



A farm worker in a paddy field: Rice & wheat make up an overwhelming proportion of public procurement in India | Thomas G. (Pixabay)

The uniqueness of agriculture calls for continued & not less government intervention. Reform of Indian agriculture is needed, but this must be to enhance state capacities and strengthen regulatory oversight. What would be a "better government that is better"?

Over the past 30-40 years, all over the world, the word "reform" has come to acquire a very specific meaning. Summed up as the Washington Consensus, it proposes reducing the role of government and moving towards greater privatisation, liberalisation and globalisation of economic activities. This "consensus" has now almost acquired the status of what Pierre Bourdieu, in his classic *Outline of a Theory of Practice*, called "doxa"—beliefs that are "taken for granted, self-evident and undisputed", producing for the established social order "the naturalization of its own arbitrariness" (Bourdieu 1972, 164).

Since reform, by definition, is taken to mean only one thing, sector after sector is compulsively sought to be moved in this direction, even if overwhelming evidence over many years from all over the world indicates that it is the state that has played the leading role in provisioning the most critical aspects of life: water, sanitation, education, health, food and nutrition. Totally ignoring lessons from this experience, over the past two decades Indian policy-makers have repeatedly suggested that agriculture must also be freed from what

neoconservatives call “the dead hand of regulation” (Wilson 1971). As rural India has seen quite unprecedented distress for some time now, the solution proposed is simple: get the state out of the way, give farmers their freedom and everyone will live happily ever after!

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It is the aim of this brief essay to argue that there are certain very specific characteristics of agriculture as a sphere of production, as also crucial elements of the socio-historical context, which imply that the Indian state must continue to intervene in multiple markets and make critical investments to ensure the welfare of both farmers and consumers. Yes, there is a need for reform but that is very different from the Washington Consensus. As I have argued elsewhere regarding water (Shah 2021), each sector of the economy has distinctive features and reform must be defined with reference to these *differentia specifica*. In general it is not so much a question of larger or smaller government. The way forward lies in the maxim: “better government is better” (Echebarria 2001).

Specificities of agriculture and the balance of power

To any student of Economics 101 it may appear, contrary to what I am arguing, that of all lines of production, it is agriculture that seems like a textbook case-study of the successful operation of free markets, with innumerable buyers and sellers in 'perfect competition' with each other. But specific realities of the agricultural sphere of production, as also the forms of power embedded in our historical context, demand that this textbook be rewritten.

1. The farm is not a factory

There are at least three ways in which the farm is very different from a factory, and this has significant implications for policy:

a. Returns to scale

Due to a variety of limiting factors, ranging from the uncertainties of the weather to soil fertility and water availability, increasing returns to scale are very difficult to achieve for most farmers. This underscores the need for the right kind of public investment in agriculture.

b. Unique use-value characteristics of land and distinctive nature of peasant calculus

Economies of scale allow producers in industry to make profits by cutting unit costs even as prices fall, while those who fail to make the cut get eliminated from competition. However, in agriculture, the process of concentration and centralisation of capital does not proceed the way it does in industry: “In modern urban industry, the household and the unit of production are entirely separate entities. In agriculture this is not so” (Kautsky, in Banaji 1976, 33). This means that members of the family can be drafted to work on the family’s farm, as also in other farm and non-farm work, to supplement the income of the household. Thus, an indigent agricultural enterprise need not necessarily be forced to sell its land, as it can survive on agricultural and non-agricultural wages.

This phenomenon is quite widespread in India today, with so many farmers deriving a majority of their income not from farming but by working as labourers. The Socio-economic and Caste Census reveals that of the 9 crore rural families who draw their main income from unskilled manual labour, 4 crore are small and marginal farmers. Through overwork and self-exploitation, peasant farmers are able to cling on to their land. Those who regard this as irrational behaviour forget that land is a form of insurance against multiple forms of risk and a bulwark against the deeply exploitative caste and class relations these farmers have endured for centuries. Historically, the caste system had excluded many of them from ownership of land, by the very fact of their belonging to socially 'despised' communities. India's tribal communities face the triple whammy of "internal colonialism, resource emasculation and subjugation to interlocked modes of exploitation wielded by a non-tribal axis of power" (Shah *et al* 1998, 139).

This phenomenon has converse implications for farmers at opposite ends of the power spectrum: the rich face limits to their drive to accumulate land, while for the poor it reflects their extreme vulnerability as participants in agrarian markets. As a result, contrary to classical expectations, what we get in agriculture is pauperisation rather than de-peasantisation (through loss of land) (Krishnaji 2018), pointing thereby to the need for a very different conception of reform.

c. The climatic annual cycle

Nicholas Georgescu-Roegen's *The Entropy Law and the Economic Process* is a landmark work in the history of economics. While its path-breaking contributions to ecological economics are well recognised, equal attention has not been paid to its insights into the key differences between the production processes in agriculture and industry. In a paper where he first developed these ideas, Georgescu-Roegen suggests that unlike in a factory, production processes in agriculture cannot be arranged in line: "they can be arranged only in parallel, all beginning at the appropriate phase of the climatic annual cycle in each place" (Georgescu-Roegen 1969, 524).

So vital is the dependence of terrestrial life on the energy received from the sun that the cyclic rhythm in which this energy reaches each region on the earth has gradually built itself through natural selection into the reproductive pattern of almost every species, vegetal or animal (Georgescu-Roegen 1972, 250).

The exceptions that prove this rule are places like the island of Bali where the weather remains almost unchanged through the year. But in general, agricultural production is seasonal. The dependence on the monsoon in India highlights the need for public investment in water. And seasonality also means that every crop is harvested by all farmers of that crop, at the very same time. Since 86% of India's farmers are 'small and marginal', cultivating less than 2 hectares of land, they are too poor to afford warehousing facilities and are compelled to immediately bring their harvest to the market.

2. Price inelasticity of demand

What compounds matters for farmers, who come to the market at the same time as each other, is that during a bumper crop, while prices fall, the resulting rise in demand is not enough to salvage incomes, especially for those producing food crops. Being basic necessities of life, the demand for food crops is typically price inelastic, which means consumers will not demand very much more, even when prices fall. Thus the revenues earned by farmers, compelled to sell immediately after harvest, necessarily decline. For these farmers, the best of times is also the worst of times! Correspondingly for poor consumers, unregulated markets for foodgrains mean that during a drought they either starve or get pauperised, being forced to buy very expensive commodities, conveniently hoarded up by traders.

3. Interlocked modes of exploitation

Dependence on usurious moneylender-traders and the operation of a deeply exploitative grid of interlocked markets afflicts a majority of India's farmers. The story begins with the credit market where desperate borrowing at usurious interest rates (often as high as 60-120% per annum) creates a debt trap from which it is virtually impossible to escape. The repayments due are 'adjusted' through exploitative practices in the input, output, labour, and land-lease markets. The moneylender is not merely a source of credit; he often combines the roles of input supplier, crop buyer, labour employer, and land lessor. 'Real' rates of interest are then not just the rate charged in the credit market. They are implicit in the lower price paid for produce sold, exploitative wage rates, and rents charged for land leased. This interlocked grid works in tandem with the oppressive caste system as a powerful nexus of exploitation, with the poorer, 'lower' caste farmers, facing a cumulative and cascading spiral of expropriation.

Bhaduri (2006) provides an insightful account of how this system works against small and marginal farmers. The only collateral these borrowers can offer is future labour service, future harvests, or the right to use already encumbered land. The lender is in a powerful position to undervalue these not easily marketable collaterals. This transfers the risk of default from the lender to the borrower. Monitoring is no longer an issue as the borrower is far more worried about losing the collateral than the lender is. There is also great incentive for charging usurious rates of interest because default will only mean that the lender grabs the asset offered as collateral. The moneylender could even be said to prefer default to repayment. This is an extraordinarily ingenious but utterly exploitative relationship, which has sustained itself over centuries in India.

Better government is better

All the above reasons provide a strong case for state intervention in agricultural markets in India. Of course, as Dani Rodrik has argued, for all markets to even exist and to work effectively requires

an extensive set of formal institutions that govern markets: tax systems that pay for public goods such as national defense and infrastructure, legal regimes that establish and protect property rights, courts that enforce contracts, police forces to sanction violators, bureaucrats who design and administer economic regulations, central banks that ensure monetary and financial stability, and so on. The rules of the game are enforced by a formal, typically governmental apparatus" (Rodrik 2012, 15-16).

What is more, markets are not ahistorical, God-given parts of Nature. They are artefacts of human creation, embedded in society, reflecting the balance of power in that particular context, at that specific time (Jacobs and Mazzucato 2016). These features are even more relevant in the case of agricultural markets, which is why advanced capitalist countries massively subsidise and support their farmers, even as they quite duplicitously insist that countries like India must not, if they want to remain part of the World Trade Organization.

In recognition of the above factors, the Indian state has made interventions in multiple markets and undertaken some investments in agriculture. I will now describe these and suggest ways in which they need to be 'reformed'.

1. Diversify public procurement

The Food Corporation of India and the Agricultural Prices Commission were both set up in 1965. The idea was that as farm output rose with the Green Revolution, farmers would be assured that their surplus would be bought by the government at a price that high enough to leave them a margin after covering their costs. The crops thus procured were then made available to consumers at subsidised rates through the Public Distribution System (PDS). Thus government intervention protected farmers during bumper crops and dipped into the buffer stock so developed to protect consumers during droughts. This is how India got its much vaunted food security over the past several decades.

However, the Green Revolution also sowed the seeds of its own destruction, leading to the current grave farming crisis. More than 300,000 farmers have died by suicide in the last 30 years, a phenomenon completely unprecedented in Indian history. There is growing evidence of a steady decline in water tables and water quality. It is also clear that the yield response to the application of increasingly expensive chemical inputs is falling. Indoria *et al* (2018) show that the average crop response to fertilizer use has fallen, which has meant higher costs of cultivation without a corresponding rise in output. The promotion of monoculture, with more and more land under one crop at a time and year-on-year production of the same crop on the same land, has greatly impaired the resilience of farm systems in multiple ways.

When we examine India's water crisis more closely, we find that around 90% of India's water is consumed in farming and of this 80% is used up by rice, wheat, and sugarcane. Farmers continue to grow these water-intensive crops even in water-short regions primarily because of an assured market for rice and wheat in the form of public procurement. An overwhelming proportion of public procurement in India consists of just rice and wheat. What is worse, public procurement covers a very low proportion of India's regions and farmers (Khera *et al* 2020).

This reflects the fact that the primary target of procurement is the consumer, not so much the farmer. Thus, procurement gets limited to what is needed to meet the requirements of consumers. This also showed up in the way imports of pulses were ramped up during 2016-18, even though it had been decided to try and expand procurement of pulses. The latter suffered as a result and pulse growers were the losers.

Thus, the pathway for reforms becomes very clear: *we need to greatly expand the basket of public procurement to include more crops, more regions and more farmers.* If done right, this single reform would secure multiple win-wins: higher and more sustainable farmer incomes, greater water security and better consumer health. Procurement must be local and follow the logic of regional agro-ecology, so as to incentivise farmers to grow such crops in each region that are suited to its environment. Shah and Vijayshankar (2021) make detailed calculations for 11 major states in India, which show how huge volumes of water could be saved if cropping patterns are diversified to include a variety of millets (rightly called 'nutri-cereals' now), pulses and oilseeds, which are better suited to the agro-ecology of each region. To incentivise farmers to make this change, governments must include them in procurement operations. The locally procured crops should then be incorporated into anganwadi supplementary nutrition and school mid-day meal programs. This would mean a large and steady market for farmers, while also making a huge contribution to tackling India's twin syndemic of malnutrition and diabetes (Lancet Commission 2019), since these crops have a much lower glycemic index, while providing higher content of dietary fibre, vitamins, minerals, protein and antioxidants.

To clarify, this is not a proposal for open-ended public procurement. That would be neither feasible nor desirable. The argument is for diversification of the procurement basket to include crops suited to local agro-ecologies. A useful benchmark could be 25% of the actual production of the commodity for that particular year or season (to be expanded up to 40%, if the commodity is part of the PDS), as proposed under the 2018 PM-AASHA scheme, which has not yet been implemented as visualised. Without such an initiative, the announcement of Minimum Support Prices for 23 crops every year is reduced to a token ritual, with little benefit

to most farmers.

Reports from the ground in one state that has mustered the requisite political courage and imagination to significantly diversify its public procurement to include nutri-cereals under the Odisha Millets Mission, speak of the overwhelming enthusiasm, especially among hitherto typically excluded tribal farmers, who rode horses and mules, to wade through rivers and cross multiple hills to reach government procurement centres (Dinesh Balam, *personal communication*). This is the kind of reform and outreach all states need to pursue, with support from the centre.

2. Strengthen, expand and reform the mandi system

India has a long history of physical, primary regulated, markets or *mandis* to safeguard farmers from exploitation by large retailers. This network needs to be greatly expanded. Today, we have a total of 2,477 mandis and 4,843 sub-mandis and just about 17% of farm produce passes through them. It has been estimated that India needs a mandi for every 80 sq.km., so that farmers can access them within a radius of 5 km. This means we need around 42,000 mandis to reach the vast majority of farmers, who are currently forced to sell their produce in distress at the farm gate (NCF 2006).

Of course, along with expansion, the mandis are in need of urgent reform. A recent survey on mandis in different regions of the country has come up with an excellent list of suggestions of the reforms these markets require (Chatterjee *et al* 2020). Rather than moving in the direction of weakening or dismantling mandis, we need to make their functioning more transparent and farmer-friendly, on the lines suggested in this report.

3. Democratisise the formal credit market

The nationalisation of 14 banks in 1969 was a landmark intervention in the rural credit market to improve access to reasonably priced credit in rural India. The recent clamour for re-privatisation of these banks overlooks the fact that at the time of nationalisation not even 1% of India's villages were served by banks and the share of banks in rural credit was a mere 2% (Shah *et al* 2007). It is the easier availability of credit that fuelled the investments that drove India's Green Revolution. Even today these banks are the biggest formal source of credit at tolerable interest rates in rural India.

However, here again major reforms are urgently required because the policy of "social coercion" adopted after bank nationalisation achieved only limited success. Dependence on usurious rural moneylenders actually grew after strict profitability norms were applied to public sector banks in 1991. Over the past decade, very promising progress has been achieved in many parts of India in resolving the trade-off between access to affordable credit and banking profitability. This has happened through the democratisation of formal credit, made possible by the program of linking women's Self-Help Groups (SHGs) with public sector banks. This partnership has made inexpensive credit available to the poorest sections of rural India, as banks have been able to reduce transaction costs and improve profitability because of the extraordinary repayment record of SHGs.

Much greater state support is needed for the SHG-bank linkage program to reach critical mass, so that we can tackle the root of the problem of farmer distress, which lies in unregulated, free credit markets, which are so deeply exploitative precisely because they are free!

4. Change the composition of farm subsidies

The Green Revolution had a “commodity-centric” vision, exclusively focused on productivity of a given crop, by specifically targeting soil nutrients. This view was atomistic, assuming that “parts can be understood apart from the systems in which they are embedded and that systems are simply the sum of their parts” (Norgaard and Sikor 1995). It was also mechanistic, in that relationships among parts were seen as fixed, changes as reversible, and systems presumed to move smoothly from one equilibrium to another. The soil was seen essentially as a stockpile of minerals and salts, with crop production being constrained, as per Liebig’s Law of the Minimum, by the nutrient least present in the soil. The solution was to enrich the soil with chemical fertilisers, where the soil was just an input-output machine, a base with the physical attributes necessary to hold roots. The result has been exhaustion of soil fertility, loss of soil organic matter, depletion of water tables, fall in water quality, rising costs of production and negative farmer incomes.

There is, therefore, a strong case for exploring agro-ecological alternatives to chemical farming that view the soil as a complex, interacting, living eco-system; to be cherished and maintained so that it can become a vibrant circulatory network which nourishes the plants and animals that feed it. These ‘nature-based solutions’ (Nesshover *et al* 2017) reduce dependence on expensive external inputs and have already shown promising results in India (Kumar 2020).

While the government has begun to speak in favour of these alternatives, the pattern of subsidies is still overwhelmingly biased towards chemical farming. The subsidy for chemical fertilisers in the 2020 union budget was around Rs 80,000 crore. Subsidies must now shift to support production of organic inputs and payments for farm eco-system services, such sustainable agriculture practices and improving soil health. This can also generate rural livelihoods, especially if the production of organic inputs is taken up by federations of SHGs and farmer producer organisations.

5. Build powerful farmer organisations

A solitary small or marginal farmer has no chance, as consumer or producer, when confronted by powerful forces in the market. The only way the vast majority of India’s farmers can leverage the market is if they build powerful organisations of their own. The immense possibilities in this direction have been well recognised in recent years. However, these fledgling efforts require strong state support to realise their full potential. And they must align with the paradigm shift needed in Indian agriculture, without which they risk the danger of reinforcing the vicious cycle of debt that farmers currently find themselves in.

6. Rhizomatic farm extension

For a new agriculture to take roots also requires strengthening and reorienting the farm extension system, which is currently in tatters. Agricultural extension played a key role during the Green Revolution. But the system was a kind of top-down persuasive and paternalistic technology transfer, providing specific recommendations to farmers about practices they ought to adopt. The focus now must shift to building a critical mass of Community Resource Persons, farmers trained in all aspects of agro-ecology, as ambassadors of this new approach, working in a truly ‘rhizomatic’ manner, allowing for multiple, non-hierarchical points of knowledge representation, interpretation, and sharing: for a “rhizome has no beginning or end; it is always in the middle, between things, interbeing, *intermezzo*” (Deleuze and Guattari 1987).

7. Democratise water and redefine relationship with nature

As we have explained in detail elsewhere, the problems of Indian agriculture cannot be solved without addressing the deepening crisis of water. The focus of investment has to shift away from building more large dams and endless drilling for groundwater, as they are now only aggravating the water crisis. What we need is the democratisation of both surface and groundwater governance and management, with active involvement of primary stakeholders, led by women, and public investments based on an understanding of the interconnectedness of different elements of the water cycle, which has been lacking in water policy thus far (See Shah and Vijayshankar (2021)).

8. Expand and redesign rural infrastructure

India needs to urgently reverse the trend of falling investment in agriculture. But fresh investments must be aligned with the necessary paradigm shift in farming, which requires:

- a. Widespread and affordable facilities for testing the maximum residue level of chemicals in farm produce, as per regulations of the Food Safety and Standards Authority of India, without which there will be no guarantee that the produce meets mandatory health safety standards.
- b. Large-scale and separate processing, storage and transport facilities are also needed for the output of 'natural farmers', so that it does not get contaminated by the produce of conventional chemical farmers.
- c. Careful attention to moisture and temperature during the storage of pulses. Dry and cool pulses can be stored for longer periods. This demands major investments in new technologies which are now easily available.
- d. For crops like millets processing remains an unaddressed challenge. Millet-processing infrastructure needs to become a priority so that farmers can increasingly move up the value chain even as they diversify their cropping pattern.

Conclusions

Ever since the Second Five Year Plan was initiated in 1956, right to this day, the central plank of Indian economic policy has been to get people off the land and move them into industry and urban areas. However, even after all these efforts, the United Nations estimates that in the year 2050, around 800 million people will continue to live in rural India, a large proportion of them employed in farming and related occupations. It is imperative that Indian policy-makers understand before it is too late that farmers are not going to disappear any time soon. Given this unique Indian demographic transition, reforms in agriculture need to be put in place at the earliest, especially bearing in mind what a complete nightmare our urban metropolises are for current and future migrants.

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What is more, in a context characterised by grave and growing inequalities, as also a historically skewed balance

of power, no reform can succeed that does not seek to strengthen the position of the weak and the excluded. This requires both state and civil society action. A sector already dominated by powerful private players and plagued by low quality government intervention can only be reformed by radically enhanced state capacities and qualitatively better regulatory oversight, deepening democracy in the process; rather than by opening up spaces for more predatory action by those already entrenched in positions of overwhelming power in the economy.

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