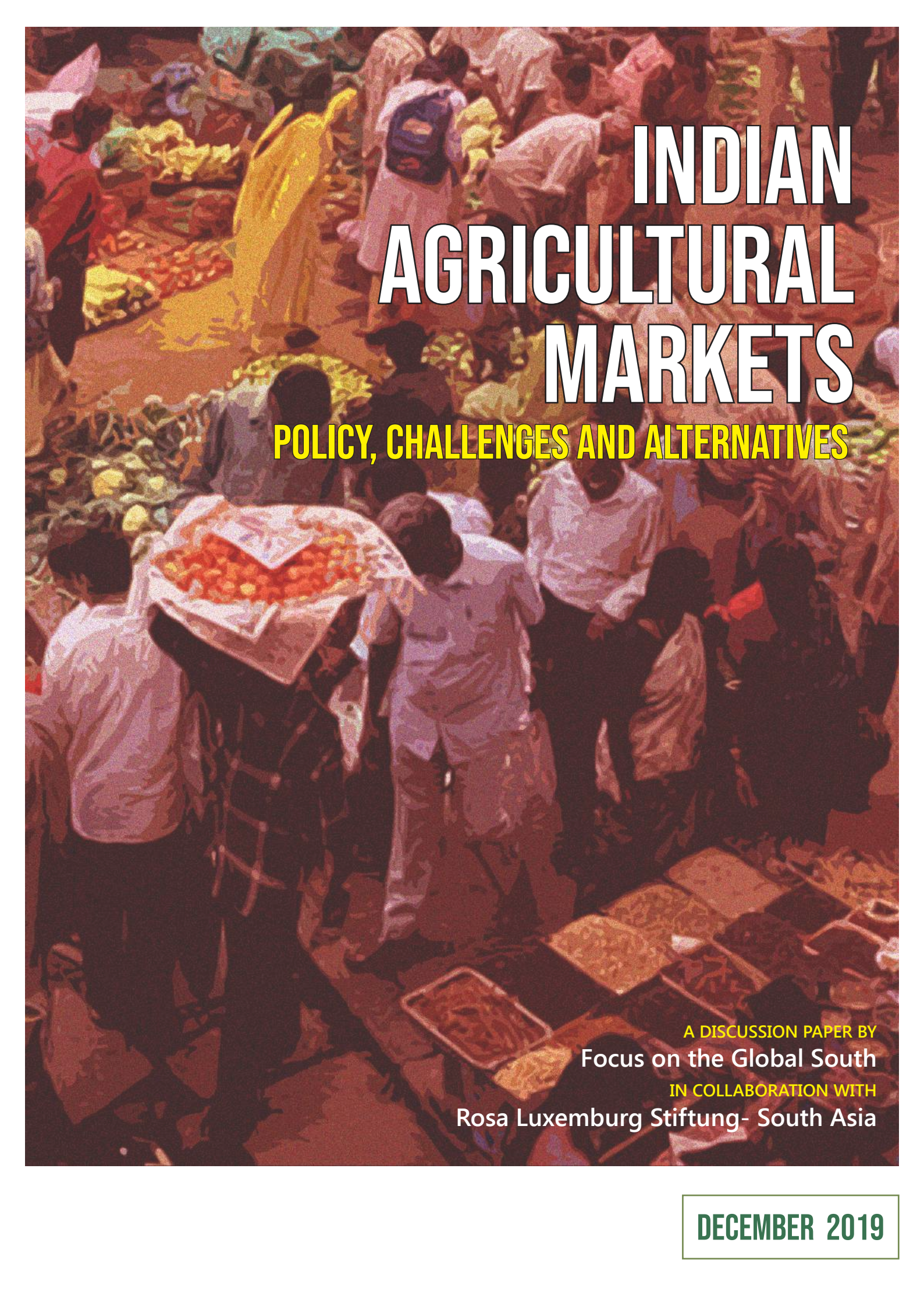




INDIAN AGRICULTURAL MARKETS

POLICY, CHALLENGES AND ALTERNATIVES

A DISCUSSION PAPER BY
Focus on the Global South

IN COLLABORATION WITH
Rosa Luxemburg Stiftung- South Asia

DECEMBER 2019



Indian Agricultural Markets: Policy, Challenges and Alternatives

A Discussion Paper by
Focus on the Global South

In collaboration with
Rosa Luxemburg Stiftung – South Asia

December 2019



The report draws from a two day symposium that was organised from 10-11 December, 2019 at the India International Centre, New Delhi. Please refer to Annex 1 for the agenda and speakers

Written by: Jai Vipra

The publication is sponsored by the Rosa Luxemburg Stiftung with funds of the Federal Ministry for Economic Cooperation and Development of the Federal Republic of Germany. This publication or parts of it can be used by others for free as long as they provide a proper reference to the original publication.

The content of the publication is the sole responsibility of the partner and does not necessarily reflect a position of RLS.

The text is not directly attributable to any of the speakers, as it is a summary report of the proceedings.

Cover image: *Bangalore city market* by Christian Ostrosky/ Flickr

Images (inside pages): *Indian market* by Magali/ Flickr & *Delhi 2005* by Patrik M. Loeff// Flickr

Designed by: V. Arun Kumar

Published by: Focus on the Global South with support from the Rosa Luxemburg Stiftung – South Asia office.

TABLE OF CONTENTS

CHAPTER 1: BACKGROUND TO AGRICULTURAL MARKETS IN INDIA	7
A) THE AGRARIAN CRISIS AND CHANGING POLICY PRIORITIES	7
I. AGRICULTURAL MARKETS ARE SITUATED IN PRODUCTION SYSTEMS	8
II. APMC MARKETS EMERGED AS A RESPONSE TO A NEED FOR REGULATION	8
III. APMC MARKETS HAVE BEEN CAPTURED	8
IV. APMC MARKETS CAN BE REFORMED	9
V. RETAIL INTERESTS HAVE SOUGHT TO CENTRALISE AGRICULTURAL POLICY	10
CHAPTER 2: PROPOSED REFORMS IN AGRICULTURAL MARKETS	11
A) DIRECT CASH TRANSFERS	11
B) DIGITALISATION OF AGRICULTURAL MARKETING	11
C) NATIONAL AGRICULTURAL MARKET (ENAM)	13
D) CONTRACT FARMING	13
E) FUTURES MARKETS	15
CHAPTER 3: OUTSTANDING ISSUES IN AGRICULTURAL MARKETS IN INDIA	15
A) MINIMUM SUPPORT PRICE – MAJOR ISSUES	16
I. THE PDS AND MSP ARE NECESSARILY RELATED	16
II. MSP CALCULATIONS SIGNIFICANTLY UNDERESTIMATE COSTS	16
III. MSP IS NOT WORKING AS A PRICE FLOOR IN MOST AREAS	18
IV. THE PROCUREMENT SYSTEM IS INADEQUATE AND UNDER ATTACK	21
V. PRICE VOLATILITY AND DIVERGENCES ARE BATTERING AGRICULTURAL MARKETS	22
VI. DEMANDS FROM FARMERS’ MOVEMENTS HAVE TO KEEP PACE	22
B) AGRICULTURE AND INTERNATIONAL TRADE	23
I. INDIAN AGRICULTURE IS NOT INTERNATIONALLY COMPETITIVE	23
II. INTERNATIONAL TRADE AGREEMENTS CONSTRAIN POLICY SPACE TO THE DETRIMENT OF FARMERS	26
C) FOOD, NUTRITION AND AGRICULTURAL MARKETS	30
I. THERE IS HUNGER AND WIDESPREAD FOOD INSECURITY IN INDIA	30
II. FOOD INSECURITY REVEALS INEQUALITY AND NUTRITIONAL DEFICIENCIES	31
III. AGRICULTURAL POLICY CAN BE CHANGED TO IMPROVE NUTRITIONAL OUTCOMES	32
CHAPTER 4: SOLUTIONS TO PROBLEMS IN AGRICULTURAL MARKETS	34
A) COOPERATIVES ARE A TRIED AND TESTED ALTERNATIVE	34
B) CONSUMER MOVEMENTS CAN STRENGTHEN COOPERATIVES	34
C) TERRITORIAL MARKETS AS AN ALTERNATIVE?	35
D) POLICIES TO IMPROVE NUTRITION SHOULD BE PROMOTED	35
E) OTHER RECOMMENDATIONS	36

30/-
प्रति किलो

चावल बासमती
18/-

चावल स्या
बासमती

चावल बासमती

GO

चावल बासमती

चावल बासमती

चावल बासमती

चावल बासमती

चावल बासमती
21/-

बासमती टुकड़ा
16/-

22/-

चावल बासमती
16/-

बासमती टुकड़ा
15/-

19/-

बासमती टुकड़ा
13/-

बासमती
10/-

DEHRA

PRICE

CHAPTER 1: BACKGROUND TO AGRICULTURAL MARKETS IN INDIA

A) THE AGRARIAN CRISIS AND CHANGING POLICY PRIORITIES

The agricultural situation in India is in many ways worse than ever. Since 2014, the country has seen two drought years, but even three years after the drought, agriculture has not rebounded as expected. Crop agriculture has been growing at only about 0.5 percent per annum; agriculture overall is growing at 3 percent per annum, which is the long run Indian average. The components of this statistic are unevenly trustworthy – we have good statistics for certain crops, but poor statistics for livestock and horticulture

growth. There is relatively slow growth in sectors where the data quality is good, and which cover 70 percent of total agricultural area in India, half of the total value of agricultural output, and which employ most farmers. Such a long stretch of sustained low growth in agriculture has hardly been experienced in India after independence.

RURAL CONSUMPTION DECLINED IN REAL TERMS BY AROUND 10% BETWEEN 2012 AND 2018

The data from the consumption expenditure survey was withheld by the government but leaked in the press.¹ It indicates that rural consumption declined in real terms by around 10 percent between 2012 and 2018, a rate of decline that has never occurred before. Besides, the decline in consumption is largest in the relatively wealthy part of the population. If this data is reliable, it means that the sector as a whole is slowing down, not that it is merely facing exacerbated distributional issues.

Part of the decline in growth is due to international trade moving against adequate returns to agriculture. Farmer suicides are not a robust index of agricultural decline, but are still an indicator of a deep malaise. They have increased in a manner similar to the period between 1998 and 2002, shortly after when agrarian trade was opened up. The data on farmer suicides is also not released in a regular and comparable way.

Other factors exacerbating the agrarian crisis are the deregulation of agricultural inputs, the introduction of the Goods and Services Tax (GST), and the disruption in livestock economics caused by right wing politics against cattle slaughter.

Despite this, India is no closer to a solution to the agrarian crisis, at both conceptual and programmatic levels. There are merely tall claims of doubling farmers' incomes, which are at best optimism, and at worst, a slogan substituting for policy measures.

Meanwhile, over the last twenty years the dominant policy discourse has veered towards two solutions: one, moving agricultural marketing from the States to the Centre; and two, revoking the Agricultural Produce Market Committees (APMC) Act and allowing a free market in agriculture. In this context it would do well to understand the following about agricultural marketing and policy in general, and APMC markets in particular.

I. AGRICULTURAL MARKETS ARE SITUATED IN PRODUCTION SYSTEMS

An integrated view of agricultural markets is important. Even if efficient agricultural markets can improve price signals, in the backdrop will still be the problem of large scale disguised unemployment. The larger question to ask is what we provide the farmer in terms of economic betterment. This question urges us to move towards a change of production relations in agriculture.

It is not governments alone who are looking at

agricultural markets in isolation of the production structure. In the process of sharpening their demands, even farmers' movements are losing sight of the fact that marketing reforms are part of larger strategy of agrarian transformation. Historically, policies related to agricultural markets were central to the question of agricultural planning, including not only growth and food self-sufficiency, but also to ensure that food was made available to the non-agricultural population, prices were determinants for crop patterns, and food inflation was kept in check. We need to recognise that agricultural prices and markets have repercussions on the economy as a whole.

II. APMC MARKETS EMERGED AS A RESPONSE TO A NEED FOR REGULATION

Before APMC markets came up, farmers used to be subject to the whims of traders and would be routinely exploited by them, through extractive credit practices and unfair terms. In the 1950s and 1960s, APMC markets were thus set up as regulated markets offering a minimum level of infrastructure, in addition to regulated weights, measures and trading practices. In exchange for these services, trade outside these markets was made difficult or even illegal in some cases. The rationale for setting up APMC markets was that visibility increases outreach of regulation.

III. APMC MARKETS HAVE BEEN CAPTURED

Over time, some APMC markets have become oli-

gopolistic due to the prevention of entry for new players. They have also become places where political finance circulates, because rents are shared and gathered in these markets. Cash transactions and credit add to the problem of rent in APMC markets. The nature of political control has meant that APMC reform has proven to be inordinately difficult, despite financial incentive announced by the Centre for reforming APMC markets in the states.

Reforming APMC markets has also been difficult due to the control exercised by merchants and landlords. The system of landlordism and credit is interlocked. Sometimes, there are even situations where the biggest landlord in the village is also the commission agent, the owner of processing and stocking infrastructure, and the biggest buyer as well as the chairman of the APMC. Traders often end up colluding in setting bid prices such that farmers are underpaid. The form of power concentration in APMC markets differs regionally, but this complex network of relationships and the concentration it enables are critically linked to land ownership and the production process. Action is not being taken to break this economic concentration of power at the roots.

IV. APMC MARKETS CAN BE REFORMED

Ideally, agricultural markets would cultivate both thickness – increased participation to make collaboration and exploitation less likely – and proximity – decreased distance for the farmer, reducing costs of trade. There is a tradeoff between these two qualities, but APMC markets have been unsuccessful in promoting either. Separate licensing requirements for each mandi have ensured that markets have remained thin. The problem of a lack of proximity has also been long recognised. However, given the legitimate reasons for why APMC was introduced, the baby cannot be thrown out with the bathwater. APMC markets can and must be reformed.

Debates about agricultural markets have been simplified into pro-APMC and anti-APMC stances, whereas practically the details need to be understood and fixed. Policymakers have to take into account the fact that APMC markets are closely linked to the production system and credit channels. For example, Madhya Pradesh in the 1980s was able to remove credit-linked commission agents from APMC markets, but mainly because the production system had changed: cultivation had moved from cotton to soyabean and wheat, changing the incentives of producers as these crops required different credit arrangements. When the method of removing such commission

**REFORMING
APMC
MARKETS HAS
ALSO BEEN
DIFFICULT
DUE TO THE
CONTROL
EXERCISED BY
MERCHANTS
AND
LANDLORDS.**

agents was implemented in vegetable markets, it failed as the production structure itself had not changed. The conditions of production are important to reforming credit channels.

The state's regulatory capacity for agriculture has to be increased in order to tackle the various levels of issues in APMC markets. This is particularly important because the larger ecosystem around APMC markets has to be considered to make them effective and useful, for example, the availability of storage facilities to increase farmer choice in case of unfavourable prices.

V. RETAIL INTERESTS HAVE SOUGHT TO CENTRALISE AGRICULTURAL POLICY

There is a general consensus about the sensitivity of retail as a sector in India, because it is labour intensive. It is the third largest employer after agriculture and construction. 1991 roughly marked the beginning of corporate retail in India. In the early 2000s, many businesses invested in property assuming that agricultural retail markets would grow. While this did not pan out, now that commodity prices are falling, retail investments are coming up again.

Recent policy measures have sought to increase Foreign Direct Investment (FDI) in retail. 100 percent FDI in marketplace e-commerce, as well as single brand retail, has been made automatic. The government has also allowed 100 percent FDI in fresh food products, provided the food is manufactured and processed in India. Despite all these policy measures, foreign investment has not risen as expected.

One well established issue with retail is that agro-industrialisation is a prerequisite for retail to be viable. Retailers have always recognised that investment in the back-end is necessary, but this has not been forthcoming. Secondly, private standards in retail markets are leading to exclusion of farmers' products at a rate that is higher when compared to APMC markets. Thirdly, there are monopsony conditions in modern agricultural retail markets. Farmers have little opportunity for fair remuneration in these supply chains.

Meanwhile, retail interests have sought to centralise agricultural policy. Till the mid-1990s, the Constitutional division of responsibilities between the states and the Centre was clearly understood to mean that agriculture, apart from the operation of the PDS, was primarily a state domain. Since then, the discourse has shifted to the idea that agriculture calls for such deep reforms and is full of such large distortions that it can only be changed if there is a single market for agricultural products. This means that the states lose responsibility over agriculture markets. This has not yet transpired, but it is an idea pushed by those wanting large national retailers, and is inked to retail market liberalisation. Calls to repeal the APMC Act have also come from this sector.

With this background, we can now explore the dominant proposed solutions for agricultural marketing in India.

CHAPTER 2: PROPOSED REFORMS IN AGRICULTURAL MARKETS

A) DIRECT CASH TRANSFERS

It has been recommended that the whole system of public food distribution be disbanded and replaced by direct cash transfer. There are continual directions from the Centre to the states to shift to cash transfers, but there has been little if any uptake of this from the states, highlighting the importance of the Public Distribution System (PDS). An attempt was made in Puducherry to move to cash transfers, but eventually the state government reinstated PDS. As of now, the government in Puducherry provides grain from state subsidies and cash assistance from central subsidies. Cash transfers are not a recent invention – they are linked to long-standing World Trade Organization (WTO) pressure on the PDS.

There are many issues with disbanding PDS and converting it to cash transfers. It will weaken the entire system of Minimum Support Price (MSP) and procurement. MSP in rice and wheat continues because there is a mandate to distribute these crops. There is also a link to nutrition. The PDS is important not just to provide enough rice and wheat, but also to free up incomes for purchasing other food and improve diet diversity. Meanwhile, the policy response is merely to enable fortification of foodgrains with vitamins and minerals through the Food Safety and Standards (Fortification of Foods) Regulations, 2016. Experts point out that there is no evidence to show that fortification reduces malnutrition.² It is therefore better to improve diet diversity through the PDS in order to reduce malnutrition.

This is a better policy response than the current one, which is to fortify cereals in response to concerns about micronutrient deficiencies.

Cash transfers would be a death knell for Indian agriculture, because MSP and cash transfers together are fiscally unfeasible. If the state promotes cash transfers, it likely has a roadmap for deregulation of agriculture.

B) DIGITALISATION OF AGRICULTURAL MARKETING

Between 2013–17, India saw investments in 558+ deals in the agri-food technology sector, worth 1.66 billion USD. This is about 10 percent of global investments in the same time. While there are new start-ups in agricultural technology, existing technology giants are investing in agriculture and existing agricultural giants are investing in technology.

However, most start-ups are investing in solutions for consumers and traders, rather than for farmers. This is because scale is easier to achieve in these markets as markets for farmers are highly differentiated, and also because most farmers cannot afford solutions that are expensive. Start-ups also face other challenges: the barriers to entry in this sector are high and lead to a long time-to-market; the import duty for components of high-technology devices means that manufacturing them in India is very costly; and data is difficult and costly to collect. Data is the foundation on which most of these businesses are built, and agriculture data in India is not easily available. There is no coherent data policy framework in the country, especially for non-personal data.

This presents problems for the public sector as well. Private monopolies thrive due to an unavailability of public datasets and public solutions. State investment in digitalisation of agriculture is not being made through local agricultural colleges, where it is desperately required. It is instead made in Public Private Partnerships (PPPs) with digital giants, leading to a danger of end-to-end value chain consolidation by these corporations. Today it is transnational corporations and not startups that are making big investments in precision agriculture, affecting farmers' decision making and local autonomy. An unfair knowledge premium is gained by appropriating the farmer's data and selling intelligent solutions to the farmer. This control has already extended to allied services like credit and insurance.

In this situation, policymakers should build data infrastructure and public goods for agriculture. They ought to enhance research and development for localised digital innovation, and counter data driven monopolies through mandatory data sharing for corporations, public audits of Artificial Intelligence (AI) products, and a framework for public ownership of non-personal data, software and algorithms. They should also foster alternative data ownership models based on community data or data commons.³

An outstanding issue is that international trade agreements on e-commerce can prevent these policies from taking shape. Proposed policies in the WTO plurilateral on e-commerce and e-commerce chapters in various Free Trade Agreements (FTAs) affect digitalisation as a whole. They include provisions that disallow any mandated local storage of data, which throws the sovereignty of the people over that data into question. They prohibit any mandated disclosure of source codes, which again affects people's control over automated decision-making. These and other provisions in such agreements would constrain policy space on digitalisation of agriculture irreversibly, and thus policymakers should avoid agreeing to them.

Apart from the above, there are some indications to show the role of digitalisation in causing or worsening the agrarian crisis. The twin government objectives of digitalisation and a cashless economy have wreaked havoc over the largely cash-based economy in rural India. Demonetisation and Goods and Services Tax (GST) implementation have restricted informal cash transactions and broken long-standing contract arrangements and trust between parties. This disruption continues even today. Mandatory Aadhaar linkage for PDS and other government programmes has also been excluding beneficiaries in different ways, through loss of cards, fingerprint matching errors, patchy internet connections, etc. One can see that in a large number of starvation-related deaths, Aadhaar had some role to play.

Digitalisation is disrupting not just rural economies, but also urban ones. Online retail is affecting small agricultural street vendors. The deep discounts provided by digital platforms are impossible to compete with. The vendors catering to middle class and upper middle class consumers have been affected the most. Street vendors surveyed in Bengaluru for a study said that their revenue had reduced due to online platforms, but this effect is difficult to statistically pinpoint to digital platforms alone, given that demonetisation has also played a role in the reduction.⁴



C) NATIONAL AGRICULTURAL MARKET (ENAM)

The eNAM is an attempt to create a national agricultural market through technology. It includes a unified license for traders (unlike the system of mandi-specific licenses currently). It has a provision for online bidding and auctions (meant to prevent collusion by traders) and for payments to be cleared centrally. Goods are able to move throughout the country without further charges under eNAM.

From field studies at 10 mandis in Karnataka, eNAM implementation is poor. Only selected commodities, and on selected days of the week, are traded on the e-platform. The decision is based on the total arrivals of the commodity in the mandi. There are commission agents registered as traders on the platform. Perishable commodities like jaggery seem to not be given to e-trading. Infrastructural issues like power cuts and a lack of internet connectivity plague certain mandis.

The unification of the market has not occurred due to logistical gaps: even if a national trading license exists, the trader has to arrange for storage and transport of the commodities. Additionally, assaying at mandis is inadequate and does not capture all important parameters. Small farmers do not want to part with samples for assaying as they have very little produce to begin with. Further, a truly national market can only take place when all the states align their laws with respect to eNAM.

Centralised payments have been an issue for market participants. Traders are unwilling to pay before they receive the goods. For farmers, there is a challenge of access to banking services and a fear of these accounts being linked to loan accounts, affecting their credit chances.

However, some aspects of eNAM have worked based on these field studies. Online trading saves time for farmers and they are able to leave markets early. It has reduced the possibility of mistakes and manipulation in trading. The system has become more transparent.⁵

D) CONTRACT FARMING

Contract farming has been proposed as a solution to the lack of choice presented by APMC markets as well as to lower transaction costs, lower costs of production and transaction costs, and to raise returns for the

farmer. A contract farming policy was introduced in 2003, even though the practice is much older.

Contract farming is an arrangement for the production and supply of agricultural or allied produce under advance contracts, with a commitment to provide a commodity of a type, at a time, place, and a price, and in the quantity required by a known buyer. It is not the same as corporate farming, captive farming, direct purchases or cooperative procurement.

Contract farming can provide benefits to farmers in terms of yields, prices and incomes. However, it largely excludes small farmers as large tracts of land are demanded by contracting corporations.

Some factors hinder the growth of contract farming in India. Under some APMC Act amendments, contract farming cannot take place without the permission of the APMC. In Haryana, a contracted price cannot be lower than MSP, defeating the purpose of price discovery under contract farming. These restrictions on contract farming are leading to disguised corporate farming.

Contract farming is often necessary to stave off corporate farming. Globally, corporate farming has not been found to be very viable. In the US, only 7 percent of the crop is grown under corporate farming, while 35 percent is under contract farming. There are multiple contract farming models with any number of parties that can be explored by policymakers.

Contract farming is merely a mechanism; its performance and impact depend on how it is practiced. Group contracts can be designed, as was done in Thailand, as farmers find it difficult to protect their interests individually. Regulating it wisely is a must, for which state governments need to urgently have an overview of all contracts signed in their state. The state cannot simply seek to promote and facilitate contract farming without regulating it.

**GROUP CONTRACTS CAN BE
DESIGNED, AS WAS DONE
IN THAILAND, AS FARMERS
FIND IT DIFFICULT TO
PROTECT THEIR INTERESTS
INDIVIDUALLY.**

E) FUTURES MARKETS

Futures markets are proposed by some to eliminate price distortions in agricultural markets. India has had futures trading for a long time. It has gone through phases of prohibition and control. From 2003 onwards, futures markets grew rapidly. Today India has the 4th largest futures trading market in the world.

Cross-border trade and financialisation have been sought to be introduced through futures markets. Some have wanted to tweak the futures market laws in order to bypass the APMC Act. This has not come to pass yet.

Farmers have very little capacity to engage with futures markets, and futures markets are an inappropriate solution to farmers' issues. The main purpose of futures markets is to hedge price risk, but they have now been shown to lead to price abnormalities in spot markets, for example in futures markets for chickpeas. Futures markets have also not been able to provide a mechanism for hedging risks for farmers, as risks have been higher in futures markets.

CHAPTER 3: OUTSTANDING ISSUES IN AGRICULTURAL MARKETS IN INDIA

A) MINIMUM SUPPORT PRICE – MAJOR ISSUES

The Minimum Support Price (MSP) is the price at which the government procures from farmers. MSP is announced based on recommendations by the Commission for Agricultural Costs and Prices (CACP), a body of experts attached to the Ministry of Agriculture and Farmers' Welfare. The Public Distribution System (PDS) of foodgrains at low prices is carried out through the Food Corporation of India (FCI).

Since 1970-71, the Directorate of Economics and Statistics of the Ministry of Agriculture and Farmers' Welfare (DES) has been conducting crop surveys under a scheme known as the Comprehensive Scheme for Studying Cost of Cultivation/ Production of Principal Crops (CCPC). This comprehensive scheme involves collecting data on 23 crops from 19 states.

The conceptual linkages, issues in calculation and issues in procurement are elaborated on below.

I. THE PDS AND MSP ARE NECESSARILY RELATED

During the Green Revolution years, the FCI was created and the MSP was introduced. The government was aware that if output increases, prices fall; and so a mechanism of food distribution

through PDS was created to utilise surpluses. This mechanism worked, but unfortunately only for wheat and rice, and only for surplus states in the initial Green Revolution areas, such as Punjab, Haryana, and Uttar Pradesh. It substantially raised standards of living in these areas in the 1970s and 1980s. This system of the government collecting surpluses and keeping prices up has not expanded significantly.

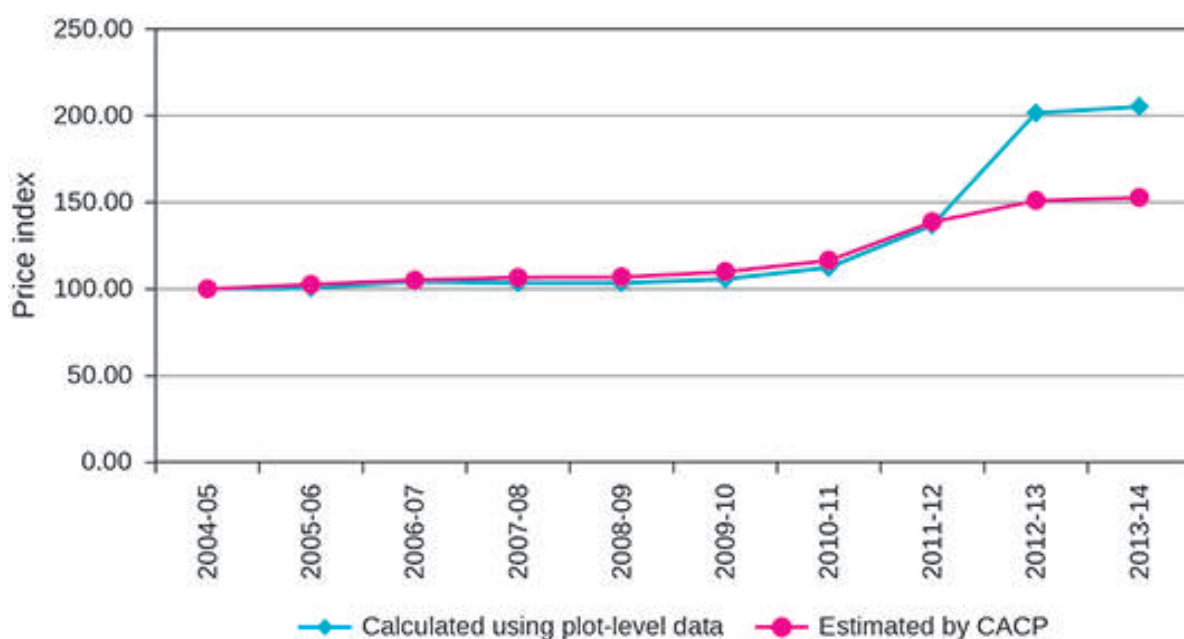
II. MSP CALCULATIONS SIGNIFICANTLY UNDERESTIMATE COSTS

In recent protests, farmers' organisations have claimed that the agrarian crisis is made worse because the calculation of MSP is flawed. They have pointed out that MSP is set based on a severe underestimation of input costs for the farmer. This underestimation is due to various methodological issues in estimating input prices, for example the fact that managerial labour of the farmer is ignored, or that transport costs are left out, or that only a few crops are covered by the data.

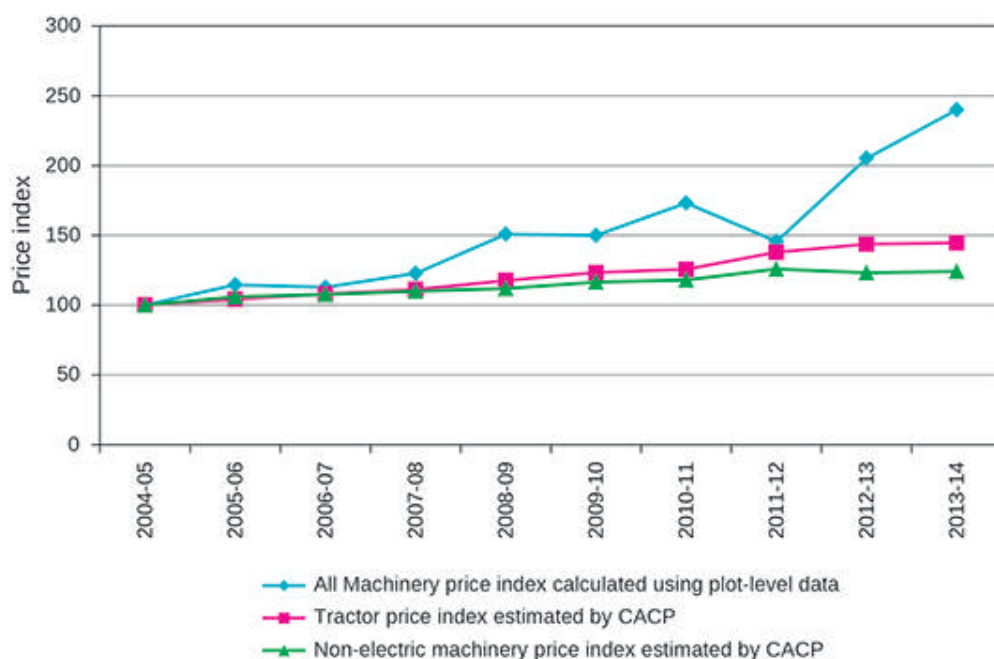
Apart from these issues, there is a lag in data availability. The data used by CACP is plot level data for inputs, which is available with a lag of three years. This data, along with data from other sources, feeds into CACP's projected prices for a particular year. Projected cost estimates are then combined with production estimates, which also lag by a year or two.

Overall, this leads to a situation where actual prices of farm inputs are far above projected prices. The graphs below show the growing divergence between actual prices and projected prices of fertilisers and machinery. MSP is based on an estimated price increase of 1.5 times in fertilisers in

the period between 2004–05 and 2013–14; in reality, prices had almost doubled. Similar but lower trends are observed in the cost of human and animal farm labour. Given that MSP is based on projected prices, this means that MSP assumes costs to be much lower than they actually are, even ignoring the costs that the MSP does not take into account at all. For example, this means that the MSP for cotton in 2014-15 should have been 20-30% higher than was announced.⁶



Divergence between actual and projected cost of fertilisers Source: Kamra and Ramakumar (2019)



Divergence between actual and projected cost of machinery. Source: Kamra and Ramakumar (2019)

In 2012-13, CACP introduced a “correction factor” in recognition of this problem; however, its methodology is unclear and costs are underestimated despite this correction factor. The problem of time lags and of non-inclusion of various costs in determining MSP has to be fixed.

III. MSP IS NOT WORKING AS A PRICE FLOOR IN MOST AREAS

The agricultural price policy came into being in January 1965. Its stated objective is to ensure remunerative prices to growers for their produce, with a view to encouraging higher investment and production as well as safeguarding the interests of consumers.

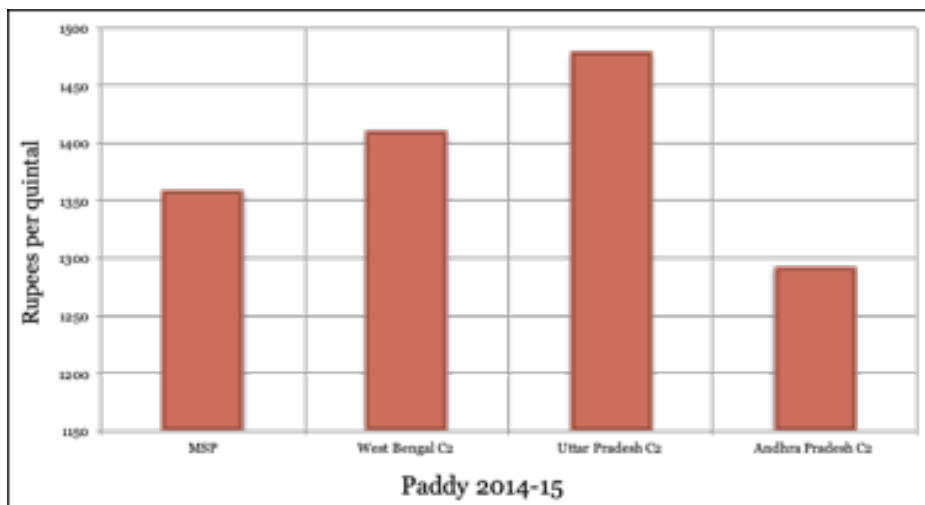
Currently, MSP is calculated based on a three-tier system as can be seen below:

A	A1= All actual expenses in cash and kind incurred in production by the cultivator
	A2= A1+Rent paid for leased in land
	A2+FL= A1+Rent paid for leased in land+Imputed value of family labour
B	B1= A1+Interest on value of owned capital assets (excluding land)
	B2= B1+Rental value of owned land and rent paid for leased in land
	C1= B1+ Imputed value of family labour
C	C2= B2+ Imputed value of family labour
	C2*= C2+ Additional value of human labour based on use of higher wage in consideration with the statutory minimum wage rate
	C3= C2* + 10 per cent of C2*

Courtesy: Biplab Sarkar

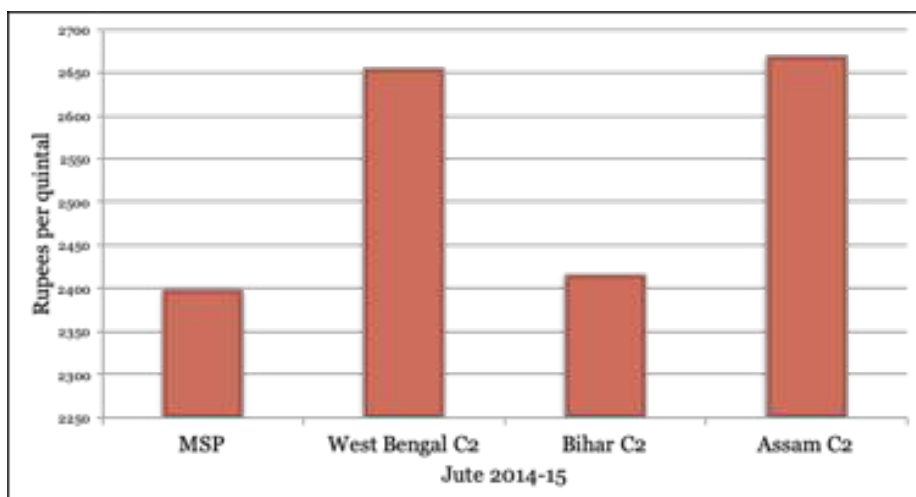
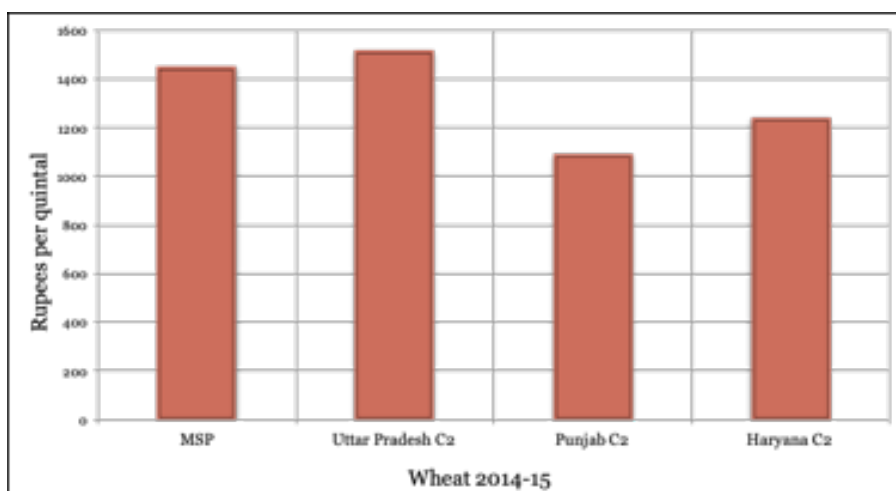
The graphs (next page) demonstrate that other than for wheat, MSP even in the major states has in general been lower than the C2 cost of cultivation calculated by CACP. Thus the MSP is nowhere close to being 1.5 times the C2 cost of cultivation as demanded by farmers’ organisations; it is closer to 60 percent of the C2 cost of cultivation.



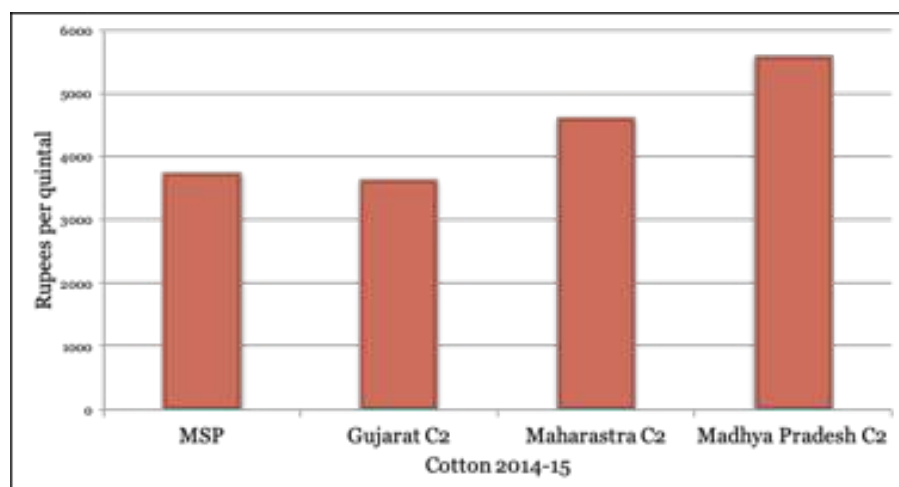


Courtesy: Biplab Sarkar
Source: Cost of Cultivation Reports

Courtesy: Biplab Sarkar
Source: Cost of Cultivation Reports



Courtesy: Biplab Sarkar
Source: Cost of Cultivation Reports



Courtesy: Biplab Sarkar
Source: Cost of Cultivation Reports

From the data below, one can see that MSP has not been hiked by much for almost every crop from 2014-15 to 2016-17, and followed by a substantial hike in 2018-19, the reasons for which are likely political rather than economic.

Crops	MSPs in rupees per quintal (current prices)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Paddy	1360	1410	1470	1550	1750
Jowar	1530	1570	1625	1700	2430
Ragi	1550	1650	1725	1900	2897
Cotton	3750	3800	3860	4020	5150
Wheat	1450	1525	1625	1735	1840
Jute	2400	2700	3200	3500	3700
Sugarcane*	220	230	230	255	275

Courtesy: Biplab Sarkar
Source: Agricultural Statistics at a Glance 2018

From village surveys conducted by the Foundation for Agrarian Studies under the Project on Agrarian Relations in India (PARI), the crop-wise difference in remuneration through MSP becomes clearer. For paddy, in almost all surveyed villages, MSP is lower than the farm harvest price. The divergence is higher for small and medium farmers within the village. In wheat growing villages that were surveyed, MSP was generally higher than farm harvest prices. From this data it can be concluded that in the paddy-growing villages in the eastern and southern states, the MSP is not working as a floor when compared to wheat growing regions.

The low level of procurement has ensured that the poor and middle farmers do not benefit from the MSP in most parts of the country, and that large sections of them are forced to make distress sales to private traders.

IV. THE PROCUREMENT SYSTEM IS INADEQUATE AND UNDER ATTACK

The inability of MSP to work as a price floor is likely due to inadequate government procurement in these most states. For crops such as pulses and cotton, MSP is announced but there is hardly any government procurement, due to which MSP does not function as a price support mechanism. Sometimes the MSP has even had a perverse effect. For example, in the years when the MSP for paddy has been high, government procurement happens in only a few states and stocks rise. Traders in other states take advantage of this situation. They know that government stocks are high, so they force low prices on farmers of other states. These farmers thus sometimes end up paying the price for government procurement.

FCI is in dire straits financially, and its overdues with the government have been a long-standing issue. But over the last three years, the government has not spent on FCI's expenditure but only covered its overdues. As a result, FCI has increased its borrowing and thereby its interest burden and future obligations. This financial situation has cast a shadow of uncertainty over the future of FCI and it belies a lack of prioritisation for procurement by the government.

The procurement system today, for all practical purposes, is limited to two crops (wheat and rice) and a few states. One of the recommendations of the High Level Committee on Restructuring of FCI (known as the Shanta Kumar committee, which submitted its report in 2015), was for the FCI to shift its operations from the traditional states to new states, such that a second Green Revolution could be ushered in. This recommendation has not yet been operationalised.

The Pradhan Mantri Annadata Aay Sanrakshan Abhiyan (PM-AASHA), aimed at protecting farmers' incomes, gives very little boost to procurement. It aims to match the difference between MSP and the market price, and even provides for the entry of the private sector into procurement as FCI does not have the infrastructure to maintain stocks all over the country.

It is in fact feasible for the state to procure and maintain stocks, if it were to expand public distribution of foodgrains. It must also focus on regulating input costs so that procurement is not made unrealistically expensive.

V. PRICE VOLATILITY AND DIVERGENCES ARE BATTERING AGRICULTURAL MARKETS

Price volatility includes both price spikes and troughs, but policymakers have tended to focus on the spikes. This is because price spikes affect consumers, a much larger population than farmer-producers whose livelihoods are affected by troughs.

Over the last two and a half years, divergences are occurring between rural and urban prices of agricultural commodities. This indicates increasing inefficiency in agricultural markets. The drive towards forced formalisation of agricultural markets, without adequate knowledge of those markets, is partly driving this inefficiency.

Supply side causes of price volatility include weather, technology, pests, diseases, land use diversion for feed or fuel, trade rule changes, energy prices (through fertiliser and logistics costs) and exchange rate dynamics among others. Demand side causes, across different time spans, include population growth, income disparity, speculation, hoarding, and changing consumption patterns among others.

Early policy interventions to control price volatility, both in India and globally, have failed remarkably. They have been ad hoc, inconsistent, and uncoordinated. It must be accepted that a degree of price volatility is unavoidable in any market system.

Recent spikes in agricultural commodities have highlighted that India has inadequate regional diversification of crop cultivation. Onions, for example, are primarily grown in only three states: Maharashtra, Madhya Pradesh and Karnataka. Similarly, potatoes are grown primarily in West Bengal, Uttarakhand and Madhya Pradesh. For almost any agricultural commodity, about half the production happens in three or four states. Along with a lack of diversification, a lack of processing infrastructure and a preference for fresh food contribute to price volatility in agricultural commodities. In addition, foreign trade opens up price volatility risks, such as for oilseeds.

VI. DEMANDS FROM FARMERS' MOVEMENTS HAVE TO KEEP PACE

Recent farmers' movements have prominently raised a demand to increase the MSP to 1.5 times the cost of production. This demand has been instrumental in bringing many different farmers' organisations, with all their disagreements, together on a single platform. Their mobilisation has pushed the national conversation on agrarian reform forward. However, there are some concerns raised with this demand. First, it ignores the reasons why the cost of production itself is so high. The withdrawal of the state post-liberalisation from providing subsidies and making investments has increased the cost of production to the present untenable levels. The cost effect of state withdrawal can be seen in fertilisers and irrigation.

Second, returns being 1.5 times cost of production for all crops mean that different crops have vastly different absolute returns. 1.5 times returns for sugarcane is a hefty profit; for urad dal it is a measly sum. This is because the cost of production of urad dal is lower than that of sugarcane, and to survive by cultivating urad dal, a farmer would have to earn much more than 1.5 times the cost of production.

Third, the effects of this level of return on food inflation need to be considered. There is a larger structural problem of unequal land distribution, where the bulk of the rural population depends on wage labour in agriculture, and increasingly outside agriculture. The problem of a substantial part of the rural population depending on food purchases has increased. Higher wholesale prices of food translate into higher retail prices.

Fourth, we are now in a situation where arguably for cereals, especially for rice and wheat, India is certainly self-sufficient, and almost certainly has surplus production. MSP is as of now largely limited to wheat and rice, and so the demand for 1.5 times returns over cost becomes a demand for producing more of the same, possibly leading to a focus on export markets. Exporting more rice would be disastrous as would mean exporting water, given the water intensiveness of paddy cultivation.

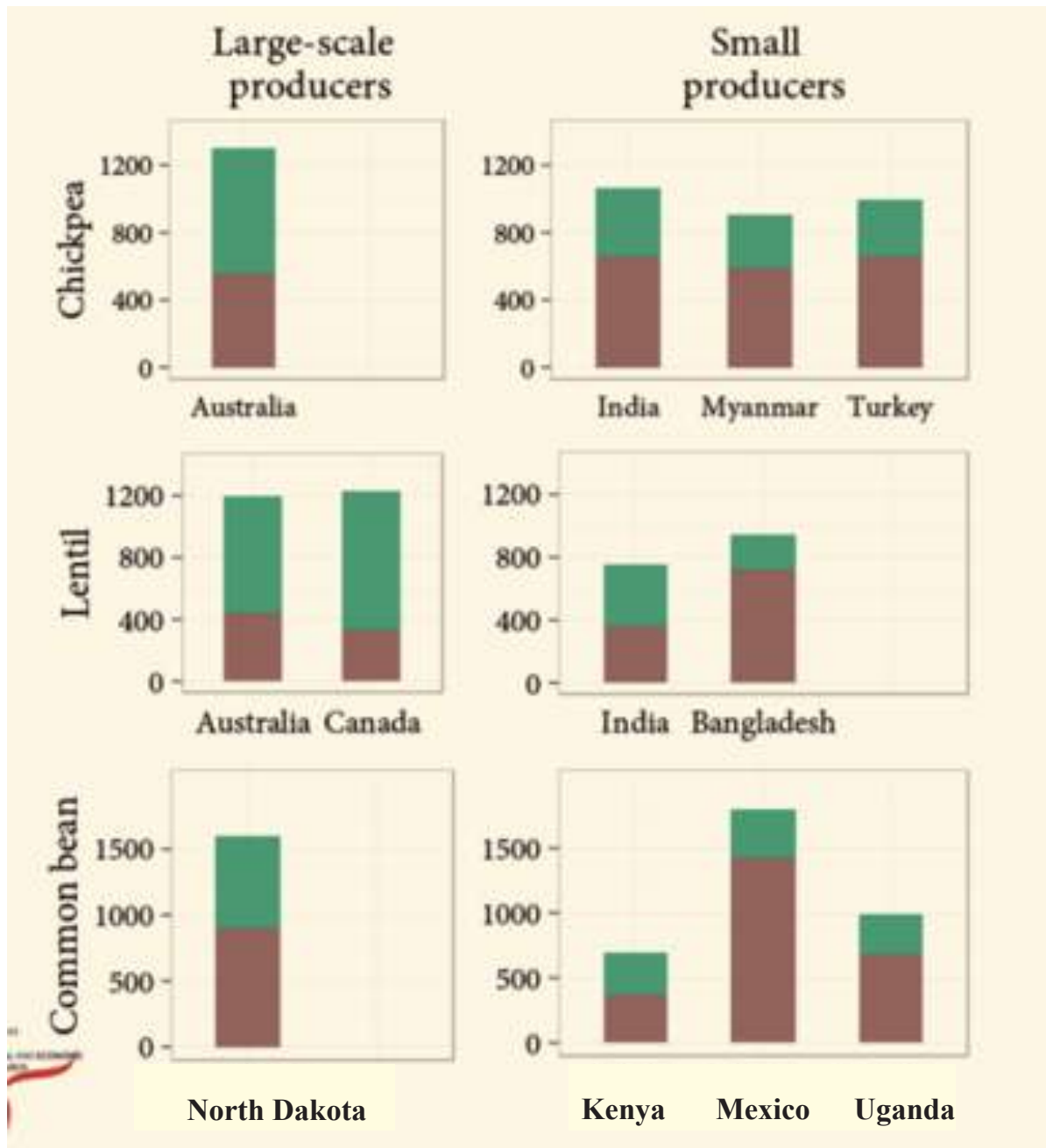
Due to all these reasons, the demand for 1.5 times remuneration over the cost of cultivation has to be considered carefully.

B) AGRICULTURE AND INTERNATIONAL TRADE

The agrarian crisis from the mid-1990s was linked directly to India opening up its agriculture to the world economy and all its vicissitudes. In a closed economy, when the agricultural output falls, prices tend to rise, compensating the farmer for the fall in output. In an open economy, farmers are subjected to a double blow – when output falls, imports compensate for the low output and prices remain low as well.

I. INDIAN AGRICULTURE IS NOT INTERNATIONALLY COMPETITIVE

A study conducted by the Society for Social and Economic Research on the globalised economy of pulses demonstrates why producers face burdens under the regime of international agricultural trade that has been instituted.⁷ The below graphs show, in kilogram equivalent of costs, per hectare costs (bar height) and margins (green bars) for large scale and small producers in different countries. It can be seen that every country that has large scale production has higher returns on pulse production. These returns are higher not just because yields are higher, but because the variable cost of production is lower.



Courtesy: VikasRawal, adapted from Rawal, Vikas and Dorian Kalamvrezos Navarro (eds.). (2019). *The Global Economy of Pulses*. Food and Agriculture Organization of the United Nations, Rome.

To elaborate, the table below shows the gross value of output, costs and gross margin of lentils in different countries. It can be seen that the gross value of output for Canada is twice that of the other countries, and its costs are considerably lower. Its machinery and labour costs, in particular, are significantly lower. Where costs are still high for Australia and Canada are in plant protection chemicals and inoculants, indicating the increased chemicalisation of agriculture in these countries. Farmers have started to remove stubble and weed with herbicides rather than manually or mechanically.

Output, cost and margin	India (2013-14)	Bangladesh (2011)	Australia (2015)	Saskatchewan, Canada (2016)
Gross value of output (USD per hectare)	512	594	586	1269
Yield (kilograms per hectare)	721	947	1200	1230
Producer price (USD per kilogram)	0.68	0.63	0.49	1.03
Variable costs				
Seed	53	91	80	81
Fertilisers and manure	22	80	59	23
Plant protection chemicals and inoculants	3	51	199	98
Irrigation, machinery and draught animals	123	190	71	55
Total labour	152	301	-	31
Miscellaneous	8.45	7	36	49
Total variable cost	363	721	445	339
Gross margin (kilogram per hectare)	387	226	755	891
Gross margin (USD per hectare)	264	142	369	919

Courtesy: Vikas Rawal, adapted from Rawal, Vikas and Dorian Kalamvrezos Navarro (eds.). (2019). The Global Economy of Pulses. Food and Agriculture Organization of the United Nations, Rome.

In India, the cost of production is higher, and total yield as well as per hectare yield are lower than countries with large scale production. The inequality of scale is also compounded when one considers that a medium-sized farm in Canada typically means that a family owns 600 hectares of land. At the same rate of return, this medium farmer makes a huge annual profit while an Indian farmer with half a hectare of land earns starvation income. This makes international competition practically impossible for the Indian farmer. Had India signed on to the Regional Comprehensive Economic Partnership (RCEP), a free trade agreement with ASEAN and five other countries, its pulse production would have been more or less destroyed due to these reasons. What is called a level playing field is often thus a scandal on the working people in the country.

Secondly, Indian value chains in pulses and similar commodities are much longer than those of the developed countries. Therefore the difference between the price a consumer pays and the price the producer receives is fairly large. This also makes the existence of a level playing field under free trade impossible under current production and market conditions.

Agricultural import and export policy is also given to knee-jerk reactions. The voice of consumers carries precedence and when exports grow and prices rise, the situation is reversed through import policy, leaving the producer worse off.

II. INTERNATIONAL TRADE AGREEMENTS CONSTRAIN POLICY SPACE TO THE DETRIMENT OF FARMERS

Despite its lack of competitiveness, India's engagement in global trade has been characterised by autonomous liberalisation – that is, it has reduced tariffs much further than the legally required levels through the World Trade Organisation (WTO), called "bound tariffs". The bound average agricultural tariff is 113 percent; India's actual average agricultural tariff is 30-31 percent. This is still relatively high when compared to some other countries, and makes India a target for further reductions.

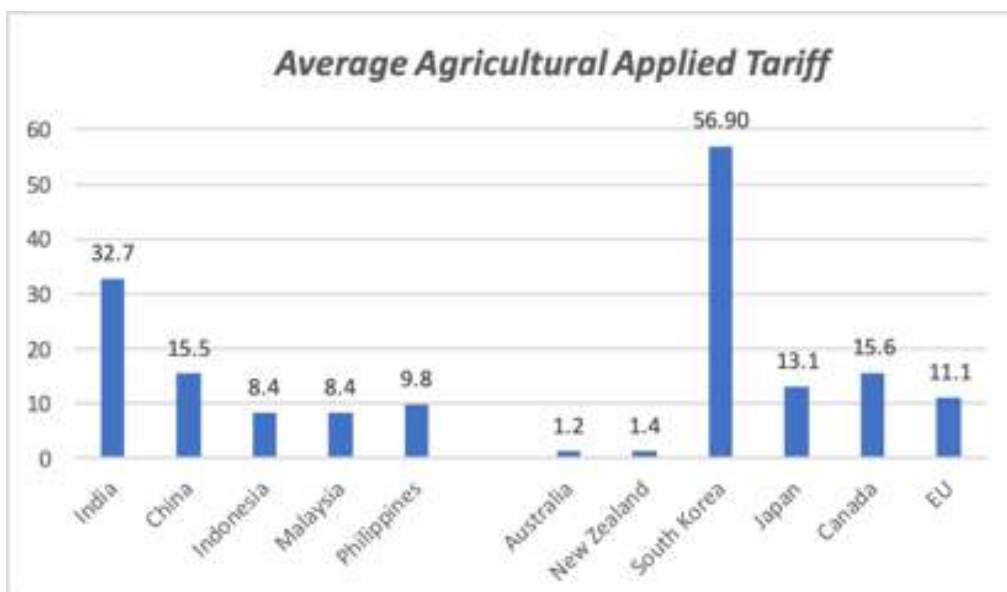
We must remember that tariffs are not the only trade policy instruments. The WTO also regulates agricultural subsidies but very unevenly. Through classification of subsidies as "non-distortionary" (so placed under a section called the Green Box) and other such measures, developed country agricultural subsidies have thrived and even increased, whereas they are now targeting developing country subsidies given even to small farmers for supporting public food programmes. The EU, US, Japan and Canada are the largest agricultural subsidisers in the world. India, Indonesia, Turkey and Jordan are facing challenges at WTO on their food subsidy programs. India is seeking a permanent solution to the challenge on its public stockholding programme, as otherwise it will be compelled to reduce the subsidy it offers to farmers via its Market Support Price (MSP). Standards and quotas for agricultural produce are some other means by which developed countries restrict imports from developing countries.

Below we can see the subsidies given by developed and developing countries in total and per farmer terms. The developed countries evidently provide much higher levels of agricultural subsidies especially per farmer:

Country group	WTO Member (Year)	Total Domestic Support (U\$D bln)	Total Domestic Support per farmer (U\$D)
Developed Countries	Australia 2013/2014	1.8	537
	Canada 2013	5.2	16,532
	EU 27 2012/2013	130.4	12,384
	Japan 2012	33.9	14,136
	United States 2013	146.8	68,910
Developing countries	Botswana 2014/2015	0.1	486
	Brazil 2014/2015	2.1	468
	China 2010	97.2	348
	Gambia 2013	0	35
	India 2013-14	43.6	228
	Indonesia 2008	3.2	73
	Madagascar 2012	0.1	8
	Morocco 2007	1	229
	Namibia 2009/2010	0	272
	South Africa 2014	1.7	2,265
	Tunisia 2015	0.1	148
	Zambia 2012	0.2	77

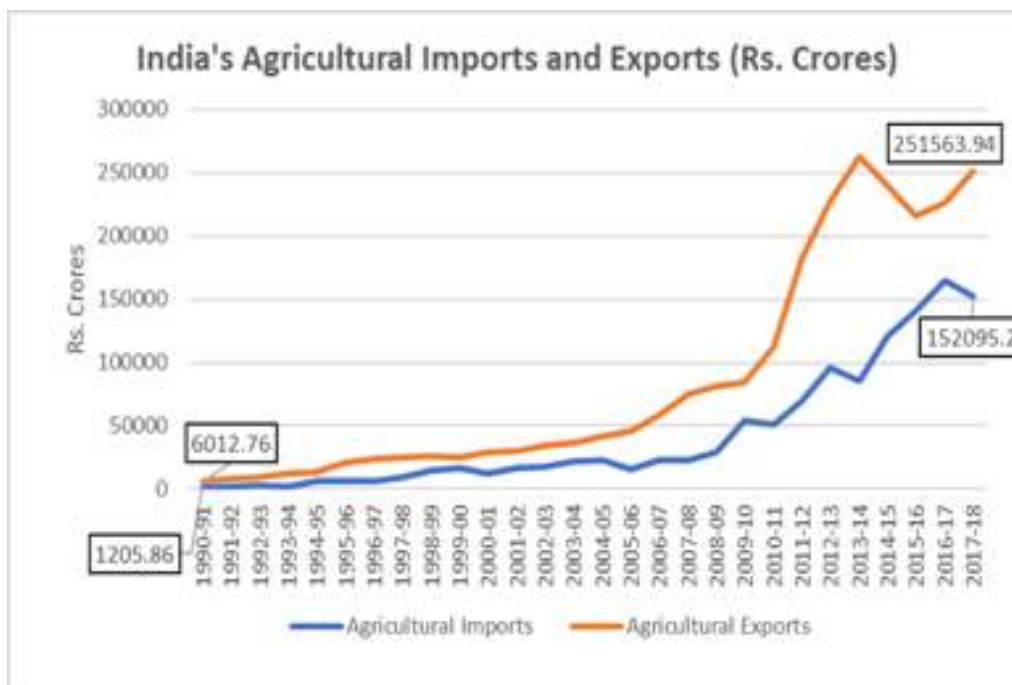
Courtesy: Ranja Sengupta
Source: South Centre, Geneva. 2016.

The WTO, however, has not been able to break its impasse since 2008 due to disagreements between developed and developing countries. Thus trade policy in recent times largely gets made through Free Trade Agreements (FTAs). The graph below shows that India has higher tariffs than its FTA partners. It is unlikely that India will be able to keep agriculture out of the FTAs it is currently negotiating with EU, the US and others.



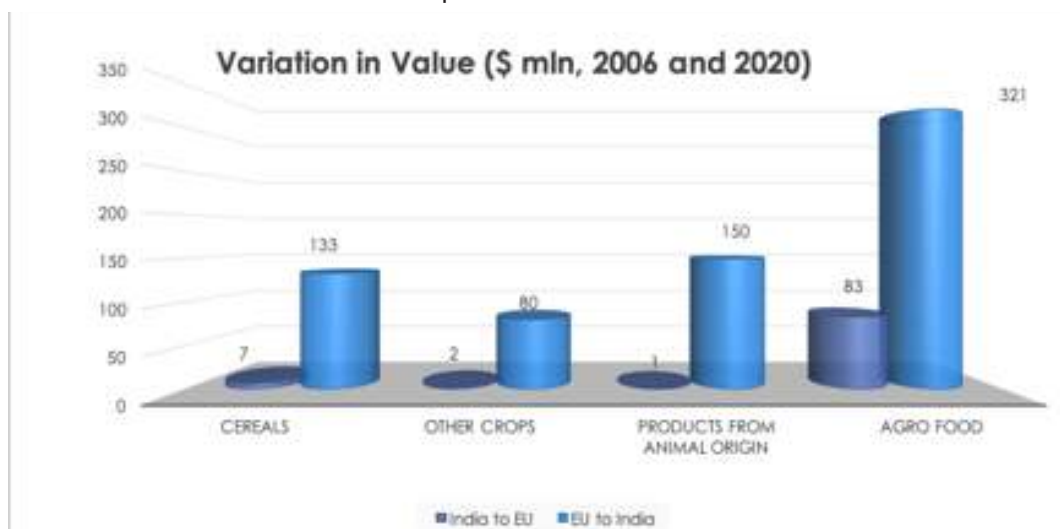
Compiled by: Ranja Sengupta
Source: WTO Tariff Profile. 2018.

Below, we can see that India still has a trade surplus in agriculture, but that imports are rising very quickly. In 1991, agricultural imports were 20 percent of exports; in 2017, they were at 60 percent.



Courtesy: Ranja Sengupta
Source: Agricultural Statistics At A Glance. 2018.

In 2007, a European Commission study projected that an EU-India FTA would be of disproportionate benefit to the EU. The EU's share in Indian agricultural markets is expected to rise from 1 percent to 16 percent; India's share in EU agricultural markets is expected to remain the same. India does not commission similar studies to estimate impact from FTAs:



Courtesy: Ranja Sengupta
Source: CEPII-CIREM. 2007.

There is some data to show that prices of agricultural products crash when imports are introduced. This data is clear for pulses, black pepper and coffee. In addition, primary data reveals this scenario for certain products, for example coconut and rubber. However, national indicators like the Wholesale Price Index (WPI) often do not fully capture levels of price crash. More studies are required to substantiate the link between imports and falling wholesale prices. Sometimes, even the threat of imports is enough to depress wholesale prices. At the same time, retail prices for the consumer continue to rise. There is thus a disconnect between falling prices faced by farmers, and rising or stagnant prices faced by consumers, where neither benefit. This belies much of the proclaimed gain from trade liberalisation.

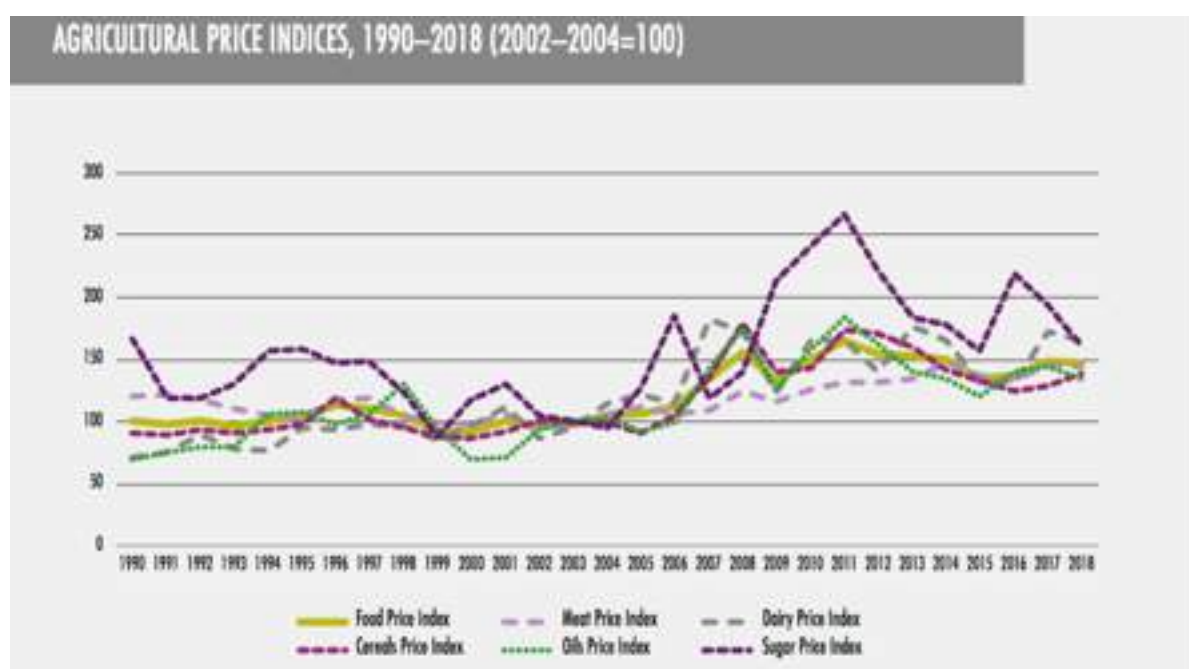
Whole Sale Price Index of Selected Agricultural Products (2012/13 to 2018/19)

	WPI 2012- 13	WPI 2013-14	WPI 2014-15	WPI 2015-16	WPI 2016-17	WPI 2017-18	WPI 2018- 19	Difference between 2012-13 and 2018- 19
Pulses	120	114.9	121.7	164	192.8	140.5	127.3	-36.7
Gram	135.3	109.4	103	142	219.2	164.8	135.7	-6.3
Arhar	109.8	118	128.1	193.2	181.1	116.8	118.2	-75
Moong	108.6	122.6	145.7	165.2	136.8	114	119.6	-45.6
Masur	115.5	132.9	153.9	188	176.9	135.4	122.9	-65.1
Urad	96.6	100.4	124.1	180	201.6	128.2	114.3	-65.7
Condiments								
Black pepper	129.6	139.1	183.5	183.6	186.7	158	135.7	-47.9
Coffee	97	88.3	112	106.6	99.5	98.2	94	-12.6
Source: Office of the Economic Adviser, Department for Promotion of Industry and Internal Trade, GoI								

Courtesy: Ranja Sengupta

It is also important to note that India imports pulses from Canada, Myanmar, and Mozambique among others, and so these are not merely imports from developed countries. However, large Indian agricultural corporations have now begun cultivating pulses in these countries as well.

Another impact of opening up to global agricultural trade is price volatility for farmers. From the graph below it can be seen that volatility has lowered in recent times but it is still a phenomenon to reckon with.



Courtesy: Ranja Sengupta

Source: The state of agricultural commodity markets, Food and Agriculture Organization of the United Nations. 2018.

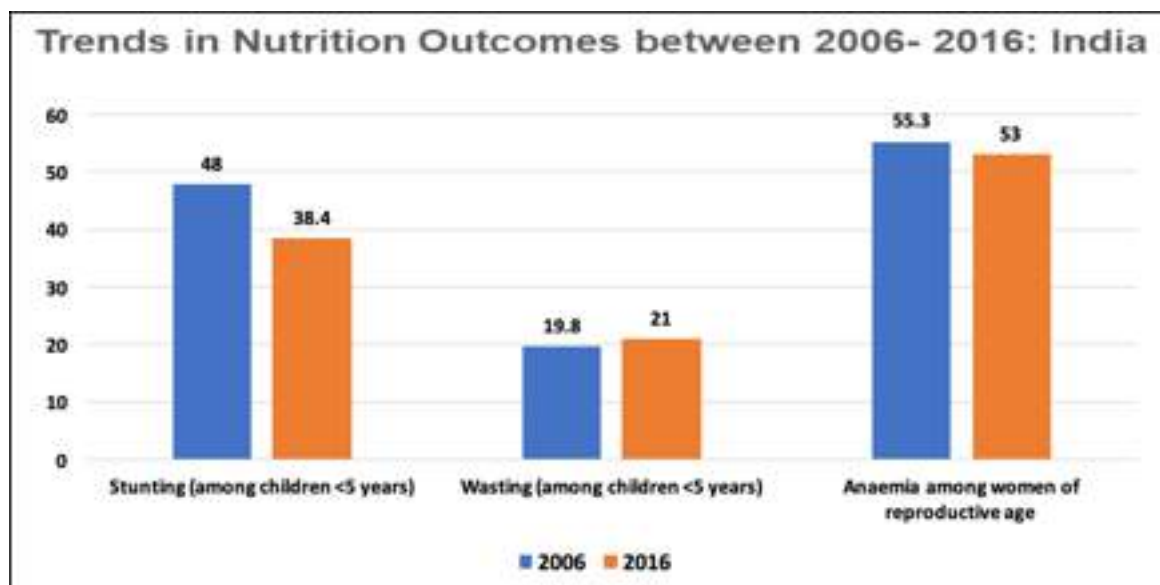
Trade agreements are legally binding commitments; the country cannot ordinarily go back on these agreements and manage its agricultural sector when required. While the country has low farmer remunerations, hunger and low productivity to tackle, signing binding trade agreements only serves to restrict the policy space to solve these issues. Such agreements will impede our ability to control input prices, raise MSP, expand the PDS, and so on.

C) FOOD, NUTRITION AND AGRICULTURAL MARKETS

Agriculture has more or less been studied from a macroeconomic perspective. While that is important, the social dimension of agriculture is also crucial.

I. THERE IS HUNGER AND WIDESPREAD FOOD INSECURITY IN INDIA

There are fairly discouraging broad trends on food security in India. The malnutrition indicators of wasting, stunting, and being underweight are showing positive signs, but the improvement is too little too late. The figures below are in percent of population:



Courtesy: Dr.Vandana Prasad

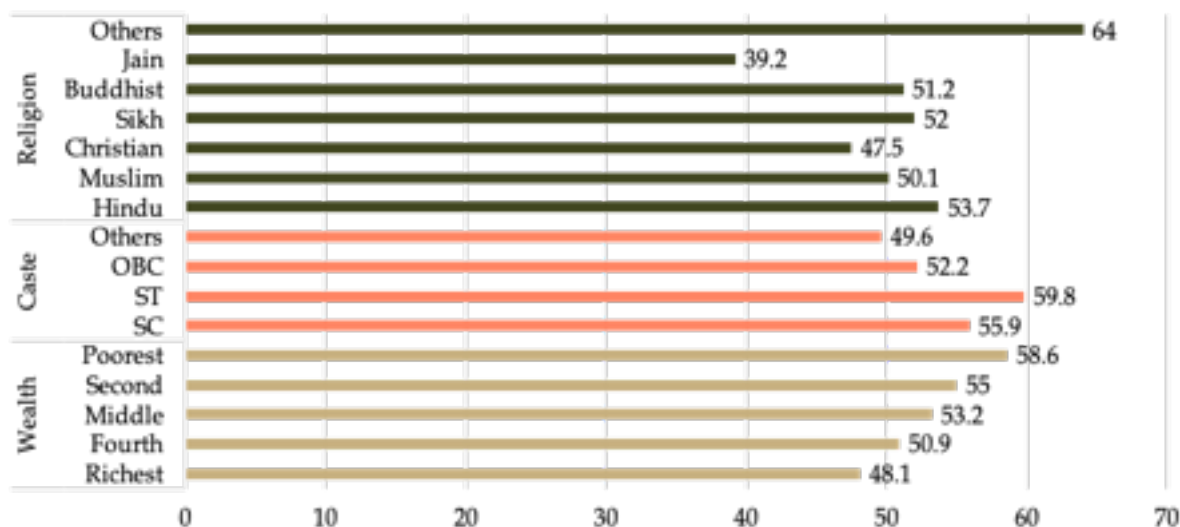
Source: NFHS 3 and NFHS 4

A study from 2019 shows that only 6 per cent of the children in the 6-23 months age group received a minimum acceptable diet. Among 5-9 year-old children, about 35 per cent had an egg at least once a week, and fewer than 40 per cent had fruits at least once a week.⁸ India ranks 102 in the Global Hunger Index in 2019, out of a total of 117, and is the lowest-ranking country in the South Asian region. There is also a rising trend of obesity, itself a kind of malnutrition.

II. FOOD INSECURITY REVEALS INEQUALITY AND NUTRITIONAL DEFICIENCIES

The average figures, however, hide a great level of distributional inequality. 20 percent of the children in the 10-19 age group in the poorest wealth quintile consumed eggs at least once a week, while 46.5 percent of those in the richest quintile did so. 20.7 percent of the children in this age group in the poorest wealth quintile consumed fruits once a week, while 66.8 percent in the richest quintile did so. The percent of children classified as being stunted is 41.5 percent for Scheduled Tribes, whereas it is 26.8 percent for "others". Almost half (49.2 percent) of the children in the poorest wealth quintile are stunted, while 19.4 percent are so in the richest quintile. Averages also hide gender imbalances: 50.8 percent urban women are anaemic, while 18.4 percent of urban men are anaemic. For the rural population, this figure is 54.2 percent for women and 25.2 percent for men.

There are wealth, caste and religious differences in percents for anaemia even among women:



Courtesy: Dr.Vandana Prasad

Source: NFHS 4

Field surveys conducted by PRADAN from 2014-2019 in 5 states shows the sources of food and nutritional outcomes. Of 4,914 respondents, about 55 percent depend on two or more sources for cereals. Usually, the sources are farm and ration shop. About 32 percent depend on two or more sources for fruits and vegetables. Usually, the sources are the market and the farm. This means that fruits and vegetables often need to be bought, unlike cereals. Diets are consequently largely devoid of fruits and vegetables, as well as of protein. This leads to starvation deaths, malnutrition-related deaths, anaemia and other micronutrient deficiencies.

III. AGRICULTURAL POLICY CAN BE CHANGED TO IMPROVE NUTRITIONAL OUTCOMES

One of the best ways to improve the nutritional content and diversity of diets is to encourage the cultivation and consumption of millets. Barley and pearl millets (bajra) are protein rich; jowar is high in fibre content; finger millet is calcium-rich; oats are a good source of phosphorus and magnesium. But millets are fast becoming food for the rich, because their distribution through PDS is not encouraged. Some states, like Karnataka, have made efforts to make millets accessible and affordable through PDS. We also have to find ways to increase food and vegetable intake. We have to stave off chemical pesticides and increase biodiversity in agriculture. We have to ensure that different kinds of oil are consumed over just one kind of oil.

Overall, we need to increase diversity in food intake to improve nutrition; this involves incentives for planting diverse crops. It also involves redesigning the PDS to distribute diverse food items. Currently, the PDS predominantly distributes rice and wheat.

Nutrition is a farmers' issue. Some farmers' groups used to believe that the PDS was keeping the prices of agricultural produce low. However, it is now accepted that the PDS is important even for farmers to get adequate remuneration, as it ensures government procurement. Farmers are also purchasers of food and PDS ensures they save on food expenses. More fundamentally, we have to think about how to mitigate the opportunity cost of eating versus selling food for the farmer.

CHAPTER 4: SOLUTIONS TO PROBLEMS IN AGRICULTURAL MARKETS

A) COOPERATIVES ARE A TRIED AND TESTED ALTERNATIVE

The experience of the Brahmagiri Development Society in Kerala provides valuable clues for where cooperatives are appropriate as an agricultural marketing solution and where they are not. It is a social cooperative, sidestepping the Kerala Cooperative Societies Act of 1969 in order to bypass bureaucratic control. It nevertheless has state government representation on its Board of Directors and is provided budgetary support by the government. It was formed after farmers' movements when international coffee prices crashed in the early 2000s and coffee farmers in Wayanad faced indebtedness and suicides. It was found that only 10 percent of the value of the commodity accrues to the farmer, because the industrial processing unit is not under their control. It was then proposed by many farmers' unions that industry should come under the ownership of the farmer and the worker as a collective.

Its experience has shown that state regulation is imperative for cooperatives to function well. Many cooperatives can be captured by large farmers, and appropriate regulation and institutional design can prevent capture. The cooperative is also open to the idea of group contracts.

It is important to remember that cooperative laws are an extension of the existing socio-economic situation. They do not automatically promote the interest of workers and peasants; this has to be actively brought about. Social enterprises are a possible alternative to cooperatives in states where cooperatives have a poor reputation due to widespread capture, and where capture or political interference are highly likely.

B) CONSUMER MOVEMENTS CAN STRENGTHEN COOPERATIVES

Marketing outlets that represent the cooperative sector, on the lines of Co-op stores in the UK, should be explored. In India, an example of a cooperative with a marketing network is Kudumbashree. In addition to cooperative shops, fair price tags can also be used for product differentiation in usual shops. These tags would indicate that a certain minimum part of the value of the product flows to the producer. There can also be mechanisms to sell a minimum level of locally produced goods in stores. With all its problems, online retail also provides opportunities for cooperatives to position and differentiate their products.

All these measures would survive on the back of a strong consumer movement that prefers cooperative products. Such a movement has to be cultivated and encouraged. On the other hand, cooperatives should also be careful of catering merely to a well-off niche of consumers.

C) TERRITORIAL MARKETS AS AN ALTERNATIVE?

In debates at the Food and Agriculture Organization (FAO) and with the support of many civil society organisations, territorial markets – as opposed to global food systems – are now being proposed as a solution to connect smallholders to markets. In the words of these organisations,

“We propose to call the markets in which the majority of smallholders are engaged (and through which most food consumed in the world is channelled) “territorial”, because they are situated in and identified with specific areas. The scale of these areas can range from the village up to district, national or even regional, so they cannot be defined as “local”.

These markets are directly linked to local, national and/or regional food systems. They are inclusive, diversified, and perform multiple economic, social, cultural and ecological functions. They are most remunerative for smallholders as they provide them with more autonomy than global value chains.

These organisations recommend that governments use policy to support territorial markets where they exist and to create conditions for new territorial markets to exist. Specific recommendations on pricing policy, public procurement, standards and credit are made. The underlying emphasis is that governments should see agricultural markets as more complex than formal agribusiness value chains, and thereby help smallholders flourish by promoting the kinds of markets that benefit them.

In the Indian context, we have to take into account that existing inequalities even in territorial markets obstruct access. We have to be able to tackle differentiation within smallholders, rooted in the production system, while designing policies for territorial markets.

D) POLICIES TO IMPROVE NUTRITION SHOULD BE PROMOTED

To arrest the deterioration of FCI and the rolling back of procurement, it is imperative to protect the PDS and even to expand it, both in terms of coverage as well as variety of goods. Pulses, oilseeds and millets can be included in PDS.

Procurement can also be made more decentralised. The government can procure a variety of crops based on the crops grown and consumption patterns in different areas. It can further integrate procurement with the Integrated Child Development Scheme and Mid-day Meals for children in schools, strengthening its own procurement system and improving nutritional outcomes at the same time.

E) OTHER RECOMMENDATIONS

Instead of demanding 1.5 times return over the cost of production, farmers' organisations should consider demanding that state regulation of inputs be brought back in order to bring input costs down. For returns, the demand can be formulated such that no crop ought to have a return which is less than a certain minimum subsistence level. This will ensure different rates of return for different crops. It also opens the door for incentives to cultivate crops which are not water intensive.

The shift of a large section of the population out of agriculture is inevitable, and thus the state has to ensure that the transition is equitable and fair. This requires diversification of the crop system as well as a growth in processing infrastructure. The problem is that only corporations are demanding diversification and processing facilities at the moment. These demands need to emerge from the farmers' movements so that the gains from the shift accrue fairly. Business expansion by itself will most likely occur only in a few areas. Due to the high investments required in this sector, a cooperative model might be necessary. Farmers' movements will have to study these models and explore possibilities with Farmer Producer Organisations (FPOs) to develop this infrastructure. For horticultural crops especially, procurement cannot be extensive without cold storage.

A growing problem is that of climate variabilities. We are seeing unseasonable monsoons, which affects crop yields but also logistics. This uncertainty will only increase and will require infrastructure investment.

REFERENCES

- 1 Jha, Somesh. (2019). Consumer spend sees first fall in four decades on weak rural demand: NSO data. *Business Standard*, November 15.
- 2 Jitendra. (2019). Fortified rice scheme to create Rs. 3,000-crore market for just five big firms. *Down To Earth*, 17 September.
- 3 Gurumurthy, Anita and Deepti Bharthur. (2019). Taking Stock of AI in Indian Agriculture. *IT for Change*.
- 4 Study conducted by Alternative Law Forum, Bengaluru in 2019.
- 5 Aggarwal, Nidhi, Sagarm Jain and Sudha Narayanan. (2016). The long road to transformation of agricultural markets in India: Lessons from Karnataka. *IGIDR Working Papers*.
- 6 Kamra, A., & Ramakumar, R. (2019). Underestimation of Farm Costs: A Note on the Methodology of the *CACP Journal*, 9(1), 112-126.
- 7 Rawal, Vikas and Dorian Kalamvrezos Navarro (eds.). (2019). The Global Economy of Pulses. *Food and Agriculture Organization of the United Nations*, Rome.
- 8 Prasad, V. And Dipa Sinha. (2019). Dietary deprivation: Diets sans diversity. *Frontline*, November 8.

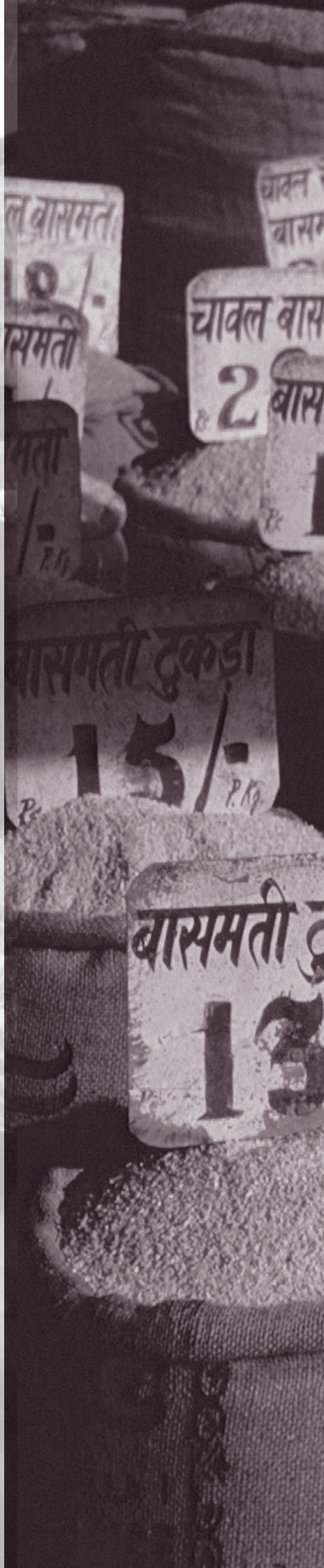
ANNEXURE 1

Programme Schedule of the Symposium on 'Indian Agricultural Markets: Policy, Challenges and Alternatives', held at India International Centre, 10-11 December, 2019

DAY 1: 10 DECEMBER, TUESDAY	
0945-1000	Registration and tea
Session 1 1000-1145	OVERVIEW OF INDIAN AGRICULTURE AND CONTEXTUALISING AGRICULTURAL MARKETS <i>Reforms and Challenges in Agricultural Markets:</i> Abhijit Sen (Former Member, Planning Commission) <i>Situating Agricultural Markets within the Agrarian Crisis:</i> Vikas Rawal (Professor, Jawaharlal Nehru University, New Delhi) <i>Moderator :</i> S.P. Shukla (Former Finance Secretary)
Tea break: 1145-1200	
Session 2 1200-1330	COST AND PRICES I: PUBLIC PROCUREMENT <i>Underestimation of farm costs and its implication for setting MSP:</i> Ashish Kamra (Researcher) and R.Ramakumar (Professor, Tata Institute of Social Sciences, Mumbai) <i>Public Procurement and Access to MSPs: Village level evidences:</i> Biplab Sarkar (Assistant Professor, PES University, Bangalore) <i>Moderator:</i> Vikas Rawal (Professor, Jawaharlal Nehru University, New Delhi)
Lunch: 1330-1430	
Session 3 1430-1545	COST AND PRICES II: PRICES AND INTERNATIONAL TRADE AGREEMENTS <i>Price Volatility across Markets:</i> K.M.Shivakumar (Professor, Tamil Nadu Agricultural University) <i>International Trade Treaties and Impacts on Agricultural Prices:</i> Ranja Sengupta (Third World Network) <i>Moderator:</i> Benny Kuruvilla (Focus on the Global South)

Tea break: 1545-1600	
Session 4 1600-1715	FOOD, NUTRITION & AGRICULTURAL MARKETS <i>Status of Food and Nutrition in India:</i> Vandana Prasad (Peoples' Health Movement-India) <i>Reforms in PDS and FCI:</i> Dipa Sinha (Right to Food Campaign) <i>Moderator:</i> Ranja Sengupta (Third World Network)
DAY 2: 11 DECEMBER, WEDNESDAY	
Session 5 1000-1130	REFORMS IN AGRICULTURAL MARKETS <i>Reforming Agricultural Markets:</i> Sudha Narayanan (Associate Professor, Indira Gandhi Institute of Development Research) <i>Contract Farming and Model Lease Law:</i> Sukhpal Singh (Professor, Indian Institute of Management Ahmedabad) <i>Moderator:</i> Mekhala Krishnamurthy (Associate Professor, Ashoka University)
Tea break: 1130-1145	
Session 6 1200-1330	RETAIL AND DIGITALISATION IN AGRICULTURAL MARKETS <i>Retail Marketing in Agriculture:</i> Dharmendra Kumar (FDI Watch) <i>Digitalisation in Agricultural Marketing:</i> Jai Vipra (IT for Change) <i>Impact of Online Marketing on Agricultural Small Retail:</i> Shobha S V (Alternate Law Forum) <i>Moderator:</i> Sukhpal Singh (Professor, Indian Institute of Management Ahmedabad)
Lunch: 1330-1430	
Session 7 1430-1600	ALTERNATIVE APPROACH AND POLICY <i>Experience of Peasant and Workers' Collectives in Kerala :</i> P. Krishnaprasad (All India Kisan Sabha) <i>Experience of Collective Agro-based Marketing in Himachal Pradesh:</i> Bhupendra Mehta (Society for Technology and Development) <i>Concept of Territorial Markets:</i> Ranjini Basu (Focus on the Global South) <i>Moderator:</i> D. Raghunandan (All India Peoples' Science Network)





FOCUS ON THE GLOBAL SOUTH

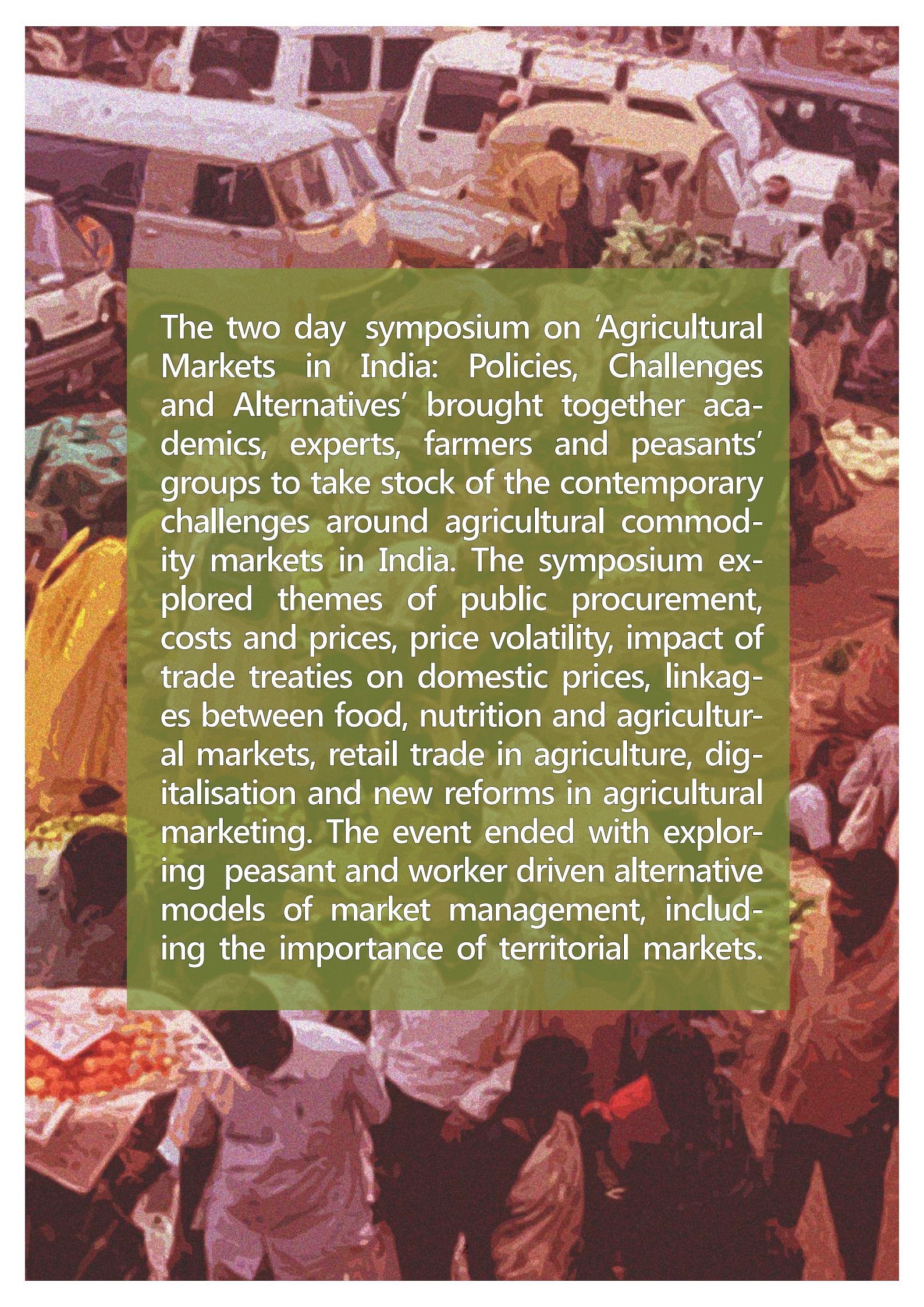
Focus on the Global South is an Asia-based regional think tank that conducts research and policy analysis on the political economy of trade and development, democracy and people's alternatives. It works in national, regional and international coalitions with peoples' movements and civil society organisations and has offices in New Delhi, Manila, Phnom Penh and Bangkok.



**ROSA
LUXEMBURG
STIFTUNG**
SOUTH ASIA

ROSA LUXEMBURG STIFTUNG (RLS)

The Rosa Luxemburg Stiftung (RLS) is a Germany-based foundation working in South Asia as in other parts of the world on the subjects of critical social analysis and civic education. It promotes a sovereign, socialist, secular and democratic social order, and aims to present alternative approaches to society and decision-makers. Research organisations, groups for self- emancipation and social activists are supported in their initiatives to develop models which have the potential to deliver greater social and economic justice.

The background image is a vibrant, slightly blurred photograph of a bustling outdoor market. In the upper portion, several white vans and trucks are parked, with people loading or unloading goods. The lower portion shows a dense crowd of people, mostly men, some wearing traditional Indian attire like dhotis and shirts. They are surrounded by various market stalls and piles of produce, including what appears to be orange-colored items like tomatoes or pumpkins. The overall atmosphere is one of active commerce and daily life in a rural or semi-urban setting.

The two day symposium on 'Agricultural Markets in India: Policies, Challenges and Alternatives' brought together academics, experts, farmers and peasants' groups to take stock of the contemporary challenges around agricultural commodity markets in India. The symposium explored themes of public procurement, costs and prices, price volatility, impact of trade treaties on domestic prices, linkages between food, nutrition and agricultural markets, retail trade in agriculture, digitalisation and new reforms in agricultural marketing. The event ended with exploring peasant and worker driven alternative models of market management, including the importance of territorial markets.