

The Agrarian Crisis and Forced Migration : Its Roots, Implications and Consequences



Focus India Publications
Oct., 2018

Supported by
Rosa Luxemburg Stiftung, South Asia

The Agrarian Crisis and Forced Migration :

Its Roots, Implications
and Consequences

FOCUS
ON THE
GLOBAL
SOUTH



The Agrarian Crisis and Forced Migration : Its Roots, Implications and Consequences

Author : Karan Rauat

Published in : October 2018

Published by : Focus on the Global South, India
To request copies contact 33-D, 3rd Floor, Vijay Mandal Enclave,
DDA SFS Flats, Kalu Sarai, Hauz Khas,
New Delhi – 110016. India
Tel: +91-11-26563588; 41049021
www.focusweb.org

Supported by : Rosa Luxemburg Stiftung, South Asia
Centre for International Co-operation
C-15, 2nd Floor, Safdarjung Development Area Market,
New Delhi - 110016
www.rosalux-southasia.org

"Sponsored by the Rosa Luxemburg Foundation e.V. with funds of the Federal Ministry for Economic Cooperation and Development of the Federal Republic of Germany."

"Gefördert durch die Rosa-Luxemburg-Stiftung e.V. aus Mitteln des Bundesministerium für wirtschaftliche Zusammenarbeit und Entwicklung der Bundesrepublik Deutschland"

Images by :

Design & Printed by : Pullshoppe, 9810213737

The contents of this booklet can be freely reproduced and quoted on the condition that the source be mentioned. Focus would appreciate receiving a copy of the text in which the report is mentioned or cited.

This is a campaign publication and for private circulation!



Contents

Introduction	5
1. Agricultural Development : Historical Review	7
2. Agrarian Crisis in the Contemporary Period	13
3. De-peasantisation and Forced Migration	29
References	40



Introduction

This Booklet deals with the Indian State's historical and contemporary agricultural policies that have aggravated the rural agrarian crises. In India, agriculture has been the primary source of livelihood for more than half of the rural workforce.

Yet, what we are witnessing today is a large-scale decline in agricultural workforce [both in terms of cultivators and agricultural labourers], a declining growth rate and a shrinking share in the country's GDP.

The decline that we are seeing in the agricultural workforce is not being absorbed by the industry, thus generating huge levels of unemployment.

This booklet argues that the agrarian distress and crisis as seen across the country today is a manifestation of 'anti-peasant' State policies since independence.

In the post-independence period, the discourse around agriculture is marked by a historic failure of the State to resolve the long standing agrarian question around agrarian reform and its caste, class and gender relations. This further shaped the pattern and nature of the agricultural growth in post-independence period in India. The neo-liberalization in the 1990s further worsened the problem and staggering numbers of farmers' suicides have been recorded in different pockets of the country, since then.

In this context, this booklet intends to analyse Indian State agricultural policies in the post-independence period and how and in what way has the agrarian crisis aggravated and its socio-economic implications, with specific emphasis on the period of neo-liberalism.

This paper is arranged into three parts;

In the first part, papers deal with the characteristics of Indian agriculture in the context of different development phases since independence.

The trajectories of agrarian changes, agricultural policies, factors, and the process associated with the differential performance of agriculture during the period of neo-liberalisation will be discussed in the second part.

The third part emphasis on the contemporary agrarian issues and response from the State as well as remedial factors those could be useful to resolve the crisis to some extent will be discussed.

1. Agricultural Development : Historical Review_____

1-A. Agriculture in the Colonial Regime

Peasants in the British Raj were forced and compelled to grow cash crops, such as Indigo, to generate more and more revenue for the colonial rulers. Before the 'Raj' what existed was a traditional 'revenue economy' wherein the main form of revenue was in the forms of an indistinguishable mix of tax, tribute and land rent (Raj et al, 1985). Trade and money relation was not new in this period, when peasants used to pay their substantial share of revenue by selling agricultural output in the local market.

As industrial revolution took deeper roots, the British regime initiated an intensive commercialisation of agriculture to meet the growing demands for raw material from India. Additionally, the American civil war had an impact on the supply of cotton for British textile mills. Higher demand resulted in the higher price for the agricultural produce, which induced peasants to substitute cash crops for food crops.

However, such commercialisation in agriculture was forced as farmers were forced to sell a major share of their farm produce in the market to meet immediate cash requirements. The traders and moneylenders contributed by forcing peasants to depend more heavily on the market for price. To pay high land revenue peasants had to seek loans from moneylenders.

In such conditions of high debt, peasants were forced to sell a significant proportion of their farm produce in the market to pay interest (Mukherjee, 1985). The British government was mainly dependent on the land revenue and surplus absorbed from Indian agriculture. An introduction of a new land tenure system in the form of permanent settlement and *ryotwari* system made land as a freely exchangeable commodity (Raj et al, 1985; Padhi, 1985). Legal recognition was given to sale, mortgage and leasing as rights associated with the ownership. Private property in land had come to be formally recognised. However, this new land settlement system created a class of wealthy landlords. The newly introduced land system of British India resulted into sub-division and extreme fragmentation of operated land, subinfeudation of holdings, insecurity of tenures, rack-renting, illegal cesses and usury (Ramakumar, 2010). On the one hand, it led to an increase in landlessness, while on the other the share of agricultural labourers both in terms of population and the workforce increased sharply. The colonial rule weakened the agrarian economy which was already characterised by severe feudal relations such as absentee landlordism, zamindari, bonded labour and the most exploitative forms of tenancy was still existing.

1-B. Post-Independence Period

National planning for the development of economy was the immediate action after independence. The five years plans as well as the agriculture policy in post-independence period never considered the reform of property rights in land, as a means of eliminating the structural inequalities in the economy and thereby the abolishment of all forms of feudal exploitation of the peasantry.

According to Ramachandran (2011), 'genuine agrarian reform alters the class relations in favour of the working people, frees demand constraints and open up home markets in the countryside, and provides a basis for broad-based productive investment'. And hence, a radical transformation of land relations was necessary for a development in the agricultural economy. Even, in the national movement for independence, abolishment of landlordism and traditional form of tenancy were main promises. During the freedom struggle, the peasantry was mobilised and inspired under an attractive slogan of 'land to the tiller'. It was the time when a number of farmers and agricultural labourers across the country joined into freedom movement in the hope of getting land rights.

As Frankel (1971) said, '- was the promise of social reform held out by large-scale initiatives for institutional change. The highest priority was assigned to rapid implementation of land reform, including security of tenure, lower rents, transfer of ownership rights to tenants, and redistribution of land' (p. 4).

Soon after the independence in 1947, land reform programme was carried out in accordance with the socialist agenda of the State with an aim to abolish the *Zamindari* system, impose land ceilings, promote land distribution to landless and consolidation of holdings. However, after the independence, the promise made was betrayed in practice by the ruling class. Though land reforms in India turned out to be a major failure, the implemented land distribution programme was proved successful in certain states like Kerala and West Bengal.

At the time of independence, Indian agriculture was characterised as extremely backward and as the residual of exploitative feudal production relation under the colonial regime. The production and productivity level was poor, irrigation was moderate, soil and seed quality was poor. Moreover, the per capita availability of food was low, and it at times falling from about 200 kg to 150 kg per person between 1918 and 1947 (Nanavati and Anjaria 1947; Athreya, 2013).

In the five-year developmental planning programme embarked upon by the Indian State soon after the independence, the agriculture policy emphasised on raising public investment in irrigation to accelerate the agricultural growth. However, over the years, the share of public

investment in irrigation declined from 20 per cent to just 8 to 10 per cent of plan outlay over the years. The slower expansion of irrigated area further slowed down the growth of crop yield. It was noted that there was no significant rise in the yields. Most of the rise in the production was an outcome of an increase in the area under cultivation (Narain 1977). The internal food crisis turned into food imports under the PL-480 scheme for the United States. The food insecurity at that time also threatened to disturb the planning process itself. And hence an increase in the agricultural production was essential to sustain industrial growth rates.

1-C. Green-Revolution Period

In the early 60s, in the response to the food insecurity and declining agricultural production, the government of India introduced a number of programmes for intensive agricultural development under the tag of New Agricultural Strategy (NAS). Under this, there was an intense push to adopt a "package" of high yielding inputs (seeds and fertilizers), new technologies, reforming agricultural research and extension services, agricultural credit, facilitating agricultural diversification to higher-value commodities and irrigation (Dantwala 1986). Such programme eventually came to know as the 'Green Revolution'.

The main focus of green revolution, as Dhanagre (1987) writes:

It was hoped that with improved farm production, not only the lasting solution would be found for the perpetual problems of rural poverty and hunger but also it would generate a new resource base – a launching pad for rural industrialization that would create new employment opportunities and would improve the quality of life at the grass roots in an appreciable measure (p 54).

The New Agricultural Strategies primarily focused to provide economic support at four levels – output price, agricultural credit support, input subsidy support, and marketing support. It was noted that adoption of the modern technology was requiring higher price incentives for the agricultural produce. Therefore, the Agricultural Price Commission (APC)¹ came into existence in 1965 and its primary task was to advise the government on determining price incentives and also to guide for the rational utilisation of land and other resources. The APC was to advise two sets of prices, i.e. a minimum support price (MSP) and a procurement price.

The Food Corporation of India (FCI) was established in 1965 to enable procurement and manage the country's buffer stock. The role of FCI was to make food available for the economically poor at the affordable price and maintain domestic price stability.

¹ In 1985 name changed to the Commission for Agricultural Price and Cost (CACPC)

The policy of nationalisation of commercial banks in 1969 and prioritisation of agricultural lending improved access to rural credit and also helped, to some extent, in breaking the clutch that exploitative moneylenders had on rural farm households (Shetty, 1977; Chavan, 2002).

The subsidy policy in the 1970s, framed to reduce the economic burden on farmers for important inputs such as fertilisers, pesticides, electricity for irrigation turned out to be a great relief. For the regulation of the agricultural market and also to reduce the distortions in exchange, the Agricultural Produce and Marketing Committee (APMC) Act and Essential Commodities Act came into force.

Certainly, the production and the productivity during the mid-1970s was accelerated and India achieved food self-sufficiency by 1980s but the outcomes of the NAS were far below the potential. The implementation of the green revolution led to a massive transformation of Indian agriculture. High yield varieties of seeds, fertilizers, pesticides as well as electrification and mechanization transformed forces of production, which in turn created a significant impact on the rural society. Though the green revolution resulted into progressive increase in the productivity of rice and wheat, it severely had a negative effect on other important crops such as pulses and oilseeds, as its crop area declined sharply in this period and the country had to rely significantly on the import of these commodities.

It was also evident by now that the green revolution not only did not benefit a significant section of the population such as the landless but it also widened the gap between rich and poor (Griffin, 1979; Jodhka, 1994). Griffin reveals that the new varieties of seeds and the accompanying technology have not resulted in a faster rate of growth of agricultural production per head or reduced malnutrition. The green revolution accelerated the development of a market-oriented capitalist agriculture in Asia and Latin America. It has encouraged the growth of wage labour and therefore helped to create a class of agricultural labourer. It has also increased the power of landowners, and this further turned to the greater polarization of classes and built conflict.

Green revolution has had deeper impact on the attached labour. Jodhka (1994) argued that 'attached labourers did not enjoy the kind of status that made them privileged among the poor nor did they see their position as being so. Attached labour functioned more as a labour mortgage system where the labourer, in some sense, had to give up his freedom in order to avail an interest-free credit'. The benefits of green revolution could only reach certain pockets of India and benefited only the big and capitalist farmers while a substantial class of small and marginal farmers were left least affected by this program. Moreover, the level of poverty multiplied during this period.

In other words, the green revolution was confined to a certain class (rich and capitalist

peasants), some regions (Punjab, Haryana and some extent in West Bengal), and a few crops (rice and wheat).

1-D. Agriculture and Neo-Liberalization

India accepted new economic policy in the early 1990s with a focus on 'free-market policies' and 'external openness'. The global changes in the way the economies interacted, and the national policies formulated by the State had a deep impact on village economy in general and agriculture in particular. The global changes in the economy well described by Akram-Lodhi (1998) as:

National economics have become increasingly integrated into the global circuits of production, exchange and finance. Global integration has been accompanied by a strengthening of processes of globalization of accumulation, and by a seemingly lesser role for the State. These developments have affected all sectors of economy, including agriculture (p. 135).

In the new context, to understand the 'agrarian question' it is necessary to understand the neo-liberal approach to the agrarian question. It has been argued by the proponents of the neo-liberalization that the earlier policies intentionally skewed the terms of trade against agriculture through protectionist industrial and trade policies and an overvalued exchange rate (Ramakumar et al, 2009). The point being made was that once the farmers get the price right, the incentive structure in agriculture would improve, and in this regard, farmers would respond to higher prices by producing more. Therefore, liberalization of agriculture trade policy derived from a neo-classical trade theory in which, free trade and openness would increase the efficiency and gains.

A few more arguments in favour of neo-liberal agricultural economy were being put forward by the advocates. First, they argued that financial liberalization, the agriculture credit system needs to be regularized. Second, the existing agricultural marketing laws discriminate against farmers by not getting the fair price and not allowing them to interact with the buyers directly, therefore contract farming was proposed as the answer, which would benefit farmers to get assured price and their efforts at crop diversification. Third, existing land reform laws needed to be reformulated, so that farmers and private firms could freely lease the land. Such land leasing system would provide economies of scale by investing capital into agriculture. Fourth, the private sector corporate investment in new technology would accelerate the agricultural growth.

The new economic policies after 1991 significantly weakened the institutional support structure in agriculture (Ramachandran, 2011; Ramachandran et al, 2010). The protection

given under State to agriculture from import was removed resulting in a fall in commodity prices sharply.

The expansion of public sector rural banking halted, reopening the doors for the informal sector. Agriculture as priority sector advances failed. A large number of rural commercial banks were shut down after 1995 (Chavan, 2005). The public expenditure in agriculture and allied sector declined sharply especially in irrigation, research and development. The major input subsidies were cut down relative to the size of the agricultural economy. Public sources sought to be channelled away from food crops to and towards high value commercial crops. These policies led to severe 'agrarian crises' in countryside and manifestation of which were visible into farmers' suicides in different pockets of India. More than three lakh farmers across the country embraced death due to sheer ignorance of the State (Nagaraj, 2008).

2. Agrarian Crisis in the Contemporary Period_____

This section will analyse, with the help of data, the outcome of some of the agricultural policies introduced during the decades of neoliberal drive and investigate its links to the current agrarian distress. It is reasonably established that the agrarian crises as we see it today, intensified in the early 1990s as economy underwent structural changes.

2-A. Famine, Drought and Climate Change

In the recent years, the most debated topic among policymakers, academics, scientists, environmentalists and intellectuals has been climate change and its consequences across the globe, which are evident in the form of droughts, floods and other extreme climatic events.

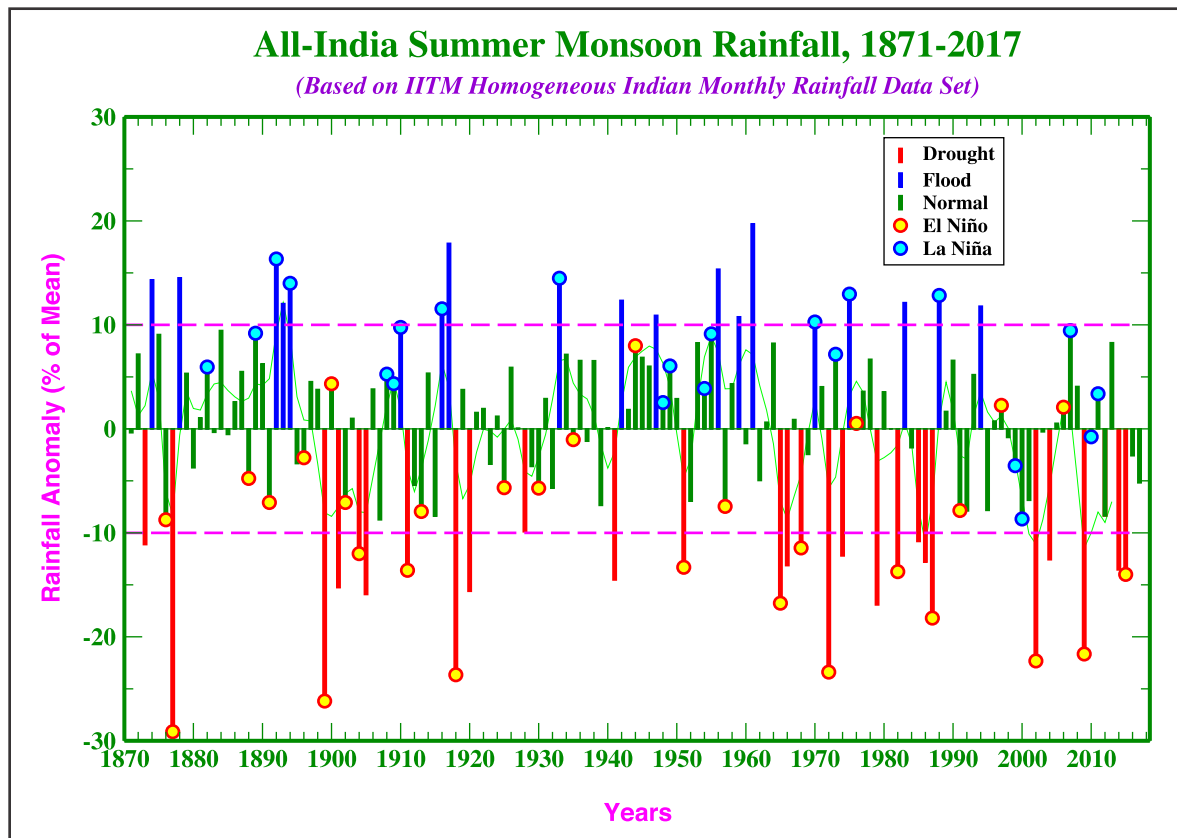
Both deficit in precipitation as well as excessive rainfall have been observed in many regions of the world. These extreme climatic changes have had a severe impact on the food security and livelihood. Moreover, the variations in the precipitation have direct impact on the level of groundwater, which markedly affects the agricultural economy and livelihood of millions of poor people and causing different types of risk (Islam et al, 2012; Kumar and Parikh, 2001).

Droughts and famine have been a historical phenomenon across the world where since 1900 around 11 million people died as a consequence of drought and another billion affected severely (FAO, 2013). Over a period of time, the duration and its intensity have increased across the globe and the phenomenon of drought is severely affecting peoples' livelihood. The Intergovernmental Panel on Climate Change projections suggest that within in the next 30-50 years, particularly in the coastal zones, a substantial number of people will be displaced due to rising sea-levels caused by global warming (IPCC, 2013).

Similarly, the Centre for Low Carbon Features' report cautioned and predicted that there will be a marked rise in the severity of droughts in different parts of Asia by the 2020s compared to 1990-2005. Considering threat to the food security in Asia, the major impact of an extreme weather fluctuation will be on wheat and maize crops in China and India, which are two major food producers (Foster et al, 2012).

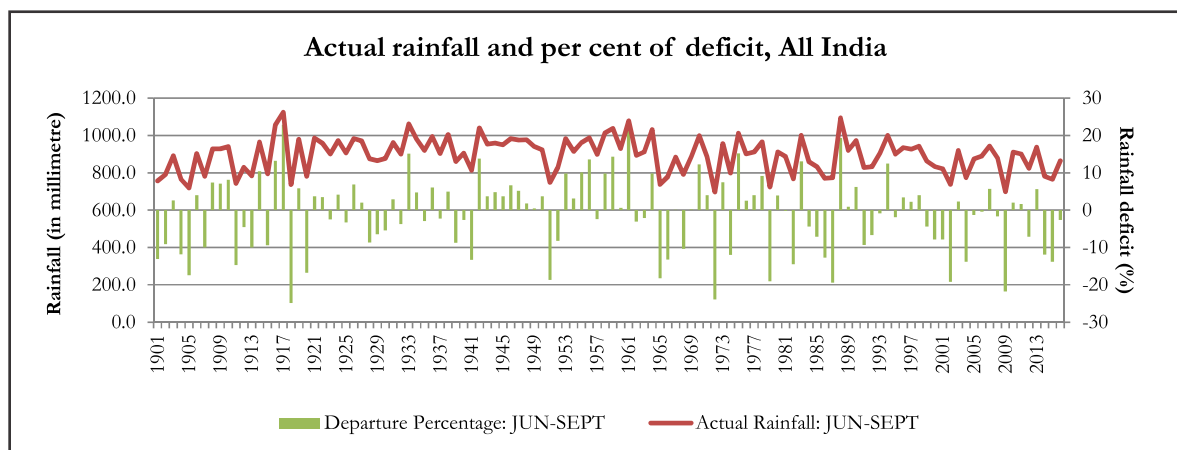
India has been experiencing prolonged and widespread drought in consecutive years (Figure 1 and 2).

Figure 1: Monsoon rainfall in India and increasing instances of drought since the 1960s



Source: <https://www.tropmet.res.in/~kolli/MOL/Monsoon/Historical/aismr1871-2017-Sep-30-2017.pdf>

Figure 2: Actual Rainfall and per cent of deficit



Source: <https://www.Indian Meteorological Department, Government of India> (See: www.data.gov.in)

Available data on the level of precipitation, it indicates that there has been a constant trend of deficit rainfall (between June and September).

Between 1973 and 2015, it was twelve times that the average rainfall in India was 10 per cent lower than the normal level (Figure 2).

Rainfall deficit and dry-spell doubles up the economic burden on farmers as they lose crop production and they have to bear additional cost for re-sowing. In India, due to the extreme weather condition, on an average 30 per cent of the crops have been lost (FAO, 2013).

Each degree Celsius increase in the global mean temperature would, on average, reduce global yields of wheat by 6%, rice by 3.2%, maize by 7.4% and soybean by 3.1%.² Empirical data studies have shown that changing extreme climatic change resulted into sharp fall in the area under rabi crops, a decline in groundwater level, soil erosion, new pest attack which negatively did impact on the household income (Udmale et al 2014). The risk of household indebtedness, loss of productive assets, distress sale of livestock, forced migration, health, etc. are the major consequences listed out (Roy and Hirway, 2007). Drought is a recurrent phenomenon and one of the major constraints in rural development in general and agriculture in particular. The small and marginal landholders, landless agricultural labourers are the most vulnerable to climatic shocks due to their heavy reliance on agriculture for livelihood and employment, limited means of production, high poverty levels, and limited social security to cope with it. These factors attribute to increase the severity of the agrarian crisis and also increased the number of environmental refugees.³

2-B. Increasing Cost of Cultivation and Economic Burden

The neo-liberalisation drive also promoted massive cut in the agricultural input subsidies. In India, input subsidies are provided mainly for fertilisers, electricity, and irrigation. Agricultural credit is considered as an indirect subsidy. The food subsidies are also provided by the State. The available data shows that the share of input subsidies in the GDP increased significantly in the 1980s and then declined from 1990s (VKR). However, the internal composition shows that share of input subsidies in electricity increased sharply and the share of fertilisers and irrigation subsidies in agricultural GDP fell massively. The proponents of the liberalisation argued against the input subsidies for three major reasons – a) it increases the substantial financial burden on the government, b) divert and reduce the public investment in other areas,

² <https://www.livemint.com/Politics/CyZL6lneKyB8pfKiXvyORJ/Each-degree-Celsius-rise-in-global-temperature-to-reduce-cro.html>

³ The terms environmental refugees defined and elaborated by Myres and Kent (1995) as, 'persons who no longer gain a secure livelihood in their traditional homelands because of what primarily environmental factors of usual scope' (p. 18).

and c) the prices of inputs do influence its scarcity value and therefore, these inputs are more likely to overuse resulting in environmental degradation and soil quality (Gulati and Narayanan, 2003). According to them, agricultural subsidies were “fiscally unsustainable...insufficient and costly to farmers” (Parikh, 1997, p.11).

However, it has been proved that these input subsidies provide farmers with remunerative and stable prices so they can adopt and afford the new modern technology to increase the yield (Chandrasekhar and Ghosh, 2004). With the decline in the input subsidies by the State as share in GDP, the input prices resulted into the sharp increase, though the output price did not respond accordingly.

2-C. Over Usage of Chemical Fertilisers and Cost of Cultivation

The new economic policy allowed entry of a number of multi-national companies into different sectors of the economy and the chemical (fertilizers and pesticides) sector was no exception. The massive cuts in input subsidies increased fertilizers prices and also raised the economic burden on the farmer especially the small and marginal farmers. In the wave of globalisation and liberalisation, many agro-chemical companies entered, destroyed the indigenous methods of disease controls, quality seeds and compelled farmers to rely on them. As a result the non-judicious (unscientific application practices, lack of awareness and safety measurements) usage of inputs such as chemical fertilisers and pesticides is emerging as a major cause of degradation of natural resources, reduction in the productivity, soil erosion, human health and environment (Devi 2010, Jayaratham 1990).

India is the fourth largest producer of the chemical pesticides in the world after USA, Japan and China. However, all top ten companies in India producing agro-chemicals are foreign firms.. Most of these companies have been banned in the European Union and other Western countries.

India is the potential market for them as the industry has been growing rapidly.

For the financial year 2015, the sector generated the value of 4.4 billion US dollar and is expected to grow by 7.5 per cent per annum to reach 6.3 billion US dollar in 2020.⁴

In other words, 4 per cent of the global agro-chemical is consumed by Indian farmers annually and that will be challenging in terms of health-related issues. Between 2007-08 and 2014-15, the total consumption of pesticides in India increased from 55.6 thousand tonnes to 69.8 thousand tonnes with 25 per cent growth. A study shows that around 800,000 people in developing country died due to pesticides since the outset of the green revolution and nearly

⁴ <http://ficci.in/study-page.asp?spid=20744§orid=7>

200,00 people in developing countries die each year because of pesticide consumption through their food (Bhardwaj and Sharma 2013, FICCI, 2017).

In recent times, there are disturbing reports coming from the Vidarbha region pertaining to human loss due to passive pesticides inhalation.⁵ Cotton and rice are the major crops here and consumed a significant proportion of pesticides (68 per cent). However, the cropped area under cotton is just 5 per cent but consumes 50 per cent of the total pesticides. Rice holds 24 per cent of the cropped area and uses 18 per cent of total pesticides. It was also noted that there is a correlation between numbers of farmers committed suicides and usage of chemical pesticides. A state-wise analysis shows that Andhra Pradesh (including Telangana), Maharashtra, Punjab and Karnataka are the top four states consuming more than 50 per cent agro-pesticides and more than 52 per cent suicides have been reported in these states.

2-D. Household Indebtedness and Crisis

The agrarian crisis and agrarian distress in India have been associated with rural indebtedness. Even many reports submitted to the government on farmers' suicides have pointed out clearly that the indebtedness among the rural households has been a major reason for farmer suicides.⁶ The five states i.e. Maharashtra, Andhra Pradesh, Karnataka, Madhya Pradesh and Chhattisgarh, where the level of indebtedness was higher and they account two-third of all farmers' suicides in the country (Nagraj, 2008).

Farmers often seek credit for good quality inputs and mechanization. Credit is also sought for non-agricultural purposes; for instance to meet expenses related to healthcare, education or marriage.

The All India Debt and Investment Survey (AIDIS) which is a part of National Sample Surveys rounds considers two aspects - the demand for credit from rural families, and the supply of credit by credit agencies, both institutional and non-institutional (Gol, 2014).

A comparative analysis of all the survey rounds indicates that between 1991 and 2012, the credit distribution from the formal institutions has been fallen considerably (See Table 1). According to AIDIS, the proportion of debt of rural-households borrowed from the formal sources fell from 64 per cent in 1991 to 56 per cent in 2012. On the other hand, the proportion of non-institutional sources increased considerably from 36 per cent to 44.0 per cent in the corresponding period. Moneylender still remained an important source of informal credit in the rural area. About 33 per cent of the total informal credit was disbursed from the

⁵ <https://indianexpress.com/article/india/vidarbha-farmers-death-blaming-death-on-pesticides-campaign-by-ngos-4933459/>

⁶ See Reports on farmers' Suicides in India submitted by Tata Institute of Social Sciences (2005), Indira Gandhi Institute of Development and Research (2006), Planning Commission (2006), Yashwantrao Chavan Academy of Development Administration (2006), Dr. Narendra Jadhav Committee Report (2008).

moneylenders. This may be due to under reporting of informal credit from moneylenders in the previous surveys.

Table-1. Proportion of debt outstanding, by source, India, 1991 and 2002, in per cent

Credit agencies	1991	2002	2012
A) Institutional agencies	64.1	57.1	56.1
Government	5.7	2.3	1.3
Co-operative society/bank	18.6	27.3	24.8
Commercial bank incl. RRBs	29.1	24.5	25.1
Others	10.7	3.0	4.9
B) Non-institutional agencies	36.0	42.9	44.0
Landlords	4.0	1.0	0.7
Moneylenders	15.7	29.6	33.2
Traders	7.1	2.6	0.1
Relatives and friends	6.7	7.1	8.0
Others	2.5	2.6	2.0
All sources (A+B)	100.0	100.0	100.0

Source: AIDIS, 1991, 2002 and 2012

2-E. Financial Inclusion or Exclusion

The main objective of the nationalisation of commercial banks in 1969 was to expand rural credit services. The regional rural banks (RRBs) entered in 1975 for effective coverage of small and marginal farmers, landless labourers, rural artisans, etc., with the view to enhance their productive capabilities. As RBI prescribed, both commercial banks and RRBs have a mandate to ensure 40 per cent of their total credit goes to different priority sectors. Out of this 18 per cent of the net credit was fixed for agriculture and allied activities, and another 10 per cent to the weaker sections. During the reform period, it observed a slower growth rate of commercial banks, a decrease in the number of rural branches (Chavan 2015).

Under the revival of agricultural credit policy in the 2000s, there was a considerable increase in the growth of agricultural credit.⁷ The growth of agricultural credit from the commercial

⁷ Under the 'comprehensive credit policy' in June 2004, the Government of India announced to double the flow of agricultural credit during the period of 2004-05 to 2006-07 by all the financial institutions. It was stated in the policy that to raise agricultural credit by 30 per cent a year; to finance 100 farmers per bank branch; to make two to three new in agricultural projects per bank branch every year; and to implement a host of debt-relief measures, such as debt restructuring, one time settlement, and financial assistance to settle loans from moneylenders (Ramakumar and Chavan, 2010).

and regional rural banks increased from 1.9 per cent between 1990 and 2000 to 19.1 per cent between 2000 and 2007 (*ibid*). The share of agricultural credit in total credit increased by these formal agencies together increased from 30 per cent in 2000 to 52 per cent in 2007 (Ramakumar and Chavan, 2014). Along with this, credit from co-operatives also increased sharply. However, such an increase in the growth and share in the agricultural credit was illusory in real terms, it has very little to do with agriculture.⁸

Critically analyzed data by the scholars provide a more comprehensive explanation of the phase of agricultural revival in the 2000s.

First, there has been a sharp increase in the agricultural credit in the 2000s from commercial banks; however, a significant share of such increase was accounted for by indirect credit as compared to direct credit.⁹

Second, under the priority credit policy, major definitional changes took place. In the new definition of agriculture and allied activities, it added new forms of financing commercial, export-oriented and capital-intensive agriculture.

Third, an expansion in the growth limits of more than Rs. 10 crores, and particularly more than Rs. 25 crores. Such expansion further helped the large-scale agribusiness enterprises.

Fourth, significant rise (more than 40 per cent) in the proportion of agricultural credit disbursed from urban and metropolitan branches of commercial banks in the 2000s.

Data pointed out that in 2011; one-third of total agricultural credit and one-fourth of direct agricultural credit were outstanding from the commercial bank branches located in the urban and metropolitan areas (Ramakumar and Chavan, 2014).

Fifth, the size of long-term agricultural loan in total agricultural credit shrunk considerably. The share of loan amounts that were less than Rs. 2 lakhs decreased from 82.6 per cent in 1990 to 44.3 per cent in 2010. On the other hand, the share of large size loans (more than Rs. 10 lakhs) in the total agricultural credit increased sharply from 1.3 per cent in 1990 to 20.4 per cent in 2010, both direct and indirect credit (*ibid*). Moreover, the credit-deposit ratio¹⁰ of rural branches commercial scheduled banks dropped down and it went back to the level of in 1991.

⁸ See Chavan (2010), 'How 'rural' is India's credit?' in *The Hindu*, August 12, 2010. <https://www.thehindu.com/opinion/op-ed/How-rural-is-Indias-agricultural-credit/article16129297.ece>

⁹ Direct credit referred as – credit given directly to the cultivator or producer in allied activities, where indirect credit is that given to the institutions that supports agriculture production such as loan given to the corporate, partnership firms, farmers' corporate associated with agriculture, loans to input dealers, agro-business, agro-clinics, loans for storage units/warehouses/godowns, loans to micro-finance institutes, Non-government organizations and RRBs for on lending to agriculture and allied activities.

¹⁰ It is the ratio of how much a bank lends out of the deposits it has mobilised. It indicates how much of a bank's core funds are being used for lending, the main banking activity.

Hence, with the heavy dependency on the private moneylender, those who have been charging an extremely high-interest rate on the one hand and a disastrous output price policy on the other, the Indian farmers have been facing acute economic stress at both ends.

2-F. Minimum Support Price

In the post-independence period, the Farm Management Studies (FMS hereafter) - started with *Studies in Economics of Farm Management introduced by the Directorate of Economics and Statistics, Ministry of Food and Agriculture and the Research Programme committee of Planning Commission* jointly - to formulate policies for the development of agriculture in six different regions of the country, representing different agro-climatic zones (Sen and Bhatia, 2004; Surjit, 2012).

The Farm Management Studies first began in 1954-55 in five regions i.e. Bombay, Madras, West Bengal, Punjab and Uttar Pradesh, and in the following year in Madhya Pradesh.

The FMS started with two specific objectives; 1) to study farm economy and production conditions, and collect farm management data from different regions of the county that would be useful to formulate national agricultural policies and farm management extension work (Sen and Bhatia, 2004).

With recommendation from the Standing Technical Committee?¹¹ on indices of input cost, following the Farm Management Studies in 1950s and 1960s for the timely and reliable estimates of cost of cultivation and cost of production of relevant crops and to pursue stable price support policy, the government introduced 'Comprehensive Scheme for Studying Cost of Cultivation/Production of Principal Crops' in 1970-71 in selected states. And later institutionalised under the Commission for Agricultural Cost and Prices (CACP) and converge of the scheme extended with respect to area and crops.¹² Every year, the Commission for Agricultural Cost and Prices sets minimum support price and procurement price for selected rabi and kharif crop based on the three different production costs, i.e. Cost A2 – actual paid out cost, Cost A2+FL –paid out cost-plus imputed family labour cost, and cost C2 – imputed cost on rent and interest on owned land and capital.

These fixed prices of the farm produce had dual intention. The MSP was to protect the

¹¹ Standing Technical Committee: On the methodological clarification, a Technical Expert Committee was set by the Government of India. Source: Government of India (1980), Report of the Expert Committee for Review of Methodology of Cost of Production of Crops, Department of Agriculture and Cooperation, Ministry of Agriculture.

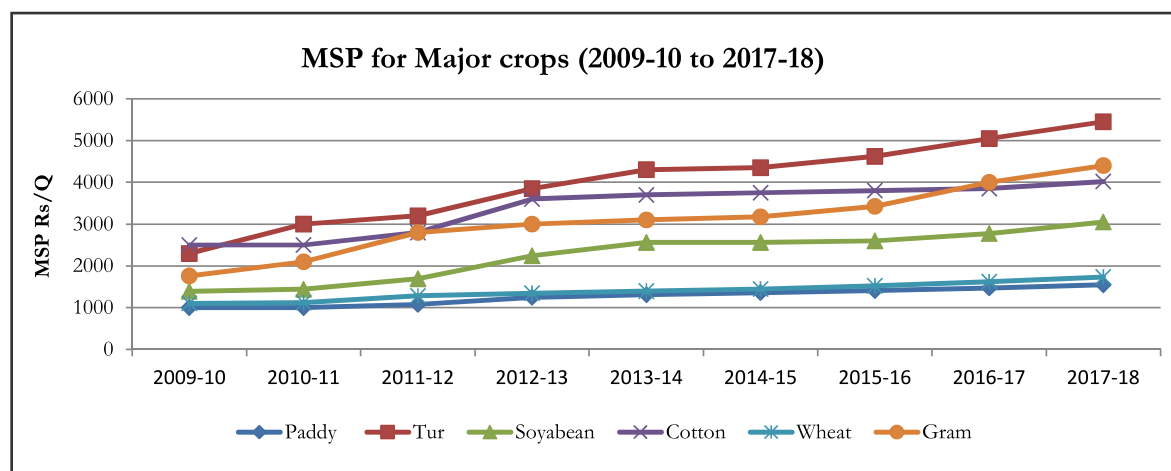
¹² CACP recommends MSPs for 23 commodities, which consisted 7 cereals (paddy, wheat, maize, sorghum (Jowar), pearl millet (Bajra), barely and ragi), 5 pulses (gram, tur, moong, urad, lentil), 7 oilseeds (ground-nut, rapeseed-mustard, soyabean, sesamum, sunflower, safflower and niger-seeds), and 4 commercial crops (Copra, cotton, sugarcane and raw jute). See www.cacp.dacnet.nic.in

farmers against excessive fall in the price during excessive or bumper production years and hence MSP ensures remunerative prices to the producers for encouraging higher investment and production.

The procurement price was intended to bring the realisation of sufficient food for the poor at affordable prices and also maintain inter-temporal price stability. The idea behind it was that if the market price for the commodity falls below the declared support price due to high production and glut in the market, government agencies will purchase the entire quantity offered by the farmers at the announced minimum price. It has been argued that the Essential Commodity Act create constraints for farmers to get fair prices and also benefit from market competitiveness. However, to control the domestic inflation rate and possible crisis, the food prices in India had been kept intestinally lower since independence.

Let's have a look over the data on the minimum support price declared time to time. Data shows that MSP for major crops increased with a slower growth rate. Between 2009-10 and 2013-14, support prices increased and later remained almost stagnant (Figure 3). The growth of support price did not respond to the increased input prices in this period.

Figure 3: Minimum Support Price, major crops



Source : [https://www.Commission for Agricultural Costs and Prices \(CACP\), Ministry of Agriculture and Farmers Welfare, Government of India; Various years. \(See : www.cacp.dacnet.nic.in\)](https://www.Commission for Agricultural Costs and Prices (CACP), Ministry of Agriculture and Farmers Welfare, Government of India; Various years. (See : www.cacp.dacnet.nic.in))

i. MSP : Fraudulent or Assurance

The farmers' agitations take place across the country, primarily because of bumper harvests and a significantly low output price. Agriculture in India has not been generating enough revenues for farmers to remain in the sector.

The National Commission on Farmers was constituted on 18th November 2004 under the chairmanship of agricultural scientist – M S Swaminathan and it submitted its final report on 4th October 2006. One of the major recommendations of the commission was that farmers must be paid at least 50 per cent over the cost of cultivation as assured price i.e. Minimum Support Price (MSP) considering Cost C2 and not A2+FL.

This has been a long-standing demand from the farmers' organisations in India. The direct price support to agricultural household help farmers to improve their household income and also make agriculture profitable. In fact, doubling the farm income of the agricultural household by 2022 has been a proclaimed target of the current Central government. Farmers' organisations have been agitating for this demand since the Commission submitted its report. The current Finance Minister in the 2018 Union Budget proudly announced that minimum support price will be set as per the recommendations of Swaminathan Commission's report. However, until today, the government has not come out openly in support of Cost C2+50 and this issue has been mired in controversy.

An analysis of the announced support prices based on cost A2+FL for major crops and per cent difference between announced and the recommended price by the National Commission on Farmers is presented in Table 2. Data shows that for announced prices by the government have been 20 to 80 per cent lower than the recommended prices considering cost C2 would have applied to determine the support price. It is also notable from the data that difference has been increasing over the period of time for major crops such as cotton, soyabean, rice and tur. For instance, the announced support price for cotton in 2013-14 was 3700 per quintal which was 43 lower than the recommended price. However, such difference increased 63 per cent lower by 2017-18. This indicates that the cost of cultivation per quintal increasing sharply.

Table 2 : Minimum Support Price and per cent of difference of NCA recommended price, in rupees and per cent, 2013-14 to 2017-18

	2013-14		2014-15		2015-16		2016-17		2017-18	
KHARIFF CROPS	MSP	NCA Diff.	MSP	NCA Diff.	MSP	NCA Diff.	MSP	NCA Diff.	MSP	NCA Diff.
Ragi	1500	-69	1550	-74	1650	-88	1725	-87	1900	-86
Jowar	1500	-65	1530	-75	1570	-84	1625	-84	1700	-84
Moong	4500	-59	4600	-62	4850	-55	5225	-49	5575	-53

Nigerseed	3500	-56	3600	-67	3650	-67	3825	-69	4050	-89
Sunflower	3700	-49	3750	-55	3800	-62	3950	-68	4100	-69
Urad	4300	-43	4350	-49	4625	-45	5000	-40	5400	-25
Cotton	3700	-43	3750	-39	3800	-49	3860	-52	4020	-63
Paddy	1310	-41	1360	-40	1410	-41	1470	-41	1550	-44
Tur	4300	-38	4350	-45	4625	-39	5050	-28	5450	-27
Seasumum	4500	-38	4600	-57	4700	-66	5000	-67	5300	-61
Soyabean	2560	-30	2560	-30	2600	-40	2775	-37	3050	-44
Graound nut	4000	-27	4000	-46	4030	-56	4220	-53	4450	-38
Maize	1310	-27	1310	-33	1325	-38	1365	-41	1425	-47
Bajra	1250	-20	1250	-29	1275	-36	1330	-37	1425	-35

Source : CACP various years

Though the declared support prices have lower than what is recommended by the Commission, the Indian farmers could not get any benefit from this. There are many factors responsible for such failure. First, delay in procurement of farm produce. The Food Corporation of India (FCI) has been involved in procuring the farm produce mainly to create buffer stock and distribute at the affordable prices to the poor. The National Agricultural Cooperative Marketing Federation of India Ltd. (NAFED) NAFED – an apex organization of marketing cooperatives for agricultural produce in India procures directly from the farmers at the support price. The procurement and marketing centres are supposed to purchase from the farmers immediately after the harvesting. However, several farmers complain of delayed procurements (of at least two months), thereby forcing them to sell it to private traders at lower price, so as to pay off wages and input costs.

Second, delay in payment of procured produce by the government and this aggravated crisis in recent times. In Maharashtra, for instance, NAFED did not release due payment on time and hence with this experience large number of farmers had to sell agricultural products to the private traders at prices lower than MSP that not even fetched the production cost. For instance until March 2018, the due amount more than Rs. 1300 crore in Maharashtra alone that was not transferred in the farmers' account.

Third, there is no sufficient infrastructure i.e. godowns and gunny bags for the storage of procured farm produce.

And fourth, though support prices were extended for 23 major crops; price have always been skewed in favour of food grains mainly Rice and Wheat. There is no mechanism to purchase crops such as sunflower, ground, Jowar, Bajra etc. and hence farmers are compelled to sell their farm produce at the lower price. Additionally, it is reported widely that traders in many APMC markets denied buying farm produce at lower price and later sold to the procurement agency at MSP.

2-G. Agricultural Produce Import Policy

India's changing import policy in recent years has affected domestic agricultural prices. Despite claiming a bumper production in the recent years (2015-16 and 2016-17), the government has encouraged the import of agricultural produces; especially import of food grain (wheat, maize, pulses and non-basmati rice). Such imports have a severe impact on the farmers and pushed them in crises because they are the worst hit by the fall in the domestic prices. Between the year 2014 and 2017 (end of March) the total volume of these food grain commodities jumped by 110 times (Ghosh, 2017). As result, the falling prices in the domestic market were made less remunerative for farmers. The traders import food grain in cheap rates from outside rather than buying from the farmers in the local market. The government uses import as a mechanism to control the food inflation but it is a nightmare for farmers, particularly when domestic production jumps significantly. The State intervention to incentives the farmers and also regulate the import at this stage is necessary.

Surprisingly, on the one hand, the government is spending on imports while on the other hand, it has put restrictions on export. For instance, there is no restriction on pulses import from outside and there are quantitative restrictions on export.

In 2014-15, an export of agricultural commodities declined from Rs. 1.31 lakh crore in 2014-15 to Rs. 1.08 lakh crore in 2015-16. Whereas the import of agricultural commodities increased from Rs. 56,196 crore in 2010-11 to Rs. 140,268 crore in 2015-16 which was 150 per cent higher. Between 2014-15 and 2016-17, the pulses import increased from 4 million tonnes to 5.90 million tonnes (47.5 per cent increase). The government imported pulses when the price of pulses was sky-high in 2016 but continued in the following year too. As result, the domestic prices of Tur in India collapsed sharply to lower than the support price. India has signed MoUs with Mozambique to get pulses and hence next 5 years, India will import around 3 lakh tonnes of tur from Mozambique and also from Brazil and Myanmar (Singh et al, 2017).

2-H. Nature Plays its Role

Indian agriculture is characterised by a significant share of small and marginal farmers. Due to the limited source of irrigation, they predominantly rely on monsoon and hence uncertainty

in weather makes agriculture prone to high risk. The small and marginal farmers are the most vulnerable to the climatic shocks primarily because of limited coping strategy, poverty and limited social security measures (Kumar and Parikh, 2001).

Agriculture faces several types of risk such as natural risks which is associated with the climate variability e.g. natural hazards – flood, drought, hailstorm etc; market risk such as price fluctuation in both output and input, rate of interest, unpredictable market changes, State policies etc; resource risk like uncertain supply of labour, credit supply, irrigation, electricity, supply of fertilizers and seeds etc.; production risk such as disease and pest on crop, livestock risk, health risk, assets risk, and so on.

For example, the cotton growing farmers in Marathwada and Vidarbha regions of Maharashtra faced crop loss of worth approximately Rs.12000 crore due to the attack of pink ball-worm. Additionally, hailstorm and un-seasonal rainfall in different pockets of Maharashtra destroyed near harvest of Rabi crops. Hence, producers adopt different types of risk mechanism strategies to cope up with such unpredicted risk; however, not all the risks are preventive (Singh, 2013).

2-I. Crop Insurance: Risk Mechanism?

Crop insurance is an important coping mechanism against natural risks which protect farmers against the uncertainty of crop production that is beyond their control. Crop insurance is the financial mechanism to minimise economic burden, the impact of uncertainty and income stability. Agricultural production in India is affected by the vagaries of nature and huge damage occur due to flood, droughts, hailstorm, cyclone, attack of pest and disease the agricultural insurance plays an important role in sustaining farmers economy (Hazell et al, 1999; Sinha, 2004).

Crop insurance also plays an important role to sustain household income. The Planning Commission noted in its report that 'all farmers do not have the ability to bear downside risks and this is evident from the spate of farmer suicides when new seeds fail to deliver expected output, or expenditure on bore-wells proves in fructuous, or when market prices collapse unexpectedly. Farmers should be protected against such risks by appropriate measures. Crop insurance in India had been less popular. In 2006, only 4 per cent of the total cultivators were covered by any crop insurance. As the risks increased in recent years, the proportion of farmers covered under crop insurance also increased. In the financial year between 2016 and 2017, there was almost 40 per cent of farmers were covered (Gol, 2017).

2-J. Issues with the Insurance Schemes in India

The crop insurance in India is not popular among Indian farmers mainly due to higher

premium, limited coverage, complexity of assessment and delay in settling insurance claims. All crop insurance schemes in India have been based on a 'homogeneous area approach', except the first scheme. It is a complicated process mainly due to the problem of moral hazard, adverse selection and non-availability of valid data to measure indemnity (Nair, 2010; Sinha, 2004). Moreover, land holdings in India are highly concentrated among small and marginal farmers, weather and soil conditions are different and vary from region to region, the extent of illiteracy among these farmers is relatively high, which makes it difficult to get valid and accurate past yield data for individual insurers. The crop value in most parts of India is lower (dominated with food crops) while rates of premiums are high, which may not be affordable for small and marginal farmers, although there is subsidised insurance. Therefore, crop insurance in India is more challenging compared to developed countries due to its inherent nature. The sheer complexity of risk and an absence of relevant data to measure the accurate indemnity and inadequate risk modelling technology to measure the intensity of risk the multi-peril crop insurance failed (Nair, 2010).

The Centre for Science and Environment (CSE) analysed the performance of the recently launched crop insurance scheme i.e. Pradhan Mantry Bima Fasal Yojana (PMBFY). It was noted in their report that crop insurance mainly benefited to the private insurance companies and it did not reach to the actual beneficiary. Till 2017, the gross premium against crop insurance collected by the private companies was Rs. 15891 crore, whereas claims of Rs. 5962 crore were settled. The primary reason for the lower number of claims was delayed in the states releasing subsidy, and therefore, only 32 per cent claims were reported. Delay in claim settlement was another major reason. All claims against crop insurance must be settled in three times of yield data. However, until July 2017, claims made in the previous kharif season were not settled. The lower threshold level of yields fixed by the state governments for the determination for claims also led to a failure of the scheme (Bhushan and Kumar, 2017).¹³

2-K. Public Investment in Agricultural Extension

The Indian Council for Agricultural Research (ICAR) began in 1964 to extend the agricultural extension service. Subsequently, Krishi Vigyan Kendra (KVKs)¹⁴, Lab-to-Land programmes, and different research-based programmes initiated by ICAR in the 1970s. In all the extension

¹³ The office of Union Comptroller and Auditor General (CAG) submitted their report on the 'Performance of Agricultural Crop Insurance Schemes' in 2017. The report examines the performance of crop insurance schemes in nine states, between the period 2011-12 and 2015-16. It was pointed out in the report that the coverage under all these schemes was low, data on beneficiaries was not maintained, delays in releasing of state share and poor implementation; hence, schemes achieved very little success (Gol, 2017).

¹⁴ KVK provides need-based and skill oriented vocational training to farmers, field level extension workers and other self-employed people.

services provided by the State, dissemination of knowledge concerning seeds, fertilisers, cultivation practices is the most important. It was noted that the extent of knowledge has a positive impact on the productivity and yield (Sajesh and Suresh, 2016).

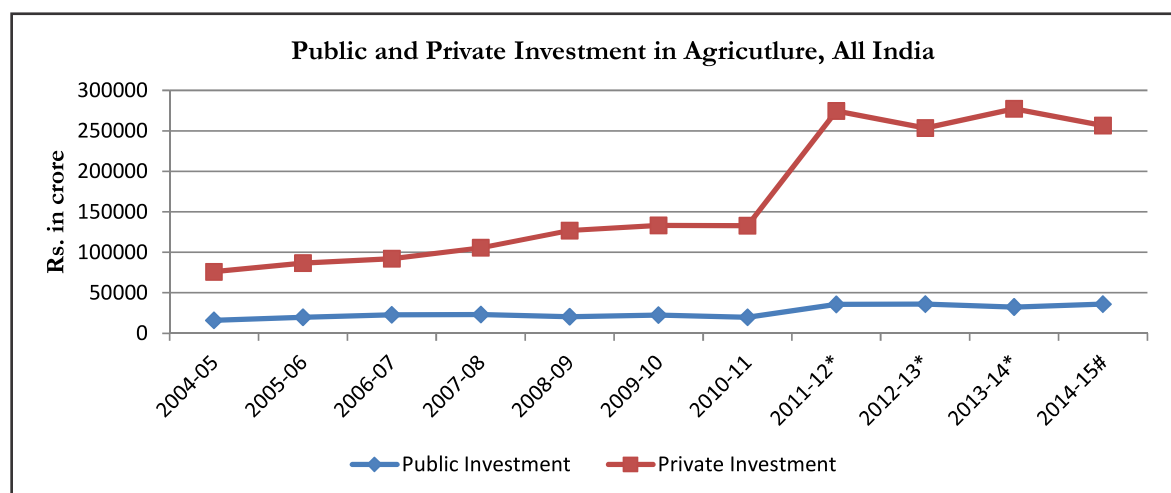
The public agricultural extension in India has performed poorly. According to the Situation Assessment Survey 2003, the coverage of government extension programmes and extension services of National Agricultural Research System (NARS) was very low and only 40 per cent of the farmers had access to any source of information on modern technology. Within this, a share of progressive farmers as sources of information was 16.7 per cent, input dealers 13.1 per cent, radio 13 per cent. The share of government extension agents as the source of information was lower at 5.7 per cent (NSSO, 2005).

There has been clear variation in access to information across the farmers in different land-size classes. All India level, the share of farmers accessed information were 54, 51 and 38 per cent in the category of large, medium and small farmers. Seed quality, crop production, fertilisers and pesticide application were given higher priority. The small and marginal farmers heavily relied on progressive farmers as a source of information and least access from government extension sources (only 4.8 per cent). On the other hand, rich and capitalist big farmers could access more from the government sources of extension services (12.4 per cent). Since Indian agriculture is characterised as the domination of small and marginal farmers (more than 80 per cent), any decline in the public investment in public extension services raises serious concerns for the future of agricultural growth of the country.

Inadequate human resource to deliver appropriate information at the ground is a serious concern. In India, there are only 1,19,048 extension workers to serve a net cropped area of 141 million hectares and 158 million operational holdings. The ratio of extension worker to the area and holding is extremely uneven. In the other words, for 1,156 hectares of the area and 1,187 operational holdings, there is one extension worker which explains the burden of work and insufficient source of information.

One of the agenda for the liberalisation of the agricultural sector was to encourage public-private partnership as well as NGO-partnerships in agricultural extension system. As a result, in since the 1990s private investments increased even when public investment declined. The recent data based on the Central Statistical Organisation (CSO) shows that public investment in agriculture has been constantly falling whereas the private investment increased from Rs. 59,909 crore to Rs. 82,484 crore between 2004-05 and 2010-11 and sharply increased to Rs. 220,434 crore by the end of 2014-15 (Figure 4).

Figure 4 : Public and Private Investment in Agriculture



Source : <https://www.CentralStatisticsOffice, Government of India>

2-L. Demonetisation and its Impact on Agriculture

During the sequential droughts between year 2013 to 2015, farmers had severely suffered from crop loss and their crop productivity was extremely bad. In the following year, with the satisfactory rainfall in 2016 and moderate production, the federal government demonetization scheme (withdrawing 500 and 1000 rupees currency notes) created currency crunches and farmers were severely affected for both sales of their farm produce as well as a purchase of inputs. The currency alteration also had an impact on the cooperative banking in the rural area as these banks have been the primary source of crop loan for farmers.

The access to institutional credit from the commercial as well as co-operative banks was halted and hence farmers had to rely heavily on private moneylenders that resulted in extreme indebtedness among small and marginal farmers.

3. De-peasantisation and Forced Migration_____

In the process of development involves a structural transformation of the economy whereby there is progressive shift both in terms of the value of output and of employment from the primary sector (agriculture) to secondary and tertiary sectors (manufacturing and service). And hence, as economies develop and societies modernise, agriculture declines (in terms of the workforce) and there is a transfer of resources from agriculture to industrialisation. The labourers in agriculture delineate themselves from the land and merge into secondary sectors. Despite structural changes in the Indian economy, the land has continued to be an important source of livelihood for a substantial section of the rural society. Thus, both historically and in the contemporary period, power relations in the Indian countryside are materially rooted in the ownership of land and control over the means of production. For the oppressed and marginalised social groups, such as Dalits and Adivasis, ownership and distribution of land are critical not just to their economic upliftment and social status but also for the attainment of a number of basic freedoms.

In India, as the agrarian question has remained largely unresolved, poverty and discrimination on the basis of caste, class and gender persist (Ramachandran and Ramakumar, 2000). Increased economic disparities, skewed land ownership, poverty, and negative farm business income the process of de-peasantisation has been initiated where a large number of small and marginal cultivator left cultivation practices and joined the class of daily wage workers in agriculture and non-farm sector (Raut 2017). In this section, the efforts in the context of agrarian crisis are made to describe the stimulating factors associated with de-peasantisation and hence forced migration in the rural area.

3-A. Agricultural Labourers as Outliner Cultivators

The process of de-peasantisation in India has sharpened in the recent period as small and marginal landholders are compelled to leave cultivation practices and join the labour force. At the surface level, census data shows that the share of the agricultural workforce (both cultivators and agricultural labourers) declined since independence. However, its internal composition indicates that the share of cultivator in the total workforce has declined significantly whereas the share of agricultural labourers increased sharply (Patel, 1952 and 1994; Patnaik, 1985; Vaidyanathan, 1986; Bhalla, 1993).

Table 3 : Distribution of cultivators and agricultural labourers in total workforce, all India, 2001 and 2011, in number and per cent

Year	Main		Marginal		Total	
	Cultivators	Agricultural labourers	Cultivators	Agricultural labourers	Cultivators	Agricultural labourers
<i>Number of workers (in millions)</i>						
2001	103.2	63.4	24.4	44.0	127.6	107.4
2011	95.8	82.2	22.9	58.2	118.7	144.3
<i>Share in total workforce (in per cent)</i>						
2001	25.6	15.8	6.1	10.9	31.7	26.7
2011	19.9	17.1	4.8	12.1	24.6	30.0
<i>Inter-censal growth rate (in per cent)</i>						
2001-2011	-7.2	29.7	-6.1	32.3	-7.0	34.4

Source : Census of India, various years

Note : data estimated for both rural as well as urban population

Disaggregated data for main and marginal agricultural workforce between two time periods i.e., 2001 and 2011¹⁵ shows, the proportion of cultivators in the agricultural workforce fell on the one hand, and the share of agricultural labourers increased (Table 3). In 2001, there were 103 million (25.6 per cent in the total workforce) main cultivators in the total workforce that decreased to 95.8 million (19.9 per cent of the total workforce) in 2011. On the other hand, the share of agricultural labourers in the workforce increased. The share of agricultural labourers in the total workforce was 26.7 per cent in 2001 that increased to 30 per cent in 2011.¹⁶ Around 34 million new agricultural labourers were added to the total workforce in the corresponding period.

Fall in overall agricultural workforce is attributed to the results of employment guarantee scheme, diminishing interest of members of cultivating families to work in agriculture, withdrawal of youth from agriculture, spread of education, higher non-farm wage rates,

¹⁵ The Census of India 2001 and 2011 provides data on the Industrial Classification of workers for main and marginal worker together. However, all earlier rounds of the Census gave similar data only for main workers. Therefore, here I have computed figures for main and marginal workers for 2001 and 2011 together and compared with main workers for all the previous rounds.

¹⁶ P Sainath, Over 2000 Fewer Farmers Every Day, The Hindu, 02/05/2013. "Between 1981 and 1991, the number of cultivators (main workers), actually went up from 92 million to 110 million. So the huge decline comes post-1991".

expanding urbanisation, and agricultural distress (Hirway, 2012, Thomas, 2012; Kannan and Raveendran, 2012; Chand and Srivastava, 2014).¹⁷

3-B. Feminisation of Agriculture and Distressed Migration

The diversification in the nature of rural employment and a major shift from agriculture to non-agricultural activities increased the household income and their access to the material possessions to a certain extent. However, with greater integration of production and labour market, there has been very little movement in the female workforce and socially marginalized castes. With the increasing rate of male migration to the cities and towns, the casualisation and feminization of agriculture activities is taking place sharply. However, the availability of employment in the non-farm sector has been more in favour of male workers.

Data based on NSSO data on rural employment, the paper shows that there was higher employment for male labours compare to female labours in the non-farm sector. In other words, women's' dependency on agriculture continued compare to the male workers; they remained confined to the agricultural activities both as self-cultivation as well as agricultural labourers. The non-farm sector has provided 38 per cent employment to the male workers and 21 per cent to the women workers in 2009-10 (NSSO).

3-C. Rural Wage Rates

The wages were lower for farm labours than non-farm wages but the growth rate of agricultural wages has been higher than of non-farm wages. Rural wages being the significant source of rural household income are the major determinant of livelihood security. Moreover, the agricultural wage is considered as a proxy to study poverty and living standard (Deaton and Dreze 2002).

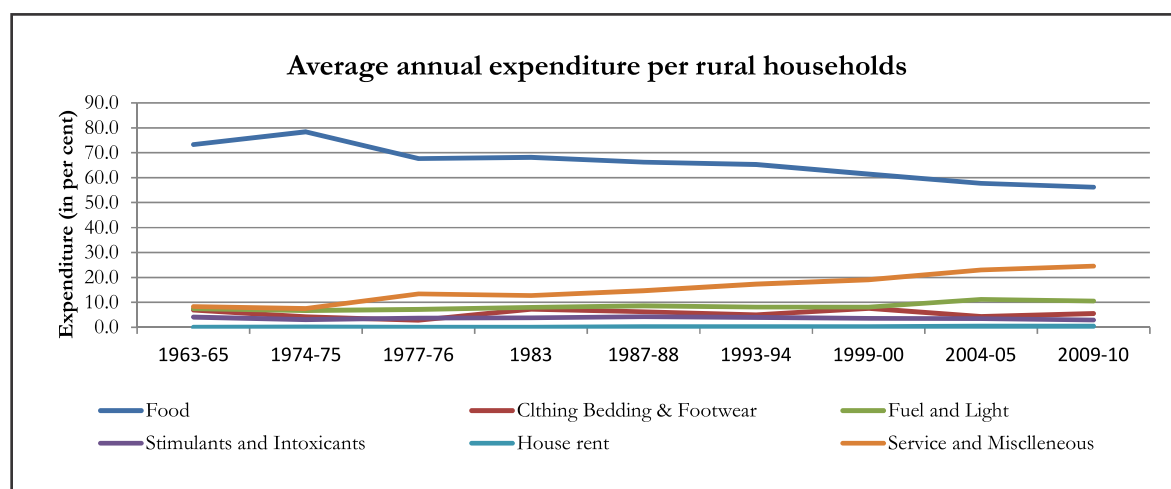
The movement of the labour force from agriculture to non-agricultural activities is progressive structural transformation which has been experienced in the western economy. On the other words, such diversification of rural labour force from agriculture to non-agriculture reduces the level of dependency on agriculture. The non-farm sector (NFS) reduced male dependency on agriculture by providing employment to some extent but increased for women. There is a strong correlation between agricultural productivity and agricultural wage rate. As the productivity in agriculture increases the rural wage rate equally

¹⁷ Scholars also have argued that the reasons for withdrawal of female workforce given above do not adequately explain the fall in the size of the agricultural labour force; they noted that the labour force is not moving out but shifting to other sectors which are 'difficult to measure' in NSSO surveys (Hirway, 2012). Moreover, Hirway also raised her concerns on the reliability of NSS data; NSS survey generally underestimates those workers who are working in scattered, sporadic and irregular informal work, those engaged in self-employment activities for survival and those engaged in the free collection of goods or in manufacturing goods for self-consumption.

stimulate. However, in the Indian context, the agricultural productivity has been consistently falling and as result, there has been large-scale distressed migration from rural to urban areas. The states with the higher share of non-agricultural GDP in the GDP pay higher wages, which implies that the growth of non-farm sector positively contributes to the agricultural wages (Venkatesh, 2013). The relative wages in agriculture have been lower than the wages in non-farm employment and hence higher wages in non-farm employment in cities and town is the main attraction for the rural working population.

On the demand side, due to lowering agricultural productivity and fluctuating output prices of farm produce, farm producer unable to offer higher wages to the agricultural labourers. As a result, a share of hired agricultural labour in total labour declined and family labour, especially female labour increased sharply (Raut, 2012). The demand for higher wages in the rural area also attributes the shift in household expenditure in the last two decades in both rural labour households (RLHs) and agricultural labour households (ALHs). Based on NSSO survey data, the average annual expenditure on food has declined from 67.7 per cent in 1976-77 to 56.2 per cent in 2009-10. On the other hand, household expenditure on health, education and clothing rose sharply (Figure 5).

Figure 5: Average annual expenditure per rural households



Source : [https://www.Computed from 'Rural Labour Enquiry \(RLE\), NSSO various rounds, Ministry of Labour and Employment, Government of India.](https://www.Computed from 'Rural Labour Enquiry (RLE), NSSO various rounds, Ministry of Labour and Employment, Government of India.)

3-D. Village: Promising Future or Despair?

Over a period of time, the rural identity in social, economic and cultural context has been changed completely. With the State apathy towards 'rural India', villages have become a negative ground of an individual's achievement – the futureless place where individual

agency is discouraged). But it also stands as the source of one's determination. The village is depicted as a place where no dreams can grow, no risks succeed, and no individual agency is possible. The youth in villages do not see their future in the village, it is a melancholic site for the village aspirants those are seeking an opportunity for the better future.

On the changing nature of the village, Gupta elaborated that the 'contemporary rural society's social and economic structures whereby the identities of the 'village' and the 'farmer' and how they relate to 'the village' and 'farming' are themselves changing rapidly (Gupta 2005). He further says, 'agriculture (in India today) is an economic residue that generously accommodates non-achievers resigned to a life of sad satisfaction. The village is as bloodless as the rural economy is lifeless. From rich to poor, the trend is to leave the village'.

Though villages are changing in terms of cultural and physical structure, they continued to be a den of inequality and poverty. The unequal distribution of land and natural resources are the primary reasons for increasing poverty, economic stagnation and distressed migration from rural to urban in India. The pattern of migration varies across the social class. The upper caste landholding (small and marginal) households move out of the village for a shorter period and mostly as a coping strategy against poverty and vulnerability. On the other hand, socially marginalised class groups have been inclined towards permanent migration to escape from caste-based oppression, discrimination and poverty (Raut, 2012).

Ashish Nandy noted that a Dalit, landless agricultural workers or a rural artisan is seeking escape from the daily grind and violence of a caste society. The village is a symbol of India's fearsome diversity and unknowability (Nandy, 2001, p.12). With the declining incentives in agriculture in India, natural calamities such as drought, unseasonal rainfall, hailstorm and flood, withdrawing of support from the State, the agriculture has become an unrewarding profession. Lower productivity on the one hand and hard drudgery on the other, the sector failed to attract the youth in the rural area but migrate to town and cities in search of higher productivity and better-remunerated employment. In fact, though half of the population is still engaged in agriculture for their livelihood, the cultivators do not wish that their children get into agriculture at any point in future. Lack of better opportunities in the rural area is the primary cause.

3-E. Withdrawal from Agriculture

A recent study based on a survey of 5000 farm household farmers in 18 states in India show that 76 per cent of the farmers would prefer to do some other work than farming (self cultivation and agricultural labour) (CSDS, 2016). Moreover 61 per cent of the farmers told that they prefer to be employed in cities because of better education, health and employment

avenues are available there. The deficiency of effective public expenditure in small-scale cultivation, rural infrastructure, poor agricultural growth and price volatility, the spread of education resulting in a decline in the perceived status of agriculture (Leavy and Hossain, 2014; White, 2012). Youth in rural India is no more interested and always looking for an escape from the village and find some other alternatives. The FAO and IFAD jointly conducted a research on the rural youth and noted that more than half of the respondents in the survey reported that low income from agriculture forced rural youth to be engaged in pluri-activity as a risk management strategy. Hence, it is necessary to expand the opportunities for generating household income from agriculture and State intervention for credit, market and irrigation (FAO-IFAD, 2012; IFAD, 2014).

3-F. Youth in Agriculture and Migration

The youth in rural India do not see their future in villages. Instead, villages have become a waiting room for aspirants. According to Leavy and Hossain (2014) there are three major factors that contributes to the reluctance of youth in agriculture: a) there is deficiency of effective public investment in small-holder agriculture as well as in rural infrastructure and marketing, b) access to land for the young people and lack of access to inputs which are unaffordable for them, and c) spread of mass education has resulted in different forms of social choice, resulting in a decline in the perceived status of agriculture as a vocation.

Leavy and Hossain (2014) have concluded in their report that 'the aspirations of young rural people are dominated by formal sector employment and modern urban lifestyle, and a general reluctance to consider farming as an employment option is found (Leavy and Hossain 2014 : P8). Such a withdrawal of the younger generation from agriculture could lead us to a food crisis in the future. Labour scarcity in the rural area further increase the agricultural wage rate and hence cost of cultivation. Caste-based agitations demand for reservation in different pockets of India such as Maratha in Maharashtra, Patels in Gujrat and Jat in Haryana has its roots in this reluctance to farm.

The National Commission on farmer under the chairmanship of Dr. M.S. Swaminathan made a comment on the disinterest of youth in agriculture and suggested, 'over-riding priority should go to fighting the famine of jobs/sustainable livelihood opportunities through the creation of economically rewarding and intellectually stimulating work opportunities in villages. This is the only way to attract and keep educated youth in villages (Gol, 2006 : P 11). Moreover, lease land could be a possible way to get access to cultivable land to the youth; this also requires a presence of corresponding forms of production organisation, land reform, upgradation of market-driven entrepreneurial skills and State support in terms of marketing and finance (Ramakumar, 2014).

3-G. Non-agricultural Employment and Labour Scarcity in Agriculture

Indian rural labour sector is undergoing drastic changes since last few decades. This change can be seen at the levels of both wages and employment. From the supply side, there has been an increase in the supply of labour due to population increase. Within the labour force, there was a significant shift from the agricultural sector to non-agricultural sectors as sources of employment. The size of the total agricultural workforce has been declining in the 1990s and 2000s (Sen, 2003, Chandrashekhar and Ghosh, 2004; Thomas, 2012). In the absolute terms, between 1993-94 and 2009-10, the net increase in employment in India was negative, and the number of agricultural workers declined by 1.8 million. The largest decline was witnessed in the period between 2004-05 and 2009-10 when the number of agricultural workers shrank by 21.1 million. On the other hand, there was a significant increase in the number of non-agricultural workers in India; however, such an increase in non-agricultural employment was largely casual in nature (Thomas, 2012). It cannot be ignored that even today, the rural economy is dominated by informal sector employment, and that formal sector employment is insignificant (Dhar, 2012).

Agriculture has no longer remained as a unique centre of economic life in rural India and hence the importance of land also needs to be reconsidered. On the other hand, with the development of capitalism and commercialisation, there is an emergence of industrial and service activities in the urban areas that changed the spatial and inter-sectoral allocation of resources and production relations in rural India. These changes had an impact on the different forms of livelihood and created a rural non-farm path of economic development (Sen 2002). From the village re-surveys in different parts of India, it was shown that the proportion of non-farm labourers and their relative family income within the cultivating household has increased significantly (Raut, 2017; Ramachandran et al 2010).

3-H. Falling Days of Employment in Agriculture

Declining number of days of employment in agriculture is a common phenomenon observed over a period of time. The only available source of data to measure the days of employment in rural households is Rural Labour Enquiry of NSSO. It provides disaggregated data for Agricultural Labour Households as well as Rural Labour Households across social groups. The average number of days of employment for male workers declined in the states and at all-India level, whereas a marginal increase was observed for female workers between 1977-78 and 2004-05 (RLE-NSSO Reports). The official figures on a number of days of employment have over-estimated and this is mainly because of the methodological issues with the calculation of full day and half day (Dhar and Kaur, 2013).

On the one hand, the official estimates provide a very high number of days of employment in

rural areas; on the other hand, scholars based on empirical surveys have noted that the number of days of employment in the rural area is not more than 6 months in a year. These scholars have the advantage of using village surveys in employment studies; such field-based surveys allow the study of links between cropping pattern and agricultural practices on the one hand, and the number of days of employment of labourers on the other, which is not possible with secondary data (Ramakumar, 2004; Mehta, 2006; Dhar and Kaur, 2013). The total number of days of employment is a result of changes in the demand and supply of labour force. An increase in the wage rates in agriculture, growing mechanisation, availability of employment in non-farm sectors (Vijay, 2012),¹⁸ growth of agricultural output, spread of education, changes in the agricultural operations, increased household income and affirmative action of the State, such as employment guarantee schemes, are all associated with the levels of employment in the rural labour market (Himanshu, 2011; Thomas, 2012; World Bank, 2012). Drought and uneven rainfall also have an impact on the declining days of employment in agriculture.

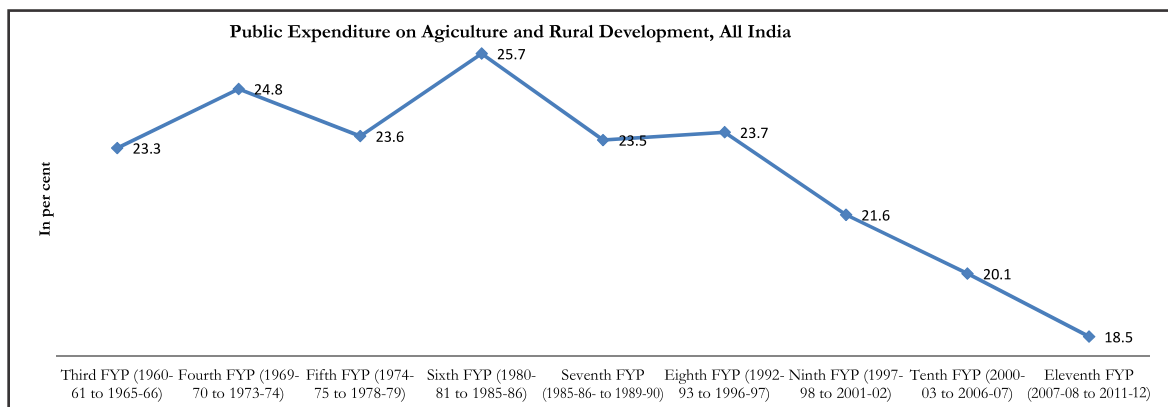
Public Expenditure on Agriculture and Rural Development

Declining agricultural growth rate (both productivity and share in GDP) and public expenditure on health and education, increasing number of agricultural labourers and declining number of days of employment among the rural households, is attributed to sharp rural-urban migration. Such disappointing agricultural growth is due to the inadequacy of public expenditure by the government. With the neo-liberal economic policies in the 1990s, the rural economy suffered relative neglect and expenditure allocated for the rural development has shown a declining trend. Though, agriculture is a 'state government' subject, the rural economy is conditioned by an overall macroeconomic policy regime, in which the Union government clearly has controlling hands.

Indian agriculture is experiencing a decline rate of growth. Past experience shows that an inadequate capital formation and declining public expenditure has paralysed growth of technological change and infrastructural development in Indian agriculture which has a negative impact on both productivity and output. The share of agricultural capital formation in gross fixed capital declined sharply from 15.05 per cent in 1980 to 10.04 per cent 1990-91 and further nosedive to 6.91 per cent by 2000-01 (Jha 2016). The public expenditure on total rural development also declined sharply over a period of time. According to Jha (2016), the share of expenditure on total rural development during the third five-year plan (1960-61 to 1965-66)

¹⁸ Vijay (2012) argued that sharp increase in the non-cultivating households on the one hand, and declined in the share of cultivating households dependent on the farm sector on the other, which could imply that both share of cultivating households and labour households have shrunk from 76 per cent to nearly 60 per cent and 11.3 per cent to 14.4 per cent respectively during the 1981 and 2002. He argued that such declined labour force could either become agricultural labourer or join the non-farm sector as artisan or other households work.

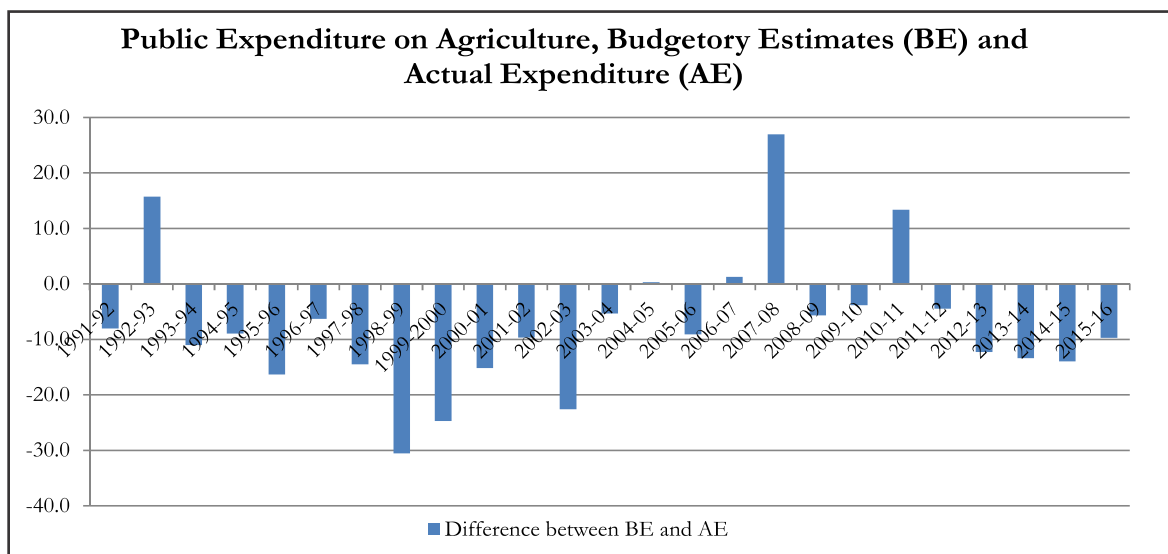
Figure 6: Public Expenditure on Agriculture and Rural Development (Jha, 2016)



Source : <https://www.jha, Praveen and Acharya, Nilachala, 2016.> "Expenditure on Rural Economy in India's Budget since 1950s: An Assessment", *Review of Agrarian Studies*, 1 (2): 134-156.

was at 23.3 per cent of the gross expenditure and until sixth five-year plan (1980-81 to 1985-86) it steadily increased to 25.7 per cent. The expenditure was mainly on irrigation, electricity and other welfare schemes. With the onset of neo-liberalisation and new economic reform period, the rural areas suffered neglect and the public expenditure allocated for agriculture and rural development shows a declining trend. A period between eighth and eleventh five-year plan, the public expenditure declined from 23.7 per cent to 18.5 per cent (Figure 6).

Figure 7 : Public Expenditure on Agriculture: Budgetary estimates and Actual Expenditure



Source: Plan Documents, Planning Commission and Budget Documents of Govt. of India see: www.data.gov.in

It was also noted significant differences between what is budgeted and what has been spent on agriculture. Data¹⁹ shows that the allocated budget for agriculture either under-spent or diverted into different other sectors or substantial reduction in the budget itself (see Figure 7). The most recent data shows that between 2011-12 and 2015-16, the annual expenditure on agriculture and allied sector was significantly lower than what was estimated. Nevertheless, the rural transformation though in a limited way created well-off households along with a significant middle-class group and simultaneously a large section of the economically backward class. The rural backwardness in the countryside is the primary reason of unresolved agrarian question in the developing countries.

3-I. Urban Bias and Rural Ignorance

However, the persisting rural poverty was caused by the development policies which have been designed by and for the people in urban areas. Though the large proportion of the population resides in the rural area, the cities and town got a major share of national resources. The development policies formulated by the 'State' have been with urban bias and at the expense of rural areas (Lipton 1977). With influence on political power, public expenditure and investment were concentrated in urban areas and received disproportionate and inefficiently high share for education, health, financial services and technology. This created villages as a shadow of development and also created a situation wherein villages have to rely heavily on cities and towns for education, health access, employment etc. As Lipton (1977) suggested that for the development of rural areas, resources should be initially directed towards developing the agricultural sector and efforts for an increase in the productivity is the pre-condition. However, the biased development policies have moulded in a way that villages have to increasingly depend on the cities and towns for better health service, education and employment.

3-J. In a Nutshell

The crisis in agriculture intensified more severely in the early 90s with the structural economic changes. An introduction of new economic policies (neo-liberalization) that weakened the State support in agriculture and rural development severely affected small and marginal farmers, agricultural labourers, poor and socially marginalized sections. There were massive cuts in agricultural subsidies; public investment in agricultural research, extension and irrigation slowed down. The availability of food per household declined and targeted public distribution system increased food prices. With banks redefining priority sector lending we witnessed a decline in the credit supply and farmers had to rely significantly on

¹⁹ Department of Agriculture, Cooperation and Farmers' Welfare, Government of India.

private moneylenders, eventually falling into a vicious debt cycle. The State support against price fluctuation such as restrictions on the import of agricultural commodities and export subsidies were lifted. All the while, neo-liberal policies benefited rich and capitalist farmers, and multi-national companies. Nature also played its role in the grief of crisis through sequential droughts in different pockets, unseasonal rain, hailstorm, pest attack and so on.

Is there any answer to an ongoing agrarian crisis in India? To answer this question there four main and necessary measures that need to be considered.

First, availability of agricultural credit for both cultivators and tenant farmers with fair interest rate will help them to get essential capital to invest in agriculture. This will also help them get rid off exploitative private moneylenders.

Second, fair output prices to farm produce and support price as is recommended by the Swaminathan Commission. The export-import policies need to be set according to farmers' interest.

Third, an absence of proper infrastructure in terms of irrigation, electricity, storage etc. makes farmers as a distressed seller and hence, public investment essential.

Finally, the market plays an important role. The farmers have always been excluded from the benefits of market competition; therefore, access to the market with incentive on farm prices will improve the household income and living standard of the farmers in the country.

Apart from these four measures, the agrarian question in the Indian countryside cannot be resolved without seriously addressing questions related to caste, class and gender-based exploitation. Food for nine billion people by 2050 will create an unprecedented situation and hence this is high time to protect our farmers, land, natural resources and environment.

References

- Akram-Lodhi, A.H. 1998. 'The Agrarian Question, Past and Present,' *Journal of Peasant Studies*, 25 (49): 134-49.
- Athreya, Venkatesh. 2013. 'The Current Agrarian Crisis in India: An Overview,' *The Marxist*, XXIX (3): 1-18.
- Bhalla, Sheilla. 1993. 'Tests of Some Propositions about the Dynamics of Change in the Rural Workforce', *The Indian Journal of Labour Economics*, 36 (4): 428-439.
- Bhardwaj, Tulsi and Sharma, J.P. 2013. 'Impact of pesticides application in agricultural industry: An Indian scenario', *International Journal of Agriculture and Food Science Technology*, 4 (8): 817-822.
- Bhushan, Chandra and Vineet Kumar. 2017. 'Pradhan Mantri Bima Fasal Yojana: An Assessment', *Centre for Science and Environment*, New Delhi.
- Chand, Ramesh and S.K Srivastava. 2014. 'Changes in the Rural Labour Market and Their Implications for Agriculture,' *Economic and Political Weekly*, 49 (10): 47-54.
- Chandrasekhar, C P., and Jayati Ghosh. 2004. *The Market That Failed: A Decade of Neo-liberal Economic Reforms in India*. New Delhi: Leftword.
- Chavan, Pallavi (2005), "Banking Sector Liberalisation and the Growth and Regional Distribution of Rural Banking", in Ramachandran, V.K and Swaminathan, Madhura (eds.), *Financial Liberalisation and Rural Credit in India*, Tulika Books, New Delhi.
- Chavan, Pallavi. 2002. "Some Features of Rural Credit in India: A Study after the Period of Bank Nationalisation", MPhil Thesis, Indira Gandhi Institute of Development Research (IGIDr), Mumbai.
- Chavan, Pallavi. 2015. 'Rural Credit Co-operatives in Maharashtra', *Economic and Political Weekly*, 50 (38).
- CSDS-Lokniti. 2014. *State of Indian Farmers: A Report*, Centre for Studies of Development Societies, New Delhi.
- Dantwala, M.L. 1986. "Strategy of Agricultural Development since Independence", *Indian Agricultural Development since Independence*, New Delhi, pp.1-15.
- Devi, P.I. 2009. 'Health Risk Perceptions, Awareness and Handling Behaviour of Pesticides by Farm Workers'. *Agricultural Economics Research Journal*, 22(9): 263- 268.

Devi, P.I. 2010. 'Pesticides in agriculture-A boon or a curse? A case study of Kerala'. *Economic and Political Weekly*, 45: 26-27.

Devi. P Indira, Thomas Judy and Raju K Rajesh. 2017. 'Pesticide Consumption in India: Spatiotemporal Analysis', *Agricultural Economics Review Research*, 30 (1): 163-172.

Dhanagare, D.N. 1987. 'Green Revolution and Social Inequalities in India', *Economic and Political Weekly*, 22 (19/21): AN137-AN139-AN141-AN144.

Dhar, Niladri and Navpreet Kaur. 2013. 'Features of Rural Unemployment in India: Evidence from Nine Villages', *Review of Agrarian Studies*, 3(1):14-54.

Dhar, Niladri. 2012. 'On Days of Employment of Rural Labour Households,' *Review of Agrarian Studies*, 2 (2): 106-115.

FAO. 2005. Drought and Water. FAOSTAT Database. Rome: Food and Agriculture Organisation of the United Nations. www.faostat.fao.org

FAO-IFAD. 2012. Facilitating Access of Rural Youth to Agricultural Activities. Summary of the findings of the project implemented by MIJARC (International Movement for Catholic Agricultural and Rural Youth) in collaboration with FAO and IFAD (International Fund for Agricultural Development). Rome: IFAD.

FICCI. 2017. 'Next Generation Indian Agriculture-Role of Crop Protection Solutions,' a report on Indian Agrochemical Industry.

Forster P, Jackson L, Lorenz S, Simelton E, Fraser E, Bahadur K. 2012. 'Food security: near future projections of the impact of drought in Asia'. The Centre for Low Carbon Futures; 2012. Available: <http://www.fao.org/nr/water/aquastat/main/index.stm>

Frankel, Francine. 2005. *India's Political Economy 1947 - 2004*. New Delhi : Oxford University Press.

Ghosh, Subir. 2017. 'When the Nation Could Not Feel the Pulse – The Spike in Prices of Tur and Urad Dal was a Fallout of Cartelisation'. *Economic and Political Weekly*, 52 (25-26), Web Exclusive.

Gol. 2006. *Towards Faster and More Inclusive Growth: An Approach to the 11th Five Year Plan*. New Delhi: Planning Commission. November.

Government of India. 2014. 'Key Indicators of Debt and Investment in India. Ministry of Statistics and Programme Implementation', NSSO.

Government of India. 2017. *Performance Audit of Agricultural Crop Insurance Schemes. A Report of the Comptroller of Auditor General of India, Ministry of Agriculture and Farmers' Welfare, Government of India*.

Griffin, Keith. 1979. *The Political Economy of Agrarian Change: An Essay on the Green Revolution*. Palgrave Macmillan (2nd Edition).

Gulati, Ashok and Narayanan, Sudha. 2003. *Subsidy Syndrome in Indian Agriculture*. New Delhi: Oxford University Press.

Gupta, Dipankar. 2005. 'Whither the Indian Village: Culture and Agriculture in "Rural" India'. *Economic and Political Weekly*, 40 (8): 751-758.

Hazell, B.R. Peter, Mishra, V.N. and Hojjati, Behjat. 1999. "Role of Terms of Trade in Indian Agricultural Growth: A National and State Level Analysis", EPTD Discussion Paper 15, International Food Policy Research Institute, Washington DC.

Hazell, P B R, C Pomareda and A Valdes. 1986. *Crop Insurance for Agricultural Development: Issues and Experience*. Baltimore: Johns Hopkins University Press.

Himanshu. 2011. 'Employment Trends in India: A Re-examination', *Economic and Political Weekly*, 46 (37): 43-59.

Hirway, Indira. 2012. 'Missing Labour Force – an explanation', *Economic and Political Weekly*, 47(37):67-72.

Intergovernmental Panel on Climate Change (IPCC), 2013. *Summary for Policy Makers*. In *Climate Change 2013: The Physical Science Basis*. Contribution of Working Group I to the Fifth Assessment Report of the IPCC (T F Stocker, D Qin, G-K Plattner, M Tignor, SK Allen, J Boschung, A Nouels, Y Xia, V Bex, and P M Midgley (eds.)). Cambridge, UK and New York USA: Cambridge University Press.

International Fund for Agricultural Development (IFAD). 2014. *Youth and Agriculture: Key Challenges and Concrete Solutions*. Rome: IFAD.

IPCC. 2013. *The IPCC's Fifth Assessment Report*. Working Group II Contribution to the IPCC Fifth Assessment Report *Climate Change 2014: Impacts, Adaptation and Vulnerability*.

Islam, MB., Ali, MY., Amin, M. and Zaman, SM. 2011. 'Climate Variations: Farming Systems and Livelihoods in the High Barind Tract and Coastal Areas of Bangladesh', in Lal, R., Sivakumar, M.V.K., Rahman, A.H.M.M. and Islam, K.R. (eds.), *Climate Change and Food Security in South Asia*. Springer Science Business Media B.V.

Jeyaratnam, J. 1990. 'Acute pesticide poisoning: A major global health problem', *World Health Quarterly*, 43(3): 139-144.

Jha, Praveen and Acharya, Nilachala, 2016. "Expenditure on Rural Economy in India's Budget since 1950s: An Assessment", *Review of Agrarian Studies*, 1(2): 134-156.

- Jodhka, Surinder. 1994. 'Agrarian Change and Attached Labour: Emerging Patterns in Haryana Agriculture', *Economic and Political Weekly*, 29 (39): A102-A106.
- Kannan, K.P. and G. Ravindran. 2012. 'Counting and Profiling the Missing Labour Force', *Economic and Political Weekly*, 47(6):77-80.
- Keith, Griffin 1974. *The Political Economy of Agrarian Change: An Essay on the Green Revolution*. Cambridge, Mass: Harvard University Press.
- Kumar, K.S., and Parikh, J. 2001. 'Indian Agriculture and Climate Sensitivity', *Global Environmental Change*, 11(2): 147-154.
- Leavy, Jennifer and Naomi Hossain. 2014. 'Who Wants to Farm? Youth Aspirations, Opportunities and Rising Food Prices'. Working Paper 2014 (439). Sussex: Institute of Development Studies.
- Lipton, M. 1977. *Why Poor People Stay Poor: A Study of Urban Bias in World Development*. London: Temple Smith.
- Mehta, Niti. 2006. 'Employment Availability for Hired Workers: A Comparative Study of Two Villages', *The Indian Journal of Labour Economics*, 49 (3):497-515.
- Mukherjee, Mridula. 1985. 'Commercialisation and Agrarian Change in Pre-Independence Punjab', Raj, K.N., Neeladri Bhattacharya, Sumit Guha and Sakti Padhi (eds.): *Essays on the Commercialisation of Indian Agriculture*. Delhi: Oxford University Press, pp. 51-104.
- Myres, Norman and Kent, Jennifer. 1995. *Environmental Exodus: An Emergent Crisis in Global Arena*. Washington DC: Project on Climate Institute.
- Nagraj, K. 2008. "Farmers' Suicides in India" Magnitude, Trends and Spatial Patterns", Research Report, Madras Institute of Development Studies, Chennai.
- Nair, Reshmy. 2010. 'Crop Insurance in India: Changes and Challenges', *Economic and Political Weekly*, 45 (6):19-22.
- Nanavati, M.B. and Anjaria, J.J. 1947. *The Indian Rural Problem*, Vora and Co. Publishers Ltd, Bombay.
- Nandy, Ashish. 2001. *An Ambiguous Journey to the City: The Village and Other Ruins of the Self in the Indian Imagination*. New Delhi: Oxford University Press.
- Narain, Dharam. 1977. "Growth of Productivity in Indian Agriculture", *Indian Journal of Agricultural Economics*, 32 (1): 1-44.
- National Commission of Farmers (NCF). 2005/2006. Reports, Government of India, New Delhi.

Parikh, Kirit. 1997. "Overview: Prospects and Retrospect", in Parikh, Kirit (ed.), *India Development Report 1997*, Indira Gandhi Institute of Development Research, Oxford University Press, Mumbai.

Patel, S. J. 1952. *Agricultural Labourers in Modern India and Pakistan*. Mumbai: Current Book House.

Patel, S. J. 1994. "Agricultural Labourers in Modern India and Pakistan", in Gyan Prakash (ed.), *The World of the Rural Labourer in Colonial India*, Oxford University Press, Delhi.

Patnaik, Utsa. 1985. 'On the Evolution of the Class of Agricultural Labourers in India,' in Utsa Patnaik and Manjari Dingwaney (eds.), *Chains of Servitude: Bondage and Slavery in India*, Madras: Sangam Books.

Raj, K.N. 1985. 'Introduction', in Raj, K.N., Bhattacharya, N., Guha, S. and Padhi, S. (eds.): *Essays on the Commercialisation of Indian Agriculture*. Delhi: Oxford University Press, pp. vii-xx.

Ramachandran, V. K. and Ramakumar, R. 2000. "Agrarian Reforms and Rural Development Policies in India: A Note", Paper presented at the International Conference on Agrarian Reform in Rural Development, Department of Agrarian Reform, Government of Philippines and the Philippines Development Academy, Tagaytay City, December 5 to 8.

Ramachandran, V.K. 2011. 'The State of Agrarian Relations in India Today,' *The Marxist*, 27(1-2):51-89.

Ramachandran, V.K. and Swaminathan, Madhura. 2001. "Does Informal Credit Provide Security? Rural Banking Policy in India", International Labour Office, Geneva, Switzerland.

Ramachandran, V.K., Swaminathan, Madhura and Rawal, Vikas. 2003. "Agricultural Growth in West Bengal", Paper presented in the All-India Conference on Agriculture and Rural Society in Contemporary India, Bardhaman, December 17-20.

Ramachandran, V.K., Vikas Rawal and Madura Swaminathan. 2010. *Socio-Economic Surveys of Three Villages in Andhra Pradesh: A Study of Agrarian Relations*. New Delhi: Tulika Books.

Ramakumar, R, Karan Raut and Awanish Kumar. 2009. *Agrarian Change in Rural Maharashtra: Resurvey of Selected Villages, A resurvey of Dongargaon village, Akola District, Maharashtra (Research Report)*. Mumbai: Tata Institute of Social Sciences.

Ramakumar, R. 2004. *Socio-Economic Characteristics of Agricultural Workers: A Case Study of a Village in the Malabar Region of Kerala*. Unpublished PhD Thesis. Calcutta: Indian Statistical Institute.

Ramakumar, R. 2010. 'Continuity and Change: Notes on Agriculture in 'New India', in Anthony

D'Costa (ed.), *A New India? Critical Perspectives in the Long Twentieth Century*, London: Anthem Press.

Ramakumar, R. and Chavan, Pallavi. 2007. "Revival of Agricultural Credit in the 2000s: An Explanation", *Economic and Political Weekly*, 42 (52): 57-63.

Ramakumar, R. and Chavan, Pallavi. 2010. *Rural Indebtedness*, in V. K. Ramachandran, Vikas Rawal and Madhura Swaminathan (eds.), *Socio-economic Surveys of Three Villages in Andhra Pradesh: A Study of Agrarian Relations*, Tulika Books, New Delhi, 2010.

Ramakumar, R. and Chavan, Pallavi. 2014. 'Bank Credit to Agriculture in India in the 2000s: Dissecting the Revival', *Review of Agrarian Studies*, 4 (1), 2014.

Ramakumar, R., 2016. *Agriculture and Youth in the Asia-Pacific Region: Status and Challenges with Special Reference to India*", in *Family Farming Meeting the Zero Hunger Challenge*, Food and Agriculture Organisation (FAO) and M. S. Swaminathan Research Foundation (MSSRF), Academic Foundation, New Delhi, 2016.

Raut, Karan, 2017. *Changing Agrarian Relations under Commercialisation: Resurvey of a Village in Maharashtra*. Unpublished PhD Thesis. Mumbai: Tata Institute of Social Sciences.

Raut, Karan. 2012. *Agrarian Change in Maharashtra, 1957 to 2007: A Re-survey of a Village in Eastern Vidarbha*. Unpublished MPhil Dissertation. Mumbai: Tata Institute of Social Sciences.

Roy, A.K., and Hirway I. 2007. *Multiple impacts of droughts and assessment of drought policy in major drought prone states in India*. Gujarat, India: Centre for Development Alternatives.

Sajesh, V.K., and Suresh, A. 2016. 'Public-Sector Agricultural Extension in India', *Review of Agricultural Studies*, 6 (1): 116-131.

Sen, Abhijit and Bhatia, M. L. (2004), *Cost of Cultivation and Farm Incomes*, Vol.14, *State of Indian Farmers: A Millennium Study*, Academic Foundation, New Delhi.

Sen, Abhijit. 2002. "Agriculture, Employment and Poverty: Recent Trends in Rural India", in Ramachandran, V.K. and Swaminathan, Madhura (eds.), *Agrarian Studies: Essays on Agrarian Relations in Less-Developed Countries*, Tulika Books, New Delhi, pp. 392-444.

Sen, Abhijit. 2003. 'Agriculture, Employment and Poverty: Recent Trends in Rural India,' in V.K. Ramachandran and Madhura Swaminathan (eds.): *Agrarian Studies: Essays on Agrarian Relations in Less-Developed Countries*. New Delhi: Tulika Books, pp. 392- 44.

Shetty, S.L. (1997), "Financial Sector Reforms in India: An Evaluation", *Prajanan*, 25 (3-4): 253-287.

Singh, Pushpa, Brajesh Shahi and K.M. Singh. 2017. *Trends of Pulses Production, Consumption*

and Import in India: Current Scenario and Strategies. MPRA Paper No. 81589, Pusa: Dr. Rajendra Prasad Central Agricultural University.

Singh, Raghvendra. 2013. 'Agricultural Livelihoods and Crop Insurance in India: Situation Analysis and Assessment', A Report published by The Deutsche Gesellschaft für International Zusammenarbeit GmbH (GIZ), New Delhi.

Sinha, Sidharth (2004). Agriculture Insurance in India: Scope for Participation of Private Insurers. *Economic and Political Weekly*, Vol. 39, No. 25, pp. 2605-2612.

Surjit, V. 2012. 'Cropping Pattern and Farming Practices in Palakurichi Village, 1918-2004', *Review of Agrarian Studies*, 1(1): 43-62.

Thomas, Jayan Jose. 2012. 'India's Labour Market during the 2000s: Surveying the Changes,' *Economic and Political Weekly*, 47(51):39-51.

Udmale, P., Ichikawa, Y., Kiem, A., and Panda, S. 2014. 'Drought Impact and Adaptation Strategies for Agriculture and Rural Livelihood in the Maharashtra State in India', *The Open Agricultural Journal*, 8: 41-47.

Venkatesh, P. 2013. 'Recent Trends in Rural Employment and Wages in India: Has the Growth Benefited Agricultural Labourers?', *Agricultural Economics Research Review*, 26 (Conference number), pp 13-20.

Vijay, R. 2012. 'Structural Retrogression and Rise of 'New Landlords' in Indian Agriculture: An Empirical Exercise', *Economic and Political Weekly*, 47(5): 37-45.

White, Ben. 2012. "Indonesian Rural Youth Transitions: Employment, Mobility and the Future of Agriculture", in Anne Booth and Chris Manning (eds.), *Land, Livelihood, the Economy and Environment in Indonesia*. Jakarta: Yayasan Pustaka Obor Indonesia. Pp.243-63.

World Bank. 2012. *More and Better Jobs in South Asia*. Washington DC.



Focus on the Global South

Focus on the Global South is a policy research organisation based in Asia (Thailand, Philippines and India). Focus provides support to social movements and communities in India and the Global South by providing research and analysis on the political economy of globalisation and on the key institutions underlying this process. Focus' goals are the dismantling of oppressive economic and political structures and institutions, the creation of liberating structures and institutions, demilitarization, and the promotion of peace.



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.