# TO INDUSTRIALISE, DO AGRICULTURE

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*Is the bond between the tiller and his land starting to ebb? Farmers from a village in Uttar Pradesh protested in 2013, not against land acquisition but for the State laying of its earlier plan of acquisition. They hoped that the lump sum compensation amount would help them move out of poverty. Is it then farmers want to move out of agriculture if there is an option? It is true that agricultural incomes are declining – but still a substantial proportion of India's population depends on agriculture for their livelihood. The article argues farming will continue to be an important driver of the economic chances of millions and for India to grow at 9%, the targeted agriculture growth must be about 4% a year. However, the agricultural sector is neglected by policy makers and there has been a lack of investments in agriculture for a long time. Better recognition is required of the role of agriculture in Indian economy, its role in improving food insecurity, and most importantly, the farm sector's own role in propelling the non-farm sector. The article concludes with a plea to invest in cutting edge research in agriculture and not merely on e-commerce digital technologies. Steps must be taken to ensure agricultural credit goes to small and medium farmers, not commercial farming companies masquerading as poor farmers.*

## INTRODUCTION

In India, there is something sacred about farmlands. As one famous Bollywood song of yesteryear put it (albeit somewhat misleadingly given our pathetic yields), what grows on the country's fertile tracts are not mere crops, but "gold, diamond and jewels". Therefore, farmers have violently resisted moves by the government to take over their land for big projects. Despite a crushing majority in the lower house of Parliament, the present National Democratic Alliance (NDA) government had abandoned the idea of a national land-acquisition law because of political opposition, preferring to leave it to individual states to make their own calls.

Is the bond between the tiller and his land starting to ebb? Uttar Pradesh saw a one of a kind farmer protests in 2013. Villagers near Kannauj were not protesting against land acquisition, as one would expect. Rather, they were upset that their farmlands were not being acquired, despite an earlier proposal to do so, for laying what is now a fast lane expressway connecting Lucknow and Agra. The acquisition would have meant a chance out of poverty[1]. All of them had plans of how they would use the lump sum compensation money, but their hopes were ruined. The farmers concluded, it was better to give up farming if they had the means.

The National Sample Survey's 59th round on the Situation Assessment Survey of Farmers, 2003, revealed that 60% of Indian farmer households wanted to remain in agriculture. The rest 40% wanted to move out. In 2014, 61% of farmers surveyed by Lokniti, an academic institution, said that they would like to quit if they had a choice (CSDS 2015). Indeed, being in agriculture means periodically moving in and out of crises because of a truant southwest monsoon, the summer rainfall system that is the lifeblood of Asia's third largest economy, where roughly 60% of the net sown area does not have assured irrigation.

India is a country whose fortunes are structurally tied to the farm sector. One, when large sections of the population depend on agriculture, directly or indirectly, farm growth can cut poverty twice as fast as industrial growth. Two, according to one calculation, 1% rise in agricultural output raises industrial production by 0.5% and national income by 0.7% (Kapila 2009). Despite these structural linkages, the crisis in agriculture is taken for granted, as something existing out there and nothing much could be done. It is clear that our country is anchored in agriculture but our vision of development is not.

Ask any head of the government about their singular goal. Intuitively, the answer will be 'development'. Development is central to third-world politics. In the 20th century, as nation after nation broke free from the yolk of colonial rule, they realised that they had to draw up a development agenda to end poverty, to be relevant in the global economic order and to 'catch up'. The pursuit of development is sometimes a pathological race. There's an urgency to 'develop'.

One of the most notable features of economic development is an inevitable structural transformation, from agriculture to manufacturing.

That is how nations prosper. There is no other way. The shift, however, is not straightforward at all. Evidence shows industrialization cannot succeed if agriculture fails. Modern industrial development, which is the goal ostensibly, will always be delivered from the nourishing womb of agriculture (Mellor 1983).

In India, agriculture is something more than the sum of food production and a means of livelihood. It is a way of life. It is the primary profession to which the largest voting bloc belongs. The farmer is not only a producer of food commodities, but also is viewed, as a selfless citizen of sweat and toil working to feed the country. The farmer is a political force, a proud member of Gandhi's village republic and whose well-being is a social responsibility. This is not the same as farmers being viewed as an economic agent. Such is the distorted image of the Indian farmer in the nation's political imagination.

As a political constituency, farmers have always been addressed to in some form or another. The current NDA government has stated its headline agriculture sector objective as doubling farm income. If it is about doubling nominal farm income, that should not be very difficult as this has happened before. If the government means raising real ( inflation-adjusted) incomes, it would be absolutely great but this looks way too ambitious. Which of the two things exactly the government aims to raise – nominal or real incomes is not clear (Haq 2016).

## THE BACKSTORY

Today, Indian agricultural output is roughly keeping pace with population increase. In the previous era, farmers depicted as the heroes who feed the country could barely feed themselves. During 1965-66, a back-to-back drought was menacing. Food output dropped by 36% in two years. In the1940s, 1950s and 1960s famines killed millions. A repeat famine was what many saw coming. Paul and William Paddock, in their book *Famine 1975! America's Decision: Who Will Survive?* prophesied a Malthusian horror story of population rising faster than food output and declared countries like India "foredoomed".

India had signed off on a humiliating agreement with the USA called the "Public Law 480" to qualify for food aid. Food aid carried the risk of political compromises because aid invariably comes with conditionalities during the Cold War era. The cost of transporting food with ships from the United States was sometimes more than the value of food being imported. The USA once stopped desperate wheat shipments for 48 hours in the middle of a drought (Haq and Chowdhury 2016).

Led by the then farm minister C Subramanium, India hunted for a solution to the problem of going to international donors for food. A breakthrough came when the country chanced upon a fertilizer-responding high-yielding spring wheat variety from CIMMYT, an international farm research organisation. A similar variety of "Indica" rice came from the Philippines-based International Rice Research Institute.

Nearly 18,000 tonne of their seeds were dispatched to food-bowl states of Punjab, Haryana and western Uttar Pradesh. With a breakthrough policy framework comprising minimum support prices, fertilizer subsidies and irrigation cover in these pockets, an incredible "green revolution" struck welcome roots. Within years, the results showed and India became self-sufficient in food grains. From being a net importer of food and producing just 82 million ton of food grains in 1960-61, India in 2013-14 produced a record 263.2 megaton of food grains, which has not been surpassed yet.

The impact of this so called green revolution is now fading. It was actually a brown (wheat) revolution in the name of a Green Revolution. Its spread was limited, the crops that benefited were limited and farmers who adopted it were limited too. The policy framework that achieved this rightly focused on subsidies. Over time however, the government over-depended on subsidies while neglecting investment.

The government's economic survey 2015-16 captured this aptly:

> *Indian agriculture, is in a way, a victim of its own past success—especially the green revolution. It has become cereal-centric and as a result, regionally-biased and input-intensive (land, water, and fertiliser). Rapid industrialization and climate change are raising the scarcity value of land and water, respectively. Evolving dietary patterns are favoring greater protein consumption."*

At this point, let us consider some numbers to put things in perspective. India is the world's second-most populous country. It has the largest number of farmers. It also has the largest number of food-insecure people. Nearly half of all Indians are still directly dependent on agriculture for a livelihood or income. Rural Indians make up 68% of the population. Yet, agriculture's contribution to national income is declining quickly. It accounts for about 14% of India's GDP (OECD/FAO

2014). While the incomes coming out agriculture have been declining, the number of people dependent on it has not declined.

Enhancing productivity in agriculture is fundamentally the biggest challenge in the path of economic transformation. Economists have understood this challenge, which is typical of most developing economies. Nobel laureate Arthur Lewis, often referred to as the father of development economics, made this point decades ago with his famous dual-sector model. In countries with large populations, relative to available capital, there is an "unlimited supply of labour" in the subsistence (farm) sector, where marginal productivity of labour is zero and often negative. In other words, agriculture continues to be a cesspool of "disguised employment". Imagine a factory employing 100 people, of whom, if it were to sack half, productivity would remain the same.

Despite a fast declining share of agriculture in GDP, agricultural development is critical. For India to grow at 9%, the targeted agriculture growth must be about 4% a year. Farming therefore will continue to be an important driver of the economic chances of millions. There has to be better recognition of agriculture in India's economy, its linkages to rural poverty, its role in improving food insecurity, and most importantly, the farm sector's own role in propelling the non-farm sector. Public investment however remains low. For instance of 18.5%, which is the total share of Gross Capital Formation (GCF) to GDP in agriculture (2004-05 Series) in 2010-11, the state's share was only 2.8% (Government of India 2015). Assume, as Lewis showed, there ought to be a shift of employment from farm to the non-farm formal sector. Even if such a shift was to take place, agriculture is long going to be critical, discussed further in the following section.

## SCIENCE, NOT JUST TECH

It is not uncommon for governments to have an "urban bias", as is often alleged. Growing inequality in India could mean, as Nobel winning economist Angus Deaton says, that the "rich capture more than their share of political power, so that the state stops serving the majority of people" (Haq 2015) . According to economist Michael Lipton, a tacit urban bias is one of the reasons why the poor stay poor. Smart inventions and solutions are often developed for the urban consumer, rather than the rural. Consider the current technological idealism in the form of digital startups sweeping the country. The *Economic Survey 2015-16* states, India has about 19,000 technology startups, most of which are consumer and financial services. These had $3.5 billion in funding in the first half of 2015. Eight Indian startups belonged to the so called ‘Unicorn’ category, which is a club of ventures valued at $1 billion or more. Yet, according to a survey done by this writer from the Tracxn website, fewer than 10% of these cater to the farm or social sectors.

Lipton shows that in most nations, $1 worth of investment in agriculture will result in two to three times higher output than in other sectors. Yet foreign aid and domestic savings, he demonstrates, tend to be disproportionately hogged by non-agriculture sectors (Meier 2005) .

The rate of investment in agriculture in the 80s and 90s were between 8-12%. These years roughly coincide with the 6th and 10th five-year plans. With such low spending in agriculture, except for input subsidies, farm growth hobbled at about 2.4%. In contrast, public investments, along with reforms, in other sectors were over 35%. This low-investment phase in agriculture was reversed only with the 10th and 11th five year plans (2002-07 and 2007-12) (Meier 2005) .

The positive externalities of agriculture are worth considering. Sufficient food output has implications on health, saves crucial foreign exchange, which would have gone into buying imports, and keeps inflation in check. High food prices affect both net food importers and exporters. Food inflation negatively impacts the poor more because they spend a higher proportion of their income on food. Agriculture also provides raw materials for many sectors. Rural savings and surpluses support manufacturing by creating demand for consumer goods.

According to a Citibank research report, in a year of good monsoon, the rural market in India accounts for nearly half of all motorcycle sales. Kuznets called this “the demand in one sector for goods from another – a market contribution”. He distinguished this from a factor contribution, where resources from agriculture are loaned to support industrialization. If such resource transfer from the subsistence to the capitalist sector does not take place, industrialization suffers from smaller surpluses and capital accumulation as well as lack of markets (Simon Kuznets, *Economic Growth and Structures*, New York 1965).

The problems in Indian agriculture require a new deal. Policymakers have celebrated the Green Revolution for too long and even before they could realize, the technology had run its course. The first signs in the form of diminishing returns emerged in the 1980s, when yields began falling. The consequences of a fading Green Revolution are now showing up. The violent agitations by Jats and Gujjars – agrarian communities, who have greatly benefited from the Green Revolution – are a case in point.

Expanding irrigation much beyond what has already been achieved is not possible due to topographical features and water availability. The way to go is to increase productivity or yields. The procurement system, whereby government buys farm produce at an assured minimum support price, has to go beyond just cereals and assistance to some selected states. The government would do well to invest in cutting edge scientific research in the farm sector, not mere e-commerce digital technologies. Agricultural credit must go to real farmers, not commercial farming companies masquerading as poor farmers. Lipton summed it up with flair when he said, "If you wish for industrialization, prepare to develop agriculture."

## REFERENCES

CSDS (Centre for the Study of Developing Societies) 2015, *State of Indian Farmers: A Report*. Available from: http://www.lokniti.org/pdf/Farmers_Report_Final.pdf

Kapila, U 2009, *Indian Economy: Performance and Policies*, 20th Edition, Academic Foundation.

Mellor J 1983, Agricultural Growth - Structures and Patterns; Accelerated Growth in Agriculture Production and Intersectoral Transfer of Resources, *Economic Development and Cultural Change.* Available from: http://ageconsearch.umn.edu/bitstream/182449/2/IAAE-CONF-142.pdf

Haq, Z 2016, "Budget 2016: Doubling farm income easier said than done, say experts", *Hindustan Times*. Available from: http://www.hindustantimes.com/union-budget/budget-2016doubling-farm-income-easier-said-than-done/story-XvZBWVLXSkYirUUfU2siEI.html

Haq, Z & Chowdhury, G 2016, 25 years of Reforms: Why India's farm sector needs a new deal, *Hindustan Times.* Available from: http://www.hindustantimes.com/business-news/25-years-of-change-why-farms-in-india-need-a-new-deal/story-9LXMbxV7BIDX54f9JvQabP.html

OECD/FAO (Food and Agriculture Organization of the United Nations) 2014, *OECD-FAO Agricultural Outlook 2014*, OECD Publishing.

Government of India 2015, *Pocketbook of Agricultural Statistics*. Available from: http://eands.dacnet.nic.in/PDF/Pocket-Book2015.pdf

Haq, Z 2015, India could be another US if inequality isn't tackled: Angus Deaton, *Hindustan Times*. Available from: http://www.hindustantimes.com/india/india-could-be-another-us-if-inequality-isn-t-tackled-angus-deaton/story-xtK8aa9YhNHzGsHVY0kpxI.html

Meier, M 2005, *Leading issues in Economic Development*, fourth edition, Oxford: Oxford University Press.