0.0
9	BIHAR	5.8	5.2	6.5	3.0	0	0	-	-	50.0	70.4	20.4	134.8	6662.5	20.9	10.7	1.3	0.6	0.3
10	CHHATTISGARH	6.1	0.0	9.7	2.2	270	0	-	-	50.0	21.8	43.0	74.9	0.0	67.4	0.0	2.0	3.0	0.0
11	HARYANA	3.7	12.9	11.5	11.5	0	0	-	-	75.0	10.0	8.6	65.8	158.7	56.2	61.9	1.1	72.0	10.3
12	JHARKHAND	2.4	0.3	3.5	1.0	0	0	Y	Y	50.0	-5.1	128.3	1031.6	0.0	2.9	0.0	1.0	0.1	0.0
13	MADHYA PD.	2.2	11.8	4.7	9.2	C=100 GrA=100	100	-	-	30.0	89.8	117.7	1200.0	14800.0	30.2	52.6	1.4	1.1	1.9
14	ODISHA	6.5	0.0	12.0	0.0	0	0	-	-	75.0	-3.3	-77.4	53.3	0.0	44.9	0.0	2.5	1.4	0.0
15	PUNJAB	10.7	18.3	14.5	14.5	0	0	Y	-	75.0	8.4	5.5	7.2	89.3	76.1	63.7	1.0	208.1	14.0
16	TAMIL NADU	5.6	0.0	0.0	0.0	C=50; GrAA=70	0	Y	-	30.0	-19.6	0.0	-50.4	0.0	20.9	0.0	0.6	0.3	0.0
17	UTTAR PD.	13.2	33.0	8.5	8.5	0	0	Y	-	60.0	22.4	18.0	-21.0	827.3	20.3	11.3	1.0	0.8	0.8
18	UTTARAKHAND	0.6	1.0	7.5	7.5	0	0	-	-	75.0	-2.2	5.4	238.1	6850.0	28.8	10.2	1.5	1.5	0.3
19	WEST BENGAL	13.9	1.0	0.0	2.5	0	0	-	-	50.0	2.1	-2.3	23.5	0.0	12.0	0.0	1.0	0.9	0.0

Notes: Serial nos. do not indicate ranks. While the top seven represent the least distorting, the rest of the states (from sl nos 8 to 19) are arranged in alphabetical order. Data under policy interventions pertain to 2012-13; while those under impact measurements pertain to TE 2012-13

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