



A Stagnant Agriculture in Kerala: The Role of the State

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ABSTRACT

Given the significant decline in agricultural production in Kerala in the last few decades, this paper elucidates how government policies and protective practices have created distortions in the agricultural market, hampering the growth of agriculture in the state. The distortions in the input market, namely, land, irrigation and the agricultural credit system as well as in the output market, namely, price and procurement, created by the restrictive policies and practices are discussed in this paper. The paper shows that disincentives generated by the successive governments in Kerala through imposing artificial barriers on the freedom of farmers and agricultural entrepreneurs resulted in the collapse of agriculture in the state.

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Executive Summary

Given the significant decline in agricultural production in Kerala in the last few decades, this paper elucidates how government policies and protective practices have created distortions in the agricultural market. These, in turn, have resulted in hampering the growth of agriculture in the state. The distortions in the input market, namely, land, irrigation and the agricultural credit system as well as in the output market, namely, price and procurement, created by the restrictive policies and practices are discussed in this paper. The method of implementation of land reforms in the state has resulted in the fragmentation of land holdings and the consequent economies of scale. This has also resulted in the takeover of land by many innovative entrepreneurs and distributing the land among groups based on political affiliations, resulting in wide scale corruption in farming practices and non-scientific production practices. The land use control policies in the name of incentivising paddy farming, forced the farmers to continue with paddy cultivation, despite the costs involved and poor remuneration of the food crop cultivation, putting artificial constraints on the freedom of farmers. This has created disincentives to small and marginal farmers for paddy cultivation, favouring the rich and powerful, leading to overall decline in agricultural production. The government policies and practices have resulted in the shortage of agricultural labour along with low mechanisation in farming, hampering the overall growth of agriculture. The poor irrigation management by the Government and the undue importance given to paddy in the implementation of irrigation projects have resulted in very low irrigation efficiency in the state, despite huge government investment of around ₹4800 crore in irrigation. The agricultural credit market in the state has been affected by excessive government interventions, resulting in poor credit delivery to farmers and constraining productive capital formation in the agricultural sector. The excessive government interventions in the pricing, procurement and marketing mechanisms in agriculture, namely, the pricing mechanisms not based on market conditions, restricting marketing through cooperative societies, creating artificial constraints on farmers, have also resulted in creating distortions in the agricultural market.

1. Introduction

Agriculture sector plays a strategic role in the overall development of a country. In India, the contribution of agriculture sector to the economy is very high, in terms of providing principal means of livelihood to around 58 per cent of rural households and contributing to 25 per cent of the country's Gross Domestic Productⁱ. There has been stagnation, however, in the growth of agricultural production in the country for the past several yearsⁱⁱ.

The state of Kerala, which had been highly acclaimed for its high social and economic indicators, witnessed a significant decline in agricultural production in the last few decades. The contribution of agriculture to the Gross State Domestic Product (GSDP) declined significantly from 55 per cent in 1960-61 to 8.95 per cent in 2013-14. The Situation Assessment Survey of Agricultural Households conducted by the National Sample Survey Organisation in rural Indiaⁱⁱⁱ showed Kerala as having only 23.7 per cent of agricultural households^{iv}, which is the least in India, while at the national level it was 53.8 per cent in the year 2013^v. The lack of interest in agriculture among the rural households in Kerala, as compared to the other states, is illustrated by this. At the same time, the production of food crops^{vi}, namely rice, tapioca and pulses, declined from 10 lakh tons, 16 lakh tons and 17,550 tons in 1960-61 to 2.5 lakh tons, 5.08 lakh tons and 3,246 tons in 2012-13 respectively^{vii}. The share of production of coconut, which is the major non-food crop^{viii} in Kerala, declined from 69.52 per cent to 42.12 per cent of the total production in India in the same period^{ix}.

The Agriculture Department under the Government of Kerala, which came into existence in 1956, has been responsible for policy formulation and implementation of all agricultural activities in Kerala. Under the department, there are 31 major institutions, including the boards for the promotion and development of food and non-food crops and financial assistance agencies. The Government of Kerala has spent around ₹4500 crore on the Agriculture Department in 2014-15, while the sector recorded a negative growth rate of -4.67 per cent in the same year^x. Despite the huge government spending on the department, the Net State Domestic Product from agriculture has been stagnating over the last three and half decades in Kerala^{xi}.

This paper is an attempt to elucidate the role played by the protectionist policies and practices of the successive governments in Kerala in creating distortions in the agricultural market, both input and output market, hampering the growth of agriculture in the state. In the next section, the distortions in the different components of input market, such as

land, technology, irrigation and credit, created by these practices and policies are discussed. The third section discusses the distortions created in the components of agricultural output market like prices and procurement by the government policies and practices. The fourth section concludes the paper.

2. Distortions in Input Markets

2.1. Implications of Land Reforms

In Kerala, after the formation of the present Kerala State through the unification of the three princely states - Travancore, Malabar and Cochin - in 1956, the first elected Communist Party of India government passed the Agrarian Relations Bill in 1959 for tenancy reforms and imposing ceilings on land ownership. Later, it was replaced by the comprehensive Kerala Land Reforms Act of 1963, after including it in the Constitution's Ninth Schedule, which was implemented in 1970^{xii}. The differences between the three regions, Malabar, Travancore and Cochin, in terms of the relations between landlords and tenants after the British conquest, had contributed to the differences in agricultural production and the background for the land reforms in Kerala.

The Land Reforms Act implemented in 1970 set a ceiling on the absolute holding size by the landlords and redistributed the surplus land among the landless labourers and poor peasants. At the same time, plantation and trust properties, as well as commercial crops like rubber, coffee and tea, were exempted from the ceiling provisions of the Act^{xiii}. Reports show a high rise in the number of agricultural holdings in Kerala from 19.06 lakh in 1966-67 to 20.22 lakh in 1970-71 and again to 54.18 lakh in 1990-91. While only 81 per cent of the holdings were below one hectare in 1966-67 before the implementation of the Land Reforms Act, it increased to 92.6 per cent in 1990-91, 95.17 per cent in 2000-01 and 96.32 per cent of the agricultural holdings in 2014-15^{xiv}. Thus, land reforms have resulted in the fragmentation of landholdings and the consequent loss of scale economies^{xv}. At present, the percentage of marginal farmers with landholding size less than one hectare is the highest in Kerala among the Indian states, while the agricultural growth here is one among the least in India in 2012, according to the statistics provided by the Ministry of Agriculture, Government of India^{xvi}. States like Punjab, Maharashtra and Gujarat with the highest agricultural growth have only 12.3 per cent, 43.7 per cent and 30.6 per cent of marginal farmers respectively^{xvii}.

The imposition of ceilings on the size of landholdings has resulted in the takeover of land from many innovative entrepreneurs like Thomman Joseph, Murickummoottil in Kuttanad region, who helped in improving the production of food crops like paddy in Kerala through innovative technologies^{xviii}. Coconut production and distribution were managed among private enterprises of such innovative entrepreneurs before the implementation of the land reforms^{xix}. Their method of producing best yielding varieties of tall coconut trees with heavy trunk, from carefully selected seedlings, which were bounded and sprouted in summer, was proven to be highly scientific and innovative, later on, through a 30-year long experiment in Central Plantation Crop Research Institute, Kasaragod^{xx}. The lands, which were taken over from these entrepreneurs, as a result of land reforms, were distributed among cooperative societies formed by the Government under the dominance of political parties^{xxi}. This has only resulted in large scale corruption in farming practices, leading to a rise in the cost of operation and high cumulative losses, as well as production methods based on non-scientific methods by marginal farmers^{xxii}. All these have resulted in the decline in the area and production of all main crops, except plantation crops like rubber and banana/plantains from 1975-76 onwards, after the implementation of the land reforms, as shown in Table 1^{xxiii}.

Table 1: Compound Growth Rates (%) of the Area and Production of Major Crops

Crops	Area			Production		
	1960-61 to 1974-75	1975-76 to 1991-92	1992-93 to 2011-12	1960-61 to 1974-75	1975-76 to 1991-92	1992-93 to 2011-12
Rice	0.83	-2.79	-4.63	1.49	-1.33	-3.18
Coconut	2.71	1.3	-0.33	1.83	1.78	0.74
Rubber	3.38	4.34	0.98	11.91	6.05	3.94
Pepper	1.15	2.97	-0.4	0.22	4.3	-1.33
Banana/Plantains	0.4	1.3	2.33	0.73	1.35	2.45
Tapioca	1.83	-4.79	-2.93	8.37	-4.07	-0.16

Source: NITI Aayog, 2015^{xxiv}

In the above table, it is shown that in the first period, 1960-61 to 1974-75, all the crops have shown positive growth rates for area under cultivation and production. At the same time, food crops like rice and tapioca have shown a significant decline in area and

production from 1975-76 to 1991-92, as demonstrated by their negative growth rates, which further declined from 1992-93 onwards. Only plantation crops like rubber and banana/plantains showed positive growth rates in all the three periods.

2.2. Controls on Land Use

The land use control policies like the Land Utilisation Order, 1967, issued by the Government of Kerala, under the Essential Commodities Act, 1955^{xxv}, and the Kerala Conservation of Paddy and Wetland Act, 2008, created disincentives to farmers through enforcing food crop cultivation, without considering the interests of peasants. The Land Utilization Order, 1967, was implemented in the context of acute food shortage in the state, caused by the neglect of agriculture sector in the Second Five Year Plan, the 1962 war with China and heavy drought in the country. Based on this order, “... *occupied waste or arable lands likely to be left fallow during a cultivation season under cultivation with paddy or other food crops and conversion of any land cultivated with food crops for any other purpose will be prevented, except with the written permission of the District Collector or Revenue Divisional Officers, where the powers of District Collectors have been delegated to them ...*”(Govt of Kerala, 2002,p1)^{xxvi}. The order, thus, gave the District Collector tremendous powers for enforcing food crop cultivation in the state, whatever be the costs and returns. Along with this order, the Kerala Conservation of Paddy and Wetland Act, 2008 was passed “... to conserve paddy lands and wetlands and to restrict the conversion or reclamation thereof, in order to promote growth in the agricultural sector and to sustain the ecological system ...” Despite the costs involved and the poor remuneration of food crop cultivation, especially paddy, the two policies discussed above forced the farmers to continue with paddy cultivation, putting artificial constraints on the freedom of farmers, creating disincentives to them^{xxvii}. The objectives of the above policies to enhance paddy cultivation were, hence, not achieved as shown by the deep decline in the compound growth rates of area under cultivation and production of rice, as shown in Table 1.

Studies based on personal interviews with farmers indicate that there were incidents of widespread crop destruction led by powerful agricultural labour unions, targeted at farmers, who switched to cultivate more profitable crops in Kerala^{xxviii}. At the same time, only small and marginal farmers having land varying from 0.2 hectares to 2 hectares were selected for crop destruction, while the big and powerful farmers, who were using paddy lands for construction purposes were not targeted^{xxix}. The prices of paddy had not been remunerative in the state compared to its cost of cultivation, mainly the labour costs,

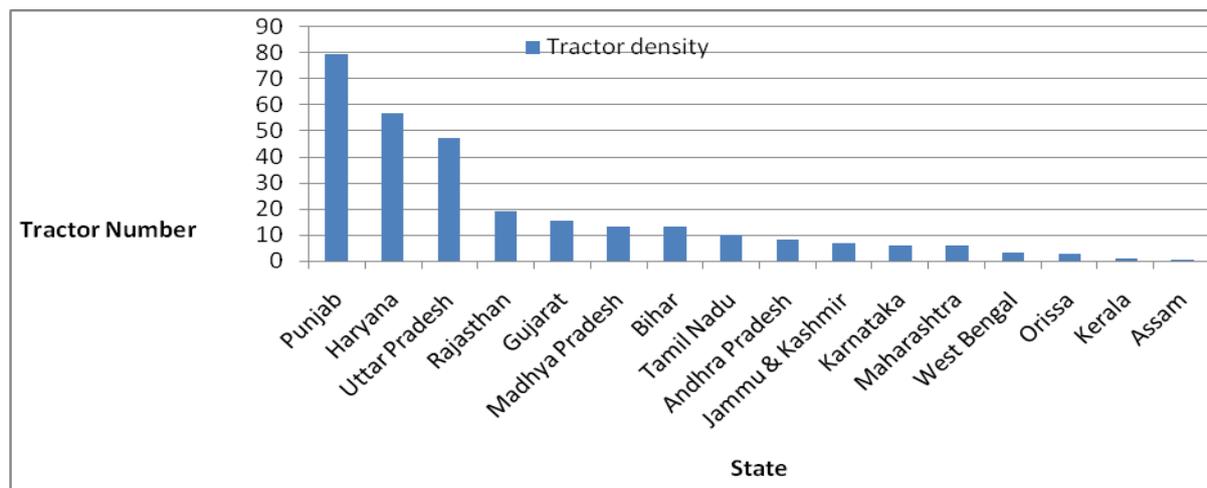
despite input subsidies and infrastructure incentives provided to the farmers^{xxx}. On the other hand, crops like rubber had remunerative prices locally, mainly due to the linkages with the international market, which provided incentives to the farmers for cultivation, as reported by the officials in our interviews. Consequently, small and marginal farmers, who were dependent on paddy cultivation were mainly disincentivised by this order for paddy cultivation with only two available options left, either to leave the lands fallow or to cultivate crops, which were more profitable^{xxxi}. At the same time, the order favoured rich farmers, who could afford leaving the land under paddy cultivation fallow since they had alternative sources of income.

2.3. Government Interventions in the Use of Technology

The poor profitability along with crop destruction practices led by militant agricultural labour unions has created disincentives for cultivation, resulting in a shortage of agricultural labour in the state. At the same time, due to the protective practices adopted by the Governments, a commensurate mechanisation improvement did not take place in Kerala, leading to the decline in agricultural production in the state.

There had been a significant rise in the wage rates of agricultural labourers under the wage bargaining pressures of the trade unions, which were highly politicised^{xxxii}. Kerala is ranked as the state with the highest average daily wage rates of male and female agricultural workers from 1999-00 to 2009-10^{xxxiii}. The highly increasing wage rates were not commensurate with the output produced, resulting in low profitability of food crop cultivation, especially paddy^{xxxiv}. There had been an aversion in the young generation towards working in the agriculture sector, due to the poor profitability of farming and high social prestige provided by government jobs, as a result of state contributed values and systems^{xxxv}. All these led to a severe shortage of agricultural labour in Kerala. The agricultural labour per 1000 rural household is only 189 in Kerala as compared to the all-India average of 223 and 336 in Tamil Nadu in 2009-10^{xxxvi}. This necessitated the need for improving farm mechanisation in the state for enhancing agricultural production. Figure 1 shows Kerala as the state with the second least tractor density in India, which shows the low progress in farm mechanisation in Kerala. Moreover, based on the livestock Census 2003, in which the latest data on the state-wise use of agricultural implements for agricultural purposes is available, Kerala's ranking is one among the least in the density of farm implements^{xxxvii}.

Figure 1: State-wise Tractor Density (Number of tractors per 1,000 hectares of net sown area), 2005-08



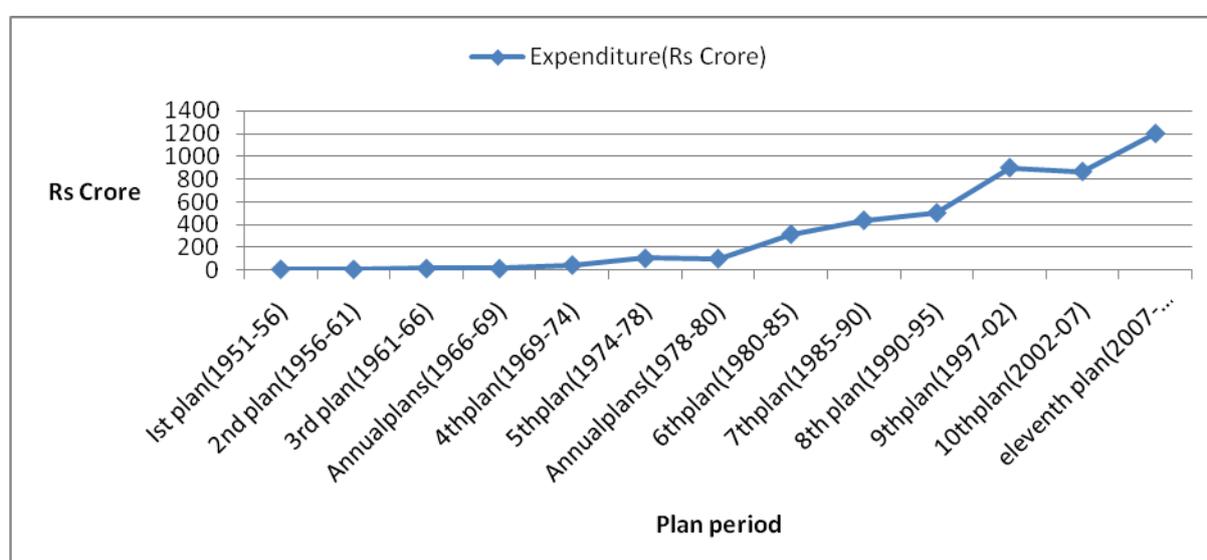
Source: Sarkar, 2013^{xxxviii}

The different policy regulations and protests by political movements against farm mechanisation, indirectly supported by the Governments, resulted in low mechanisation in the state. In Kuttanad^{xxxix}, the attempt to introduce tractors in the 1950s for improving the efficiency of cultivation was opposed violently by the trade union under CPI(M) called *Kuttanad Taluk Uzhavu Thozhilali (Ploughmen's) Union*^{xl}. The union introduced a resolution for banning tractor usage in the Industrial Relations Committee of Kuttanad in 1962. In 1969, it was decided that for allowing tractor usage, each farmer was required to do one additional cattle ploughing rounds in the case of *kayal* (backwater) lands and two additional cattle ploughing rounds in the case of fields on the lands for reducing unemployment among workers^{xli}. There were also regulations like the Kerala Coconut Husks Control Order, 1973, which imposed restrictions on issuing permits for the procurement of green husks to the mechanised sector of coir industry, while enabling the mechanised industrial sector to purchase only dry (brown) coconut husks^{xlii}. This Order amounted to hostile discrimination against the mechanised sector. A series of violent attacks were unspooled by the trade unions, including setting fire to the newly introduced tractors by the Government and attacking electric transformers to oppose the Idukki Hydel Project commissioned by the Government^{xliii}. The Government took no action during the violent protests and agitations against agriculture mechanisation. It could be appropriated as tacit and complicit support by the State, thus depriving the rights of the agriculture landowners. The Government thus indirectly supported the movements opposing mechanisation.

2.4. Government Interventions in Irrigation

One major input in agricultural production is irrigation. The Government had made major investments in irrigation in the different plan periods of the state for increasing agricultural production, as shown in Figure 2. Until 2012, a cumulative amount of around ₹4800 crore had been spent on irrigation in the state. Around 70 per cent of this expenditure was on main and medium irrigation projects, as part of the policy on agriculture development in India in the post-independence period^{xliv}. The focus on major and medium irrigation projects was based on the assumption of achieving higher food crop production and productivity through the extensive enhancement of command areas, which might alter the cropping pattern and cropping intensity.

Figure 2: Investment in Irrigation in the Different Plan Periods (₹ Crore)



Source: State Planning Board (2013)^{xlv}

In spite of the huge investment in the sector, there is a major gap between the created potential of irrigation and the utilised one, indicating poor irrigation management by the Government^{xlvi}. There are many long pending irrigation projects like Karapuzha Irrigation Project, Muvattupuzha Valley Irrigation Project, Idamalayar Irrigation Project and Banasurasagar Irrigation Project, which started from 1971 onwards. Even in the case of completed projects, full benefits were not realised^{xlvii}.

The Government-managed irrigation system was criticised for mismanagement, rent seeking and nepotism by irrigation officials and politicians, thus failing to deliver the targets. The lack of involvement of farmers in the irrigation management was considered an important reason for the poor irrigation management all over India, and in Kerala in the

1970s, resulting in the development of Command Area Programme in 1973. The Command Area Development Authorities (CADA) were aimed at encouraging the participation of farmers in irrigation management. As part of this, many CADAs were formed in Kerala in 1985 to involve farmers in the management of irrigation systems below sluice/outlet, the point from which water is released to the field. There was a three-tier system for the CADA with farmer associations at the base level, canal committees at the middle and the project committee at the upper level. At the same time, studies pointed out that though 4500 farm associations were formed, only 25 to 30 per cent among them were functional, due to the ignorance of farmers' initiatives with government orders dominating their organisations, farmers losing faith in the officials who promised regular supply of water, high interference of politicians and the limited role of the organisations of farmers^{xlviii}. The implementation of irrigation projects under CADAs without considering the specificities of agriculture in the state has resulted in the low irrigation status hampering agriculture growth in the state. For example, most of the irrigation projects under CADAs were designed for the irrigation of wetland crops, mainly rice, neglecting the specific irrigation requirements of other crops^{xlix}. The over importance given to paddy in the implementation of irrigation projects has resulted in the creation of rigidities in the institutional irrigation framework.

The irrigation efficiency of Kerala was only 20 per cent compared to the national average of 30 per cent in 2014, due to the above mentioned protective practices^l. The irrigation status of Kerala is still very low with only 17.6 percentage of the gross cropped area under irrigation cover, which is far below the national average of 35 per cent^{li}. Moreover, there had been only a marginal rise in the net and gross irrigated area in Kerala over the years^{lii}. These show the distortions created in the agricultural market, due to poor irrigation management by the Government, in spite of huge government investments in the sector.

2.5. Distortions in Agricultural Credit System

Excessive government interventions in the credit market have distorted the agricultural credit system in Kerala. Cooperative institutions emerged as the main agricultural credit providing agency in the second half of the 19th century all over India, patronised by both the Government of India and State Governments. Based on the Kerala State Cooperative Societies Act, 1969, that consolidated, amended and unified the cooperative societies' laws in Kerala, cooperative institutions were formed, aimed at providing a cheap source of short and medium term agricultural credit to farmers in Kerala, thus saving them from moneylenders^{liii}. At present, there is a three-tier cooperative credit structure comprising

the Kerala State Cooperative Bank, which is the apex bank with 20 branches, 14 District Cooperative Banks (DCBs) with 668 branches and 1,642 Primary Agricultural Credit Societies (PACS) with 3,000 branches at the grassroot level^{liv}.

Of 1642 PACS, 558 were running on loss, 30 were dormant and 34 societies were under threat of liquidation, as per 2015 statistics^{lv}. According to the report submitted by the International Cooperative Alliance Commission in 1966 and the National Policy on Cooperatives in India, 2002, one among the fundamental principles of cooperation upon which the cooperative societies was formed, included autonomy and independence^{lvi}. At the same time, PACS in Kerala were reported to be affected by bureaucracy and excessive government reliance, which violated the above-mentioned principle^{lvii}. Along with these, high nonperforming assets, capital inadequacy and opposition to automation in PACs resulted in their poor service of credit delivery to farmers^{lviii}.

The Vaidyanathan Committee was appointed by the Government of India in 2004 for suggesting measures to revitalise the cooperative credit institutions in the country in the background of the rapidly deteriorating performance of these institutions. The committee recommended measures like reducing government control on the cooperatives and giving representation to depositors in the cooperative management for making these institutions autonomous and self sustaining. Kerala had not signed the agreement with the Centre on implementing the Vaidyanathan Committee's recommendations on matters associated with the cooperative institutions' functioning. In the case of the Kerala cooperatives, government contributions in the share capital of PACS are very high at 13.7 per cent in 2012, as compared to the national average of 9.2 per cent. The high government contributions to the PACS share capital get reflected in the high government control of PACS in terms of board membership and operational level participation^{lix}. In addition to this, most depositors in Kerala PACS are found to be non-members of cooperatives and thus have no say in the management though they have a major share in the cooperative business. This was suggested to be changed by The Vaidyanathan Committee report^{lx}.

There had been a significant decline in the share of agricultural credit in the total credit of PACS, from 53 per cent in 1981-82 to 17.45 per cent in 2010-11, while at the national level, the share was 50.9 per cent in 2010-11^{lxi}. This shows that PACS in Kerala are not financing agriculture compared to other states. According to the latest statistics, only 10.55 per cent of the total disbursement of ₹71301.88 crore by PACS was utilised for agriculture and only 0.21 per cent of this agricultural credit was for long-term agricultural purposes^{lxii}. The objectives of PACS were not thus achieved in Kerala.

Table 2 shows that among the total agricultural loans by DCBs, short-term agricultural loans constitute a higher percentage with an increasing growth rate than medium-term loans that constitute a small percentage with a negative growth rate. This shows the higher importance given by DCBs for short-term credit than for medium-term agricultural credit like PACS.

Table 2: District Cooperative Banks Total Agricultural Loans in Kerala (in ₹ lakh)

Year	Total Short-term Agricultural Loan	Total Medium-term Agricultural Loan	Total Agricultural Loan
2007-2008	200006	19383	219389
2008-2009	176839	2101	178940
2009-2010	222679	1397	224076
2010-2011	216485	2514	218999
2011-2012	200705	1850	202555
2012-13	231418	1590	233008
2013-14	227243	1957	229200
CAGR (%)	13.618	-89.904	4.472
Note: CAGR is Compound Annual Growth Rate			

Source: Sanitha and Francis, 2014^{lxiii}, <http://nafscob.org/>

The high priority given by DCBs and PACS to short-term loans have resulted in the increasing share of production credit in the total agricultural credit from 70 per cent in 1999-2000 to 87 per cent in 2012-13. At the same time, a significant decline in the share of investment credit, which is the main driver of private capital formation in agriculture, is seen to have decreased from 21 per cent in 1999-2000 to 13 per cent in 2012-13^{lxiv}. The above mentioned government interventions have resulted in creating distortions in the agricultural credit system inhibiting productive capital formation in the agricultural sector.

3. Distortions in Agricultural Output Market

There had been excessive government interventions in the pricing, production, procurement and marketing of agricultural produce in Kerala, creating distortions in the agricultural market. The Minimum Support Price (MSP) introduced by the Central Government in the 1960s is a type of market intervention by the government in which the government buys the agricultural product, if left unsold in the market with the MSP determined by the government. This was aimed as a safety net for farmers against crashes in the market and incentivising farmers for more production^{lxv}. The MSP is thus meant to become the baseline market price beyond which the prices are not allowed to fall by the Government. The State Governments have the right for crop procurement at a price higher than the MSP, even though the Central Government announces the MSP, while the differences have to be borne by the State Governments as subsidy.

The Government of Kerala had been resorting to providing MSP higher than that announced by the Central Government for paddy, aimed at protecting paddy cultivation and incentivising farmers for paddy cultivation. Table 3 shows the various MSP for paddy set by the Kerala Government and Central Government, starting from ₹560 per quintal in 2004-05 to ₹1300 per quintal in 2010-11.

Table 3: MSP by Kerala and Central Governments for Paddy (₹ per quintal)

Year	MSP - Centre	MSP - Kerala
2004-05	560	700
2005-06	570	707
2006-07	580 + 40 (bonus)	850
2007-08	645 + 100 (bonus)	900
2007-08 II	645 + 100 (bonus)	1000
2008-09	850 + 50 (bonus)	1100
2009-10	950 + 50 (bonus)	1200

2010-11 I	1000	1300
2010-11 II	1000	1400

Source: Thomas, 2011^{lxvi}

The prices at which farmers were able to sell their crops were thus greatly influenced by the MSP announced by the Government and not based on demand and supply conditions. In spite of the high MSPs for paddy in the state aimed at incentivising production, paddy production in Kerala has been declining, as shown in Table 1. At the same time, Kerala has been one among the major rice consuming states with a deficit of rice in substantial quantum against consumption, showing a huge demand for rice though its production has been declining^{lxvii}. This shows that MSPs are not helping farmers in the state.

The government interventions in the procurement of different crops in Kerala also resulted in creating distortions in the agricultural market. In the 1950s, coconut marketing was done through cooperative societies in Kerala, with the enactment of the Indian Coconut Committee Act, 1944, at the all India level, aimed at helping coconut farmers to get a fair price through eliminating intermediaries like village traders, copra makers and agricultural societies^{lxviii}. For achieving the aim of ensuring a fair price, the Kerala Government implemented many protective measures for the members of these societies, like arranging the sales of agricultural produce, loan advancement, raw material processing, and storage, packaging and grading provisions through marketing societies^{lxix}. Similarly, paddy procurement was done through primary cooperative societies until 2005.

The survey-based studies on cooperative societies, however, reported that they failed to achieve their objectives, with many irregularities in the procurement of crops through cooperatives like bogus entries in the name of growers actually made by local traders or middlemen^{lxx}. The growers were still being exploited and the prices remained low in spite of the existence of cooperative societies^{lxxi}. At the same time, farmers, who were members of the societies, were forced to sell their agricultural produce only to the cooperative societies, thus creating distortions in the market. In 2005, the Kerala State Civil Supplies Corporation Limited, also called Supplyco, was entrusted the responsibility of paddy procurement from farmers at the MSP decided by the Government of Kerala. Kerala is reported as the state with a steep rise in the government procurement of rice, of around 48 per cent in the last few years, while there has been a significant decline in the production of rice with a negative growth rate in this period, with lower availability of

rice in the open market, according to the latest reports, based on government interventions in the agricultural market and their impact measurements^{lxxii} .

The model of a centralist-planned economy was followed in Kerala with agricultural products to be sold to the Government at Government-determined prices, and not based on market demand and supply conditions, in the name of incentivising crop cultivation, mainly paddy, creating price distortions in the market. This was similar to the case of China before the implementation of the reforms in 1978, where agricultural products were to be sold to the government at prices determined by the government, based on social objectives of the planners and not based on demand and supply. This has resulted in creating disincentives to the farmers, resulting in a decline in the area and production of food and non-food crops like paddy and coconut in Kerala, as shown in Table 1.

4. Conclusion

The disincentives generated by the successive governments in Kerala through imposing artificial barriers on the freedom of farmers and agricultural entrepreneurs have resulted in the collapse of agriculture in the state. The interests of farmers and market conditions were not considered while framing the policies and practices. The middlemen and intermediaries continue to benefit from these measures rather than the farmers.

The protective practices that were supposed to favour food crops like paddy without considering the requirements of farmers have resulted in creating distortions in the agricultural market. This has resulted in disincentivising small and marginal farmers for paddy cultivation, favouring the rich and powerful. The distortions created in the different components of input market by various protective practices and policies include fragmentation of agricultural land, lack of innovative and scientific technologies in agricultural production, low mechanisation in agriculture supported by the governments and poor irrigation management, all of which resulted in hampering agricultural growth in the state. Along with these, distortions in the pricing, procurement and marketing of agricultural products caused by government interventions, following the model of a centralist-planned economy and not based on market conditions, as well as distortions in the credit delivery system by the governments have resulted in inhibiting the formation of productive capital in the agricultural sector. Proper capital absorption is needed for generating investment in the agricultural sector in Kerala, which was constrained by the above-mentioned government interventions. All these have resulted in hampering the growth of the agricultural sector in the state.

- ⁱ IBEF(2016): Indian Agriculture Industry: an overview, <http://www.ibef.org/industry/agriculture-india.aspx>
- ⁱⁱ Ranjan V and K Pratap(2012):Current State of Agriculture in India 2012,New Delhi:Golden Peacock Publication
- ⁱⁱⁱ Economic Review 2015, State Planning Board, Govt of Kerala
- ^{iv} An agricultural household for this survey was defined as a household receiving some value of produce more than Rs.3000/- from agricultural activities (e.g., cultivation of field crops, horticultural crops, fodder crops, plantation, animal husbandry, poultry, fishery, piggery, bee-keeping, vermiculture, sericulture etc.) and having at least one member selfemployed in agriculture either in the principal status or in subsidiary status during last 365 days. However, households which were entirely agricultural labour households and households receiving income entirely from coastal fishing, activity of rural artisans and agricultural services were not considered as agricultural household and they were kept outside the scope of the survey (NSSO, 2014).
- ^v Economic Review 2014, State Planning Board, Govt of Kerala
- ^{vi} The main food crops cultivated in Kerala are rice, tapioca, pulses , cereals . cardamom , cashew, banana and other plantains pepper, areca nut, ginger, nutmeg ,sugarcane, chillies and cinnamon(Economic Review,2014)
- ^{vii} Govt of Kerala(2013): Agricultural Policy,
- ^{viii} The main non food crops cultivated in Kerala are coconut, rubber, tea, coffeee , tobacco, groundnut, sesamon(Economic Review,2014)
- ^{ix} Economic Review 2014, State Planning Board, Govt of Kerala
- ^x Economic Review 2015, State Planning Board, Govt of Kerala
- ^{xi} Economic Review 2015, State Planning Board, Govt of Kerala
- ^{xii} Oommen, M A (1971): *Land Reforms and Socio-Economic Change in Kerala – An Introductory Study*, The Christian Institute for the Study of Religion and Society, Bangalore.
- ^{xiii} The reasons for exempting these from the ceiling provision of the Act included the need for running plantations as industries and the eligibility of plantation workers for availing benefits, which were not available to the agricultural workers(Nair G,2011:Communism and Land Reforms Movement in Kerala, <http://www.haindavakeralam.com/communism-and-land-reforms-hk6744>).
- ^{xiv} Sharban K P and T P Shabana(2015): Agricultural Land Decline in Kerala; an Investigation, International Journal of Scientific and Research Publications, Volume 5, Issue 6,1-3;Economic review, various issues.
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