

AGRARIAN DISTRESS AND STATE RESPONSE IN KERALA

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POLITICAL SCIENCE

by

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CERTIFICATE

This is to certify that the dissertation entitled “Agrarian Distress and State Response in Kerala”, submitted by Basil Benny bearing Regd. No. 19SPHL06, in partial fulfillment of the requirements for the award of Master of Philosophy in Political Science, is a bonafide work carried out by him under my supervision and guidance which is a plagiarism free dissertation.

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*I dedicate my work to the farmers who lost their lives
battling the fight for rights, during the anti-farm law protests
and all those people who lost their lives due to the Covid-19
pandemic.*

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List of Abbreviations

AEU	Agro-Ecological Units	MGNREGA	Mahatma Gandhi National Rural Employment Guarantee Act.
AEZ	Agro-Ecological Zones		
AIADMK	All India Anna Dravida Munnetra Kazhagam	MIDH	Mission for Integrated Development of Horticulture
AIDIS	All India Debt and Investment Survey	MLA	Member of Legislative Assembly
AIFTA	ASEAN-India Free Trade Agreement	MSP	Minimum Support Price
AIRCS	All-India Rural Credit Survey	MT	Metric Tonne
AoA	Agreement on Agriculture	NABARD	National Bank for Agricultural and Rural Development
AoD	Average Amount of Debt	NBSSLP	National Bureau of Soil Survey and Land-Use Planning
AoD	Average Amount of Debt	NCF	National Commission on Farmers
ASEAN	Association of South-East Asian Nations	NCRB	National Crime Record Bureau
ATMA	Agricultural Technology Management Agency	NDA	National Democratic Alliance
BJP	Bharatiya Janata Party	NIC	National Informatics Centre
BOQCL	Biofertilizer and Organic manure Quality Control Laboratory	NITI Aayog	National Institute of Transforming India Aayog
CFS	Committee on the Financial System	NMP	Nutrient Management Plan
CMP	Communist Marxist Party	NR	Natural Rubber
CPI	Communist Party of India	NSDP	Net State Domestic Product
CPI (M)	Communist Party of India (Marxist)	NSSO	National Sample Survey of India
DRI	Differential Rate of Interest	PACS	Primary Agricultural Credit Society
DRI	Differential Rate of Interest	PPP	Public-Private Partnership
FPOs	Farmer Producer Organisations	QR	Quantitative Restriction
GATT	General Agreement on Tariffs and Trade	RBI	Reserve Bank of India
GDP	Gross Domestic Product	RCEP	Regional Comprehensive Economic Partnership
GI	Geographical Indication	RRB	Regional Rural Bank
GVA	Gross Value added	RSP	Revolutionary Socialist Party
INC	Indian National Congress	SFAC	Small Farmers Agribusiness Consortium
IoI	Incident of Indebtedness	TRIPS	Trade-Related Aspects of Intellectual Property Rights
IPR Cell	Intellectual Property Right Cell	UDF	United Democratic Front
IUML	Indian Union Muslim League	UPA	United Progressive Alliance
KAU	Kerala Agricultural University	VFPCCK	Vegetable and Fruit Promotion Council Kerala
KCC	Kissan Credit Card		
Kerala Congress (M)	Kerala Congress (Mani)	WTO	World Trade Organisation
KIIFB	Kerala Infrastructure Investment Fund Board		
LDF	Left Democratic Front		
LIFE mission	Livelihood Inclusion and Financial Empowerment mission		
LJD	Loktantrik Janata Dal		

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Chapter-1

INTRODUCTION

1.1 Introduction

A significant section of the population in developing countries is dependent on agriculture. In India, according to the 2011 Census, about 55 percent of the total workforce is engaged in agriculture and allied sectors. However, the share of agriculture in the national wealth saw a rapid decline. It accounts for only about 18 percent of the country's Gross Value Added for the year 2019-20 (GoI 2021, 1). Over the past three decades there have been reports of a high number of farmers' suicides indicating the persistence of a distress condition in the agricultural sector. Farmers struggle for their livelihood and continue in cultivation even as agriculture becomes unviable and unsustainable. Both the distress condition and farmers' suicides have become endemic to Indian agriculture (Narayanamoorthy, 2006; Suri, 2006; Reddy and Mishra, 2008; Bhalla and Singh, 2009; Chand, 2017). Due to the different agro-climatic conditions, India produces varieties of farm products. The problems faced by the farmers vary according to the crops they produce as well as with respect to differences in climatic conditions. The common policies for agriculture across the country are insufficient to deal with the crisis in a diverse country such as India. Specified policies and interventions are necessary to tackle the distress faced by the farming communities with regard to their cultivation crops, agro-climatic conditions, markets, etc. A substantial amount of literature exists on agricultural distress in India and different states and the respective governmental response over the years. This includes various state-sponsored commissions at the national and state levels like the National Commission on Farmers headed by M.S Swaminathan, Report of the Commission on Farmers' Welfare in Andhra Pradesh chaired by Jayati Ghosh, Kerala Farmers' Debt Relief Commission chaired by Justice Udhayabhanu, etc. The distress management policies such as loan waivers were taken by both the national and state-level governments frequently in response to the persisting distress in the sector of agriculture. However, the issue of agricultural distress is yet to find an enduring solution.

1.2 Background of the Study

Various surveys conducted by the National Sample Survey Organisation (NSSO), and scholars like Chand (2017), Narayanamoorthy (2006) have shown that agricultural households' income from cultivations alone is insufficient to manage the livelihood expenditure of the agricultural households in India. This would lead the farmers towards indebtedness. These conditions and other related issues such as natural calamity, crop failure, etc., would also lead to the major causes of agricultural distress. There are different forms of manifestation of distress in agriculture, and the farmers' suicide is considered as the worst form of embodiment of agricultural distress. The causes might have been the same, but the magnitude and dimensions of agricultural distress and its effects vary in various states.

Kerala is one of the southern states in India. The agricultural sector in Kerala is different from other states due to certain factors such as the cropping pattern, land usage, agriculture marketing, etc. The government reports, such as Kerala Farmers' Debt Relief Commission chaired by Justice Udhayabhanu and other scholars who worked on Kerala's agriculture, stated that the agriculture sector in Kerala is under crisis (Joseph & Joseph, 2005; George & Krishnaprasad, 2006; Jeromi, 2007). In Kerala, farmers majorly cultivate cash crops rather than food crops. Hence the cost of cultivation is higher in the state. Severe indebtedness and farmers' suicides are also high in the state. Political parties in Kerala actively take up the concerns related to these crises by organising farmers' movements, highlighting farmers' woes, resorting to legislative measures to resolve the issues, effective implementation of the welfare schemes and relief measures, etc.

The persisting crisis in the sector necessitated interventions from the government level to overcome or reduce the agricultural distress in Kerala. The union government's one-size-fits-all policy would not be sufficient for the state and the state government has to respond specifically to the agriculture sector's needs in Kerala. Along with the union government, the state government of Kerala also plays a pivotal role in these fields. The state government could use the resources, arrangements, or mechanisms to bring collective actions in addressing agricultural distress. They can come up with agricultural policies and interventions to prevent distress in the sector in a better manner because of the scope of geographical and climate specified reasons.

Kerala has been alternatively ruled by the United Democratic Front (UDF) and the Left Democratic Front (LDF). In this scenario, I would like to study the state of agricultural distress in Kerala and undertake a specific inquiry into the policies enacted by the Oomen

Chandy-led UDF government (2011-2016) and the subsequent Pinarayi Vijayan-led LDF government (2016-2021) in Kerala, which I believe, would bring out differences in attitudes towards agricultural development and distress.

1.3 Review of Literature

Agriculture as a sector has been a significant sphere of the Indian economy since independence. Over the decades, even while being one of the largest employment generation sectors, it has been pushed into a cycle of distress, out of which the sector and the people engaged in it are struggling to come out. The contribution of agriculture toward the national GDP has been on a steep decline and the sector is facing a battle against various economic forces and factors. The development of agriculture could impact the lives of those dependent on it - if not profitable, at least to lead a life without losses and endemic suffering. Various studies on the impending situation of the agriculture sector have observed that by enhancing growth in agriculture, the situation of poverty, especially in the rural areas could be brought down. Ahluwalia (1978) noted that “the evaluation of the relationship between rural poverty and agricultural performance depended upon the level of aggregation at which the analysis was conducted”. It was observed that during the first two decades post-independence, although the incidence of poverty showed a pattern of fluctuation with respect to agricultural performance, it did not indicate a trend in the increase in incidence. Although the interrelationship between agricultural growth and rural poverty could be held true at a peripheral level, primarily at a pan-India level, this could not be the case in every state in the country, as there would be other possible factors that impact the incidence of poverty, based on the local context (Ahluwalia, 1978).

Vyas (2004) too brought into notice, the decelerating rate of growth in agricultural production. He argued that the structural changes in the agriculture sector had spiked the vulnerabilities of the rural population and certain other sections of farmers. Along with the declining rate of growth, other changes such as price fluctuations in domestic and international markets, a rise in the share of purchased inputs in commercial crops etc., indicated that the crisis that agriculture was in and affected the income of the farmers. While there were groups who benefitted from changes in the agriculture sector over years, the farmers in dryland areas, agricultural labourers and small and marginal farmers were often vulnerable to the issue of low income caused by the transformation in the sector. The

uncertainties in the sector were majorly a consequence of the failure of the state at the policy (inadequacies of MSP and crop insurance) and institutional levels (inabilities of extension and credit system) and other factors such as the high cost of production, stagnant prices, etc (Vyas, 2004). “A three-tiered strategy, involving, i) altering existing policies to mitigate the risks of cultivating for the poor farmers (policies to encourage contract farming, to improve the productivity of crops grown in dry regions etc.); ii) strengthening land and water resources by ensuring planned investment and taking up measures to stop land degradation; and iii) enhancing the institutional framework of extension and credit system through cooperative efforts”, were suggested by Vyas (2004). He asserted that the formulation of policies in the agriculture sector has to consider the requirements of the agrarian population's vulnerable sections and make it a mission to protect them from being vulnerable. This in turn would only contribute to social equity and accelerate economic growth, only to the advantage of the sector and the nation's economy.

Suri (2006) studied the impact of changes in the nature of politics and political priorities on the agrarian distress in the country. Political negotiations between the farmers, political parties, social activists, and the government were considered as possible means of intervention in order to challenge the transitioning agriculture sector. He argued that the interests of farmers and their issues were not a matter of concern for those governing at the national level and that it would be the states that would be better occupied to do so. Nonetheless, he also pointed out that the states did not have sufficient resources to spend on agriculture. The Union government handled policies related to exports and imports, where the voices of the peasants were weak (Suri, 2006). In an attempt to deduce from the general pattern of deteriorating agriculture sector in the country, Ghosh and Chandrashekar (2007) studied the agrarian condition in Andhra Pradesh. They argued that the withdrawal of the positive role of the state was the major cause of agrarian distress in Andhra Pradesh. Similar to Suri's argument, that with the liberalisation of the economy, the agriculture sector was downgraded as the policymakers at the Centre had become pro-corporate, Ghosh and Chandrashekar also observed that this policy had transformed “the state into a laboratory for every extreme form of neoliberal economic experiment”. They also noted that the cultivators and workers had been forcefully incorporated into the market relations and systems that were innately against them and worsened their conditions further. A revival of previous economic strategies was required to address these issues adequately and overcome the distress in the agricultural sector (Ghosh and Chandrashekar, 2007).

With the major economic policy shift in India in the early 1990s (adoption of liberalisation and globalisation policies), serious transitions had taken place, in favour of corporate and capitalist interests, pushing the agriculture sector and the population dependent upon it into further distress. The entry of international economic players (WTO, IMF, etc.) in shaping and determining the direction of the Indian economy influenced the decisions such as the removal of Quantitative Restrictions (QR) on imports. The removal of restrictions on imports has certain implications on the producers and consumers, the domestic prices, food security, the productive capacity of agriculture and the possibility of price volatility (Chand, 1998). In order that the farmers are not drowned in the crisis posed by this policy, Chand identifies that increasing the output growth, technological advancement, and focus on scale economies could help overcome the situation within the given circumstances. The role of the state with the changing economic dynamics and the entry of market forces has been redefined. Probably with the changing international economic scenario, where global financial agencies play a significant role in the policymaking of governments, the autonomy for decision-making and policy framing might have shrunk (Suri, 2006).

The challenges that the agriculture sector has to deal with get complex over the years, owing to the changing economic scenario, domestically and internationally as well as other factors (climate, geography, etc.). With the market forces gaining the upper hand, the sector had tried to incorporate changes in order to survive in a highly competitive market. The shift to new varieties of seeds and the consequent requirements that it demanded (better irrigation, fertilisers, machinery, etc.) often resulted in the farmers investing in the sector with more than what they earned. Unlike farmers with huge capitals, small and marginal farmers tend to rely more on formal and informal credit to meet these needs. Due to their financial limitations, in addition to situations such as crop failures or low returns from cultivation, these farmers are pushed into indebtedness. With the increase in debt over the years, and with no decent amount of income getting generated, farmers once again rely on loans and credits to overcome the debt. This circle continues and it is only a matter of time since they realise that they are trapped in a vicious cycle of indebtedness. Rural poverty in India can be attributed mostly to this factor (Rajkumar et al., 2019). Various scholars have tracked the policy on formal credit lending in India over the years (Burgess and Pande, 2005; Mohan, 2006; Sadanandan, 2014; Rajkumar et al., 2019). Prior to the adoption of the liberalisation policy in the early 1990s, the expansion of rural banks as a consequence of the nationalisation of banks in 1969 helped reduce poverty in rural areas (Burgess and Pande, 2005). The

expansion of bank branches across the states in India, as part of the bank branch expansion programme led by the state, resulted in increased savings mobilisation and credit provisions in the locations. However, this programme was put to an end in 1990 as a consequence of stagnant bank loan rates as well as due to lack of proper cost-benefit analysis. This significantly impacted the credit system in rural India.

Rakesh Mohan (2006) noted that the inadequacies in providing credit to small and marginal farmers, the dearth in lending credit for medium and long-term, dependence on moneylenders etc. were some of the systemic gaps that needed to be addressed to tackle the credit crisis in the agriculture sector. The sustenance of credit institutions was under question and unless there undertook a key shift in the approach towards the policy, the situation was to continue. A cooperative effort between the public and cooperative sector banks with private banks, self-help groups as well as suppliers of micro-credit, in addition to encouraging the involvement of private and public participants specific to the region could be one of the possible solutions to the crisis for the moment (Mohan, 2006). Without a conducive environment for the farmers to pursue cultivation and with a rise in challenges they have to face to continue in the sector, the manifestations of distress in agriculture project as farmers' suicide. Sadanandan (2014) holds that the bank reforms in the country in the early 1990s were an unintentional cause of the rise in the incidence of farmers' suicides in India. With the withdrawal of public sector banks from rural areas and the rise in competitive private sector banks, there was a shortage of credit to farmers in some states, creating difficult economic conditions for them to survive. The lack of formal credit and high-interest rates in the informal and private credit systems often leave them with no choice but to commit suicide to escape their dilemma of indebtedness. As an economy in transition, the much-hailed benefits of bank liberalisation could not be reaped in a developing economy such as India and only policy-level interventions from the state could address the adversities it caused the farmers in the country (Sadanandan, 2014). Rajakumar, Mani, Shetty and Karmarkar (2019) also pointed out that the organisational deficiencies caused by the emergence of non-institutional credit agencies post-liberalisation policy in the 1990s needed a revisit and that it was important to strengthen credit delivery to the rural population.

In a scenario where the guarantee of a stable income for farmers is a matter of serious concern, the reliance on the strategy of income diversification through various sources holds significance. The survival of farmers and their households in rural areas depended on the degree of stability in the income generated. With the impending situation of agriculture,

livelihood diversification as a survival strategy could ensure secure means of livelihood and an increased income in rural households (Ellis, 1998). The development of policies that encourage the adoption of such livelihood strategies could enhance social security and reduce poverty in rural households. In the Indian context, Jatav and Sen (2013) pointed out that the distress in the farm sector has led to a tremendous increase in casual labour in the rural non-farm sector (RNFS) and a decline in self and regular employment. Although this level of change could be viewed positively in terms of diversification of income, often, the employment in the non-farm sector was more about the migration of farmers and labour population from the agriculture sector than as an additional means of employment. The rural non-farm sector has witnessed growth since the 1980s, which was primarily due to inadequate opportunities in the farming sector. Nonetheless, the employment in RNFS was not void of difficulties- there were issues of entry barriers for RNFS, in terms of age, education, and gender. To promote balanced rural development in the country, there was a need to initiate a process-driven change (Jatav and Sen, 2013).

Similar to the condition of the sector in the country, Kerala's agriculture too had its own set of crises that have been prevalent in the state for years. The relevance of the performances of regional economies in each contributing sector is to develop a localised understanding of their functioning. The primary focus of the study, as being to explore the distress in the agriculture sector in Kerala, demands an overview of the sector and changes in it over the years. Some of the major literature on the agrarian distress in Kerala explores the impact of trade liberalisation on crop production in the state. The changing trade environment post-WTO interventions had an impact on the growth of output, prices of the commodities as well as income generated through the farming sector (Joseph and Joseph, 2005). Crop production in Kerala has also witnessed significant change, with a gradual shift to commercial cash crops, which was affected by the opening up of trading opportunities and the removal of import restrictions. As a consequence of the influence of the WTO, there occurred a significant decline in the prices of commercial crops in the state. The policy-level initiatives taken by the regional government to address these challenges are a matter of utmost significance. However, as Suri (2006) pointed out, the state governments were not sufficiently equipped to alter the course of action completely since often the Union government formulates major economic decisions.

Apart from the economic impact made by the trade liberalisation, the contribution to Kerala's agricultural crisis owed to factors such as deficiency in rainfall, fall in production and

productivity, excessive focus on export-oriented crops, etc. These factors, in addition to pushing the agriculture sector into crisis, affected the income of farmers in the state and subsequently resulted in a rise in debt (Jeromi, 2007). Drawing attention to the deteriorating condition of farmers and agricultural labourers in the Wayanad district of Kerala, Jose George and Krishnaprasad (2006) argued that indebtedness faced by farmers primarily affects the hired labourers. Extreme measures of suicide were often what they perceived as the last resort to get away from the debt circle. Without adequate safety nets and restructuring programmes and short-term measures (writing off loans, reducing the rate of interest of loans, etc.), intense competition would have severe consequences on the agriculture sector as well as the farmers (Jeromi, 2007; George and Krishnaprasad, 2006). Jeromi asserted that it was imperative to restructure the sector in the long run and increase its competitiveness for yield levels and thereby reduce the production cost. The state government, with its limited powers, could help address the issues by focussing on industrialisation and prioritising agro-industries in the public or cooperative sectors. It could also empower the local bodies to act as response machinery and develop a substantial system to overcome the distress.

1.4 Research Problem

Studying the agrarian crisis in the state of Kerala presents us with a distinctive situation. The state has been ruled alternatively by two alliances of parties, namely the Left and Democratic Front led by the Communist Party of India (Marxist), and the United Democratic Front led by the Indian National Congress. Indian National Congress takes the credit of initiating, introducing and implementing economic reform policies in the country. Critics on the left in terms of ideology accuse the Indian state of anti-peasant bias and also attribute the agrarian crisis partly to the neo-liberal reforms. In this background, it would be interesting to study whether the governments headed by the Congress and the communists responded to the agrarian distress differently. So, the research focus of this dissertation is on the similarities and differences in the interventions undertaken by the Oomen Chandy-led UDF government (2011-16), and the Pinarayi Vijayan-led LDF government (2016- 2021) towards agriculture in response to the distress in the sector.

1.5 Objectives and scope of the Study

1. To understand the agricultural distress in India; the major manifestations and causes behind the same.
2. To examine the effects of the distress in Kerala, its manifestations and causes specified to the state.
3. To analyse the agricultural policies of the Oommen Chandy-led UDF (2011-16) and Pinarayi Vijayan-led LDF governments (2016-21) in Kerala.

Thus, this study aims at understanding similarities and differences with reference to the policies and measures initiated and implemented in the agrarian sector by the United Democratic Front (2011-2016) government and the Left Democratic Front (2016-2021) government. This study examines the existing literature on India's agrarian distress, specifically in Kerala. It reviews the causes and manifestations of agricultural distress in India and Kerala.

1.6 Sources and Methodology

The primary and secondary data include books, articles published in journals, magazines, newspapers, and reports published by various organisations and committees, as well as internet sources.

The several reports of governments about agriculture and related activities by the central and state governments, reports and analyses by the NITI-Aayog and Kerala State Planning Board, survey-reports by the NSSO of different years, Economic Surveys of various years of both central and state governments, reports by various commissions to examine, assess and report on agrarian issues and distress condition, reports of National Crime Records Bureau etc., have been used for the research to understand the condition of the agriculture sector and the farmers in India and primarily focused on Kerala, in terms of cropping pattern, land usage, income of the agriculture households, the debt of farmers, farmers committed suicide, etc.

The election manifestos of political parties/fronts have been used to analyse of the condition of agriculture in the state of Kerala and to develop an idea of the model proposed by the various parties for the development of agriculture and the prioritised areas in the agriculture sector. The speeches and press releases of the political party leaders about the agricultural distress are also analysed to understand better the view of their respective political parties

towards the agriculture sector. Magazines run by various farmer cooperatives, and organisations in Kerala were studied.

The Budget reports of the two consecutive Kerala state governments (2011-2016 and 2016-2021) have been analysed. The governments' share of expenditure on agriculture and allied activities was calculated with the help of these reports. The government documents such as legislative proceedings, Census, official surveys, commission reports, etc., related to the government policy about agriculture were also studied.

1.7 Chapter Scheme

The introduction chapter provides a brief overview of the context and rationale of the study and lays down the framework of the study. After conducting a review of literature, it sets the objectives of the study

The following chapter looks in detail at the scenario of agricultural distress in India. The first section of the chapter explains the various manifestations of distress such as lack of income, farmers' suicide etc. It draws out how there is a shortage in the income generated among the farmers, leading to instability in income, further putting the farmers in a crisis. It also maps out how this, along with other factors, often lead to farmers committing suicide. Further, the section on the factors that cause the distress discusses in detail the issues of high indebtedness and issues relating to credit availability faced by the farmers. The section deals with the problems associated with farming and the expenses incurred upon it- the debt that the farmers are pushed into, to meet the needs of cultivation as well as the shortcomings of the formal credit system in supporting them and the subsequent indebtedness they have to face. The chapter also tries to bring forth a discussion on the possibility of developing the non-farm sector in order to assist those involved in the farming sector financially as an additional source of income to reduce poverty and complete dependency on agriculture.

The third chapter further narrows down to the scenario in Kerala. It outlines the context of the agricultural sector in Kerala, its peculiarities (cropping patterns, land-use patterns etc.), and conditions specific to the region. In analysing the manifestations of the distress, the section explores the decline in the share of the agriculture sector in the state GDP over the years and looks at the issue of farmers' suicide- the causes specific to the condition of agriculture in Kerala. Similar to the previous chapter, there is also a section that deals with the causes of the distress. In addition to the factor of high indebtedness, the section identifies factors such as

the high cost of production involved in the sector as well as the issue of decline in export and the rise of import of agricultural products in the state.

The fourth chapter brings forth an analytical framework of the approaches of two consecutive governments in Kerala- the Oommen Chandy led UDF government (2011-16), and the Pinarayi Vijayan led LDF government (2016- 2021)- in regard to agriculture, its development and their responses on the persisting distress. The first section provides an idea of the attitudes of both fronts towards agriculture over the years. The following section examines the manifestoes of both the fronts and their promises to provide relief and support for the agricultural sector. This is followed by a section on the analysis of the agricultural expenditure undertaken by both governments to understand their share with respect to the total expenditure. In the subsequent section, the major agricultural policies and achievements of the UDF government are studied, along with a sub-section on the lapses in their policies. Similarly, the policies, achievements and lapses of the LDF government are examined in the following section. The chapter also briefly discusses the role of panchayats in the spending incurred on agriculture in a section; whether both governments resorted to the local bodies for the spending successfully. The section on the lack of productivity attempts to lay a picture of the factors that possibly affected the agenda of enhancement of productivity promised by the UDF as well as the LDF governments. Another section aims to understand the structural limitations that obstructed the visions these governments had in dealing with the issues of the sector of agriculture.

Chapter-2

AGRARIAN DISTRESS IN INDIA

2.1 Introduction

The chapter makes a macro-level analysis of the agricultural distress at the pan-India level. It deals with some of the manifestations of agricultural distress in India on the one hand and discusses some of the possible causes of agricultural distress on the other hand. On manifestations, the decline in the share of agriculture and allied activities to the total Gross Value Added (GVA), lack of income in agricultural households and farmers suicides at all India levels will be discussed. The causes of agricultural distress in India might have varied from region to region, even though studies point toward some general causes like high indebtedness, lack of credit availability, and lack of non-farm sector development in India, which will be discussed in the chapter.

It is widely known that agriculture plays a pivotal role in the Indian economy. The impact of the agricultural sector can be seen in many areas. As the largest workforce sector in India (Government of India, 2018), any impact on the agriculture sector would affect the majority of the people in this country. The agricultural enhancement would help the development of the rural economy- various scholars have discussed the positive correlation between rural development and agriculture in India (Birow and Hansen 2019; Ahluwalia 1978). The enhancement of agriculture would in turn help in enabling sustainable development in the country. It would prove to be a significant stage in reaching the food security of a specific area or the nation as well as in the scheme of poverty eradication (Tscharntke, et al 2012; Brahmanand et al, 2013).

Article 48 of the Indian constitution under the Directive Principles of the State Policy says: “State shall endeavour to organise agriculture and animal husbandry on modern and scientific lines” (The Constitution of India, 1950). Agriculture has always been highly influential in the political sphere. Over the years, the Prime Ministers of India have asserted the significant role played by the agriculture sector in the road to development. This is evident in the various slogans and speeches given by different Prime Ministers at different times. Slogans such as ‘*Jai Jawan Jai Kisan*’ (Hail the soldier, Hail the farmer) raised by Lal Bahadur Shastri, *Jai Jawaan, Jai Kisaan, Jai Vigyan*, (Hail the soldier, Hail the farmer, Hail science) by Vajpayee and *Jai Jawaan, Jai Kisaan, Jai Vigyan, Jai Anusandhan* (Hail the soldier, Hail the farmer,

Hail science, Hail research) by the current Prime Minister Modi are indications that except for the additions as per the changing socio-political and economic scenario, the relevance of agriculture prevails even today.

In addition to the state, political parties are also stakeholders in the development of agriculture. The election manifestoes of different political parties reflect their attitudes towards the sector. Doubling farmers' income by 2022, financial support to farmers, interest-free credit cards and pensions for small and marginalised farmers etc., were some of the key promises in the election manifesto of Bharatiya Janata Party (BJP) for the 2019 General Elections (BJP, 2019). The Indian National Congress (INC) also made promises to enhance farmers' welfare in their manifesto- such as waiving the outstanding loans, a separate Kisan budget, establishing a permanent national commission on agricultural development and planning, etc. (INC, 2019). Some political observers and commentators think that the farming community has strong potential to influence policymaking. The well-known American political scientists who extensively worked in India consider the farming community a pressure group. For instance, Paul Brass attributes it to the numerical strength of the farmers and their ability to organise from the local to the national level, with the potential to make movements (Brass, 1994). In reality though, farmers' voices had been shrinking in the political sphere over the years. The state-level farmers' interests hardly find space in the state representative imagination as the political leaders "had developed other vested interests" (Suri, 2006).

Even when agriculture is a major sphere of concern, the sector has been in crisis over the years. It has often failed to generate ample income for the farmers, with low productivity, thereby pushing them into an unending circle of debt and poverty (Suri, 2006; Reddy and Mishra, 2008; Shiva, 2007; Ghosh and Chandrasekhar, 2007). This chapter examines the different manifestations of agricultural distress and the plausible causes in the following sections in detail.

2.2 Manifestations of Agrarian Distress

The externalisation of the distress in the agriculture sector is visible through various factors. Lack of income for farmers, farmers' suicide, and a decline in the share of agriculture and its allied activities to the total GVA are some of the factors that will be discussed in detail in the following sections.

2.2.1 Lack of Income

The National Commission on Farmers (2006) mentions that "*Success in agricultural progress should be measured by the growth of farmers' incomes and not just by production figures*". Income is a decisive variable that plays a crucial role in understanding the socio-political status of households in society. It would help improve the rural households' prosperity and the overall economy. Considering the importance of income in agricultural households, the central government promised to double the farmers' income by 2022 in the 2016-17 Union Budget (Government of India, 2016). The net income of a particular period can be calculated by deducing the total consumption expenditure from the total income. Analysis of the net income of agricultural households would give an insight into whether the income generated can meet the needs of the agricultural household in terms of savings, consumption expenditure, and contribute to sustaining the cultivation in future.

The lack of sufficient data makes it difficult to estimate the income in agricultural households. Nonetheless, the NSSO had conducted national-level surveys *Situation Assessment of Farmers 2003* (Government of India, 2005) and *Situation Assessment of Agricultural Households 2013* (Government of India, 2015) that explored various aspects of agricultural households in India. These two surveys have different definitions of farmers. Hence the possibility of comparing statistics is limited even though these surveys provide detailed data regarding socio-economic aspects of agricultural households. According to the Situation Assessment Agricultural Household Survey reports, the average annual income of agricultural households (including farming and non-farming income) is 77,112 rupees. The source which yielded maximum income was taken as the principal source of income. 63.4% of the agricultural households in India rely on cultivation as their primary income followed by wage/salaried employment (22%), non-agricultural enterprise (4.7%), livestock (3.7%), other agriculture activities (1.1%) and others (5.1%) (Government of India, 2015). The table given below illustrates the average monthly income (₹) from different sources and consumption expenditure (₹) per agricultural household from July 2012 – to June 2013.

Table 2.1: Average monthly income, consumption expenditure, and net income (in Rupees) per agricultural household in India (July 2012- June 2013)

State	Income from wage	Net receipt from cultivation	Net receipt from farming of animal	Net receipt from non-farm business	Total Income	Total Consumption Expenditure	Net Income
Andhra Pradesh	2482	2022	1075	400	5979	5929	50
Arunachal Pradesh	2076	6647	1310	836	10869	7109	3760
Assam	1430	4211	799	255	6695	5766	929
Bihar	1323	1715	279	240	3558	5485	-1927
Chhattisgarh	1848	3347	(-)19	1	5177	4489	688
Gujarat	2683	2933	1930	380	7926	7672	254
Haryana	3491	7867	2645	431	14434	10637	3797
Himachal Pradesh	4030	2876	1047	824	8777	7134	1643
Jammu and Kashmir	7336	3063	801	1483	12683	9017	3666
Jharkhand	1839	1451	1193	238	4721	4688	33
Karnataka	2677	4930	600	625	8832	5889	2943
Kerala	5254	3531	575	2529	11888	11008	880
Madhya Pradesh	1332	4016	732	129	6210	5019	1191
Maharashtra	2156	3856	539	834	7386	5762	1624
Manipur	3815	2924	1563	540	8842	6490	2352
Meghalaya	3776	6472	657	887	11792	6937	4855
Mizoram	3655	4561	864	19	9099	7936	1163
Nagaland	5393	3212	1384	59	10048	7285	2763
Odisha	1716	1407	1314	539	4976	4307	669
Punjab	4779	10862	1658	760	18059	13311	4748
Rajasthan	2534	3138	967	710	7350	7521	(-)171
Sikkim	3113	1696	980	1009	6798	5670	1128 ¹
Tamil Nadu	2902	1917	1100	1061	6980	5803	1177
Telangana	1450	4227	374	260	6311	5061	1250
Tripura	2185	2772	311	162	5429	6922	(-)1493
Uttarakhand	1069	2531	848	253	4701	5784	(-)1083
Uttar Pradesh	1150	2855	543	376	4923	6230	(-)1307
West Bengal	2126	979	225	650	3980	5888	(-)1908

Source: Situation Assessment of Agricultural Households (2015)

The average total monthly income and total monthly consumption expenditure in the state-wise analysis would help to understand the financial condition of agricultural households. As evident from Table 2.1, there are states which have a negative monthly net income such as Rajasthan, Tripura, Uttarakhand, Uttar Pradesh, and West Bengal. Other states like Andhra Pradesh, Assam, Chhattisgarh, Gujarat, Jharkhand, Kerala, and Odisha have less than 1000 rupees in their net monthly income.

The highest average monthly consumption expenditure is reported in Punjab, followed by Haryana, Kerala, Jammu and Kashmir. The data analysis in Table 2.1 point to the fact that agricultural income (income from cultivation and farming of animals) alone cannot meet the monthly consumption expenditure in many states. The wages and non-farm business income helps the agricultural households generate income to meet the demand of expenditure, which is the situation in states like Andhra Pradesh, Arunachal Pradesh, Assam, Bihar, Chhattisgarh, Gujarat, Himachal Pradesh, etc. This data would agree that households that rely exclusively on farm income could not find it adequate even for their consumption expenditure. The question of how the farmers will handle other expenditures would arise. Narayanamoorthy (2006) reveals that Incident of Indebtedness (IoI) and the extent of indebtedness are higher in states with high consumption expenditure than income in farmers' households. Also, the lower income from agriculture would force them to quit agriculture and depend upon other means of income.

The study by Chand *et al* (2015) deals with the income of agricultural households in the period of 1983-2014. The study found that for more than half of the families who have less than 0.63 hectares of land, the income generated by farming is not enough to save them from poverty. The notable mark on these studies is that when farm income growth is low, farmers' suicide increases. When farmers' income rises, farmers' suicide would decline. Chand (2017) argues that lack of income will reduce the interest in cultivation and farming activities, especially for young people, who would prefer to withdraw from agriculture and take up other jobs.

NSSO (Government of India, 2015) data on consumption expenditure survey

for the year 2011-12 reveal another fact that one-fifth of the rural households that have agriculture as their primary occupation are below the poverty line. At the all-India level, 22.5 % of agricultural households belong to the below poverty line. In Jharkhand, nearly half (45.3%) of the agricultural households live below the poverty line. The percentage of agricultural

households below the poverty line is higher in states like Jharkhand, Odisha, Bihar, Madhya Pradesh than at the all-India level (Government of India, 2015). The decline in family income is one of the decisive matters in the case of poverty.

There is an evident shortage in the income generated among those involved in the farming sector, which in turn affects the living standards of the farmers as well as the productivity of agriculture. A lack of income, in addition to other factors that cause low returns put the farmers in a crisis and push them to poverty, making it difficult for them to find a stable source of income from the sector they had invested in. With a declining income, farmers would find it difficult to repay their debts on time, leading them to resort to grave decisions such as suicides.

2.2.2 Farmers' Suicide in India

The agricultural crisis is not a new phenomenon for the agricultural sector in India. The manifestation has been varying over the years, although the farmers' suicide is considered the worst form of agricultural distress. The newspapers, visual media, other means of communication and government reports show the pathetic means of suicides the farmers resorted to by consuming pesticides, hanging, cutting blood veins, etc. The National Crime Record Bureau (NCRB) report for various years provides the data of farmers' suicide and helps analyse the same. Between 1998 and 2010, the number of farmers' suicide was over 15,000. During the same period, two-thirds of the farmer's suicides occurred majorly in five states: Andhra Pradesh, Chhattisgarh, Karnataka, Kerala and Maharashtra, and Telangana. Vidarbha and Wayanad regions among these states had reported high rates of farmers' suicide. The different state governments studied the farmer's suicide in their states. Most studies found that the agricultural crisis is not the reason for all farmers' suicides but the prevailing cause of those. Suri (2006) had mentioned some interesting factors - the states in which a high number of farmers' suicide occurred 1) were relatively agriculturally developed 2) witnessed strong peasant movements in the past and 3) had the leadership of the political parties predominately from the farming community.

According to the National Crime Record Bureau (NCRB) (Government of India, 2016) report, 9.4% of the total suicides in India relate to farmers' suicide. The Bureau reports the farmers' suicide in two ways: one as a cultivator and the other as an agricultural labourer. A total of 12,602 persons involved in the farming sector (consisting of 8,007 farmers/cultivators and 4,595 agricultural labourers) had committed suicide during 2015 alone. State/Union

Territory-wise analysis reveals that the majority of suicides by persons engaged in the agricultural sector were reported in Maharashtra (4,291 suicides) followed by Karnataka (1,569 suicides), Telangana (1,400 suicides), Madhya Pradesh (1,290 suicides), Chhattisgarh (954 suicides), Andhra Pradesh (916 suicides) and Tamil Nadu (606 suicides) during 2015; together they accounted for 87.5% of total such suicides in the country (11,026 out of 12,602 suicides).

The NCRB (Government of India, 2016) also examines the causes of farmers' suicides. More than fifty percent of the suicides are related to agricultural activities. Nearly thirty-nine percent of cultivators committed suicide due to bankruptcy, and almost twenty percent of the cultivators committed suicide due to farming-related issues. Other causes which the report adverts to are family problems, illness, drug abuse/alcohol abuse, marriage-related issues, poverty, and property dispute; the percentage of cultivators committing suicide due to these causes are 11.7%, 10.5%, nearly 4%, 2%, 1%, 1% respectively (Government of India, 2016).

As mentioned earlier, a significant percentage of the workforce in the country belongs to the agricultural sector. Therefore, the state of this sector is reflective of the living conditions of the vast majority of workers in India. In the case of agricultural workers, a total of 4,595 agrarian labourers have committed suicide during 2015. State/UT-wise analysis reveals that the majority of such suicides were reported in Maharashtra (1,261 suicides) followed by Madhya Pradesh (709 suicides), Tamil Nadu (604 suicides), Andhra Pradesh (400 suicides), Karnataka (372 suicides), Gujarat (244 suicides) and Kerala (207 suicides). These states collectively accounted for 82.6% of total such suicides (3,797 out of 4,595 suicides) in 2015 (Government of India, 2016). In retrospect, the cause of suicide is similar to that of the cultivators, but the intensity is different. Nearly forty per cent of the agricultural labourers committed suicide due to family problems, followed by illness (19%), drug abuse/alcoholic addiction (6.8%), poverty (3.9%), indebtedness (2.2%), other causes (13.4%), and causes not known (6.1%) (Government of India, 2016). It shows the pathetic financial conditions of agricultural labourers. The labourers could not even meet their basic needs such as food and health through their income.

The National Crime Record Bureau divides the farmers into four categories for statistical purposes:

- i. Marginal farmers (Having less than 1 hectare of land)

- ii. Small farmers (in between 1 hectare and 2 hectares)
- iii. Medium farmers (in between 2 hectares to 10 hectares)
- iv. Larger farmers (more than 10 hectares)

The report claims that suicides mainly occurred in small and marginal farmers' households. The landholding status of farmers/cultivators who committed suicide during 2015 revealed that 45.2% and 27.4% of total such victims were small and marginal farmers/cultivators, respectively. Together, these accounted for 72.6% of total farmers/cultivators' suicides (Government of India, 2016). In India, the majority of the farmers are small and marginal farmers. Those farmers who possessed a good size of hectares of land had other means to emancipate from the agrarian crisis. The majority who fell into the crisis trap were small and marginal farmers, for whom the ability to overcome the crisis was limited.

Even when there are possibilities to formulate solutions to the various other manifestations of the agricultural crisis, it is often irreversible in the case of suicides. It would also collapse the financial and mental conditions of agricultural households. It, therefore, demands immediate attention from the political and social spheres.

2.2.3 The Share of Agriculture and its Allied Activities Towards Total GVA

Agriculture plays a pivotal role in the Indian economy. It is the largest employment-creating sector in India (Government of India, 2021). Nearly 54.6% of India's population relied on agriculture and its allied activities for their livelihood among which the majority belong to the rural areas (Government of India, 2021). The development of the agriculture sector could be contributing to the development of a large section of the people in India. It can enhance rural income, promote inclusive growth and sustain food security (Behanassi and Draggan, 2011; Rao, 1994). The development of agriculture and its allied activities and the growth of the agricultural sector can be measured by examining the contribution of the agricultural sector to the total Gross Value Added (GVA) of the state.

The share of agricultural and its allied sector to the total GVA of the Indian state is given in table 2.2

Table 2.2: Share of agriculture and allied activities to the total GVA (2011-2019)

Year	Percentage share of agriculture and allied activities to the total GVA
2011-12	18.5%
2012-13	18.2%
2013-14	18.6%
2014-15	18.2%
2015-16	17.7%
2016-17	18.0%
2017-18	18.0%
2018-19	17.1%

Source: National Accounts Statistics-2020, Central Statistical Organisation, GoI

In an analysis of the data in Table 2.2, it is evident that agriculture and its allied activities are the major employment bearing sector even though the percentage share of these activities towards total GVA is less than 20% in the last decade (2011-19). During the period 2011-15, the percentage share of agriculture and allied activities to the total GVA varies between 18.6 and 18.2 per cent. In the 2015-16 financial year though, the share went down to 17.7%, while in the period 2016-18, the share of agriculture and allied activities was only 18%. In 2018-19, the share slipped down by 0.9%, to 17.1%. There has not been any significant increase in the GVA share by the agriculture sector to the total GVA of the Indian state in the last decade.

The agricultural sector contributed more than half of the total GDP during the initial days after the attainment of independence (Government of India, 2015), but now, other sectors; the industrial and service sectors contribute more than 3/4th of the total GDP. Between 1950-51, 51.9% of the total GDP was contributed by agriculture and its allied activities, while the industrial and service sectors contributed 11.1% and 34.6% respectively (Government of India, 2015). During the period 1960-61, agriculture and its allied sector contributed 47.6% to the total GDP; 13.7% contribution to the total GDP was by the industrial sector and 36.6% by the service sector (Government of India, 2015). By 2012-13 though, the share of the service sector consisted of 67.4%, and that of the industrial and agriculture sectors was 18.9% and 13.7% respectively to the total GDP (Government of India, 2013). In 2013-14, the shares

were 57.1%, 24% and 17.1% by the service, industrial and agriculture sectors respectively (Government of India, 2014). In 2014-15, 53. % of the total GDP was contributed by the service sector, 30% by the industrial sector and 17.0% by the agriculture sector (Government of India, 2016). It is evident that agriculture has not been able to keep up with the pace of growth as that of the industrial and service sectors. While there is a decline in the share of agriculture to the total GDP, the corresponding shrink in employment is not being witnessed. Thus, in India, two-thirds of people live in rural areas, but their share is less than twenty per cent of the total GDP. It asserts that the living condition of rural people who depend on agriculture is under threat (Suri, 2006).

2.3. Causes of Agrarian Distress:

A policy-level intervention could possibly resolve the issues of lack of income or prevent farmers from committing suicide, yet it is rather better to address the factors that cause distress in the agricultural sector. The following sections will elaborate on some of the causes of the agricultural crisis in India.

2.3.1 High Indebtedness

High indebtedness is an inevitable aspect of any discussion on the causes behind the agricultural distress in India. Through various reports, the union government and the different state governments have agreed that indebtedness has been one of the leading causes of agricultural distress in India (Government of India, 2006; Government of Kerala, 2009). There have been several studies under the central and state governments on how debt burden affects farming families. In addition, many scholars have also researched this subject. Indebtedness is not new for farming households; in the past, farmers cultivated by borrowing money, but debt had not led to such extreme steps as suicides. These days, indebtedness is the leading cause of farmers' suicide. Darling (1947) stated that "the Indian peasant is born in debt, lives in debt and dies in debt". Even though it was written eight decades ago, it is relevant even today.

According to the NSSO's Situation assessment survey (Government of India, 2015), about 52 per cent of the agricultural households in the country were estimated to be indebted. The average amount of outstanding loans per agricultural household was Rs.47000/- (approx.). In studying the share of indebtedness at the state level, Andhra Pradesh has the highest share of indebted agricultural households in the country (92.9%). Telangana with 89% is at the second position followed by Tamil Nadu (82.5%), Kerala (77.7%). Karnataka (77.3%). The data in

Table 2.3, elucidate details about the average amount of the outstanding loan per agricultural household by the size class of the possessed land. From the figures, it can be observed that the states with high agricultural household indebtedness, however, have a good banking network like Kerala, Maharashtra, etc. At all India levels, the percentage of indebted agricultural households increased with the size class of the land possessed between 41.9 per cent in the lowest size class of land possessed and 78.7 per cent among agricultural households owning 10.00 + ha. land. While analysing the average amount of outstanding loans of agricultural households, Kerala tops the list followed by Andhra Pradesh and Punjab. Assam, Jharkhand and Chhattisgarh were the states with the lowest amount of average outstanding loans at the time of the survey.

Table 2.3: The state-wise average amount of outstanding loan per agricultural household by the size of land possessed (in ha)

State	<0.01	0.01-0.4	0.41-1.0	1.01-2.0	2.1-4.0	4.01-10.00	10.00+	All sizes	Proportion of indebted agricultural households (0.0%)
Andhra Pradesh	2409	739	893	1049	1623	3500	2494	1234	
Assam	4	8	24	67	71	173	0	34	17.5
Bihar	73	138	132	341	279	424	1494	163	42.5
Chhattisgarh	0	48	93	79	202	239	0	102	37.2
Gujarat	69	120	247	311	826	1624	1148	381	42.6
Haryana	950	192	737	900	1573	1162	4681	790	42.3
Jharkhand	0	56	46	85	92	200	0	57	28.9
Karnataka	355	778	633	987	1248	2321	3673	972	77.3
Kerala	1690	1592	1944	3467	6070	7505	15726	2136	77.7
Madhya Pradesh	91	119	152	270	629	1168	1952	321	45.7
Maharashtra	102	423	232	455	582	2071	3869	547	57.3
Odisha	88	167	337	181	326	1302	2221	282	57.5
Punjab	131	246	516	1641	2292	3266	9274	1195	53.2
Rajasthan	694	334	431	678	1031	1548	1528	705	61.8
Tamil Nadu	377	674	1192	1200	2147	3224	4512	1159	82.5
Telangana	563	578	794	1033	1097	1369	2698	935	89.1
Uttar Pradesh	219	160	218	457	1075	1248	2178	273	43.8
West Bengal	57	146	197	330	329	435	2760	178	51.5

Source: NSSO, (2015). Situation Assessment Survey of Agricultural Households.

Information about the indebtedness in India can be acquired through the All-India Debt and Investment Survey (AIDIS) of various years (Government of India, Multiple years). The analysis of this survey would lead to a precise understanding of the conditions of indebtedness in households. While inspecting the study, as per the measure of Incident of Indebtedness (IoI) in rural areas, more than three-fourths of the rural households are primarily cultivator households (Government of India, 2014). The decline of IoI in households had been steady up to 1981 and in a rising phase after that. This same trend can be observed in cultivator households as well. The level of rising of the IoI in rural households is estimated to be higher than the urban counterparts since 1991 for a decade. This is attributed to the resurgence of non-institution credit agencies, particularly for cultivator households compared to the other category (Karmakar, 2007). The average amount of Debt (AoD) is another apparatus to measure the intensity of indebtedness of agricultural households, which can be studied through AIDIS data. The AoD of the cultivator households is higher than non-cultivator households throughout the period (1951-2012) in rural areas as per the data (Government of India, 2014).

Table 2.4: Debt per Households in Rural Areas (In rupees)

Household Category	Years						
	1951	1961	1971	1981	1991	2002	2012
All Rural households	283	406	500	661	1906	7539	32522
Cultivators	364	473	605	803	2294	9261	38655
Non-Cultivators	129	224	223	205	1151	4991	22538

Source: NSSO All-India Debt and Investment Survey, 70th Round, 2013

The AIDIS survey also disclosed the purpose of loans taken by the households. The survey found no consistent trend in the purpose of loans taken by rural households over the years, even though the consumption expenditure dominates the households' borrowing needs (Government of India, 2014). For productive purposes, a loan is taken by rural households chiefly for farm business. The loan taken for expenditure for non-farm businesses by rural households is fewer when compared to the expenditure for farm businesses. Expenditure in households comprises different aspects: household expenditure, expenditure on litigation, repayment of the debt, financial investment expenditure, education expenditure, medical treatment expenditure, housing, and other expenditure. An important observation that can be made from Table 2.5 is that people had taken loans for education and medical expenditure since 1991.

It is a known fact that agriculture is an activity that needs initial investment for its operationalisation. Hence, taking a loan is essential for cultivation. In 1901, more than 80% of the cultivators were in debt (Kaushal, 1979). However, there has been a qualitative change in the causes for taking up loans in the present day, as agriculture has become a cash-based individual enterprise requiring high investment in modern input and wage labour. The demand for credit in agriculture has increased several times than before (Suri, 2006).

Table 2.5 Distribution of Rural Households Cash Loan by Purpose, 1951 to 2012 (In Percentage)

Purpose of Debt	1951	1961	1971	1981	1991	2002	2012
Expenditure in Farm Business	37	33	45	60	25	41	28
Expenditure in non-Farm Business	7	6	6	9	13	12	11
Expenditure in Household	56	61	50	31	63	47	60
Household Expenditure	50	51	41	22		35	0.0
Expenditure on Litigation		2	1	0.2		0.3	3
Repayment of Debt		5	2	1		1	0.1
Financial Investment Expenditure		0.2	1	1		1	3
Education Expenditure							6
Medical Treatment Expenditure							20
Housing					7		23
Other Household Expenditure					56		5
Other	6	3	6	7		10	

Source: NSSO All-India Debt and Investment Survey, 70th Round (January-December 2013)

2.3.2 Lack of Credit Availability

The indebtedness and credit availability are considered two sides of a coin. The Indian agricultural sector has been focusing on implementing the technologically advanced mode of production in agriculture to help get better production and productivity for farming (Mehta, Chandel, & Senthilkumar, 2014). This resulted in a tremendous increase in current and capital inputs that increased productivity, production, and income, ultimately increasing their consumption expenditure. Changes in crop production and consumption patterns from cereals to non-cereals, rural diversification and value addition of farm production demand an easily available credit, making it an essential factor for the cultivation in agriculture (Shetty, 2006).

Although availing credit for cultivation is not considered a dimension of the agrarian crisis, the inability to repay the existing loan is a cause of distress in agriculture

a. Historical Overview of Agriculture Credit

At the time of independence, the cooperative credit system played a major role as a source of credit for the rural area, particularly agriculture (Mohan, 2006). According to the All-India Rural Credit Survey (AIRCS) report in 1951-52, the accessibility of credit in rural areas remains low. This indicates that the cooperative credit system could not perform up to the demands of rural areas, particularly in agriculture. Throughout the 1950s and 60s, the focus was more on industrial push. Hence there was inadequate attention towards agriculture. The green revolution that followed in the 1960s and 1970s demanded adequate availability of credit that could enable the purchase of input such as fertiliser, high yielding seed varieties, pump set for irrigation, and other such demands (Mohan, 2006). From being urban-oriented credit institutions, the commercial banks under public ownership (due to branch licencing and priority sector lending policies) became key rural and agricultural credit agencies after post nationalisation of commercial banks in 1969 and 1980 (Narayana, 2000).

In 1972, a differential rate of interest (DRI) scheme was introduced that provided credit from the public bank at regulated interest rates to individuals below the poverty line (RBI, 2008). This could help the farmers to take the loan at a minimum interest rate. Regional Rural Banks (RRB) were set up by the end of 1977, and the National Bank for Agriculture and Rural Development (NABARD) was set up in 1982 (Mohan, 2006). The introduction of the 4:1 branch policy (banks to open four rural branches for opening an urban branch) enhanced the accessibility of farmers to institutional credit (Burgess and Pande, 2005). The RRB and NABARD improved the availability of rural credit, especially for agriculture, and in that era of ‘social control’ over financial institutions, credit lending to agriculture increased like never witnessed before in the country (RBI, 2005). This had an overall impact in improving the reliance of rural people on institutional sources rather than the non-institutional source for the credit.

With the advent of financial liberalisation in 1991, the Committee on the Financial System (CFS) strongly favoured liberalisation in India's banking sector to make it more competitive (Government of India, 1991). Liberalisation policy permitted foreign and private banks' entry into the market, led to the withdrawal from the policy that insisted on opening rural branches and gave greater autonomy to the banks (related to interest rate, investment and credit policy

etc.) (Mohan, 2006). Due to these initiatives, agricultural credit in the 1990s was affected in various ways- 1) a larger scale closure of commercial banks in the rural area; 2) a widening of interstate inequalities in credit provision; 3) a sharp fall in the growth of credit flow to agriculture; 4) increasing side-lining of small and marginalised farmers in the supply of agriculture credit; 5) strengthening of the hold of moneylenders on rural debt portfolios (Ramachandran and Swaminathan, 2004; Shetty 2006; Chavan, 2005 and 2007).

In 2004, the United Progressive Alliance (UPA) government initiated some policies to improve credit accessibility in rural India under an integral scheme, "new deal with rural India". It started measures to double the flow of agricultural credit between 2004-2006 (Chavan and Ramakumar, 2007). The Union Budget 2005-06 proposed to provide credit in much higher numbers with the help of commercial banks, RRB, and cooperative banks (Government of India, 2005). The government also initiated an increase in the refinance support from RBI and capital contribution to NABARD, introduced Kisan Credit Card (KCC) and stipulation of interest rate not exceeding 9 per cent for crop loans up to 50,000 extended through public sector banks (Mohan, 2006). The Narendra Modi government has also been ensuring credit availability for farmers and implementing schemes like Kissan card etc. It is a fact that institutional credit availability improved in India, but the issues still prevail.

b. Competition of Banks and Agriculture Credit

An interesting factor found from the analysis of farmers' suicide in India is that most suicides had taken place in states with good banking sector networks. As mentioned earlier, the competition between the banks has increased in the post-liberalisation period irrespective of them being public or private sector banks (Bhaumik and Dimova, 2004). Sustainability and profit have become a significant concern for the banks; therefore, higher returns became a parameter for lending credit. Sadanandan (2014) studied the relationship and impact of competition in banking and farmers' suicide. His study discussed the sectoral priority shown by the banks in the competitive market and found that agriculture was a minor priority sector for bankers in providing credit. It led to the diversion of resources from agriculture to other sectors that gave much better returns. Direct loan lending to the farmers declined due to bank competition, which highly affected the small and marginalised farmers (Sadanandhan, 2014).

Many scholars have argued that small and marginalised farmers' condition has been pathetic; the decline in credit lending would further deepen their crisis. Chavan and Ramakumar

(2007) showed that direct finance with a credit limit of up to 2 lakhs from the total direct finance credit had declined sharply in successive years, and in the case of direct finance with credit shares above Rs 2 lakh recorded a drastic increase in total direct finance credit. This kind of condition would adversely affect them. Consequently, the competition in the banking sector and difficulty in availing of credit would force the farmers to rely on private moneylenders.

c. Moneylenders

Multiple states and central government reports on agricultural and credit systems bring out the adverse impact made by moneylenders in the farming sector that would, in turn, throw light on the political and governance sphere in regard to agriculture. As mentioned earlier, agriculture is a capital investment activity. Comparing the data of the All-India Debt and Investment Survey (AIDIS) from 1951 to 2012, we can say that reformation in the financial industry helps the farmers rely on the institutional sector to get credit. Nonetheless, the influence of non-institutional credit exists in society, among which the money lenders play a pivotal role in farming.

AIDIS survey of 2002 and 2012 showed that nearly forty per cent of credit to the cultivation households goes only through the non-institutional agencies, of which half of it is by the moneylenders. The survey classified the money lenders into two: professional and agricultural moneylenders. In the 1950s and 60s, in cultivation households in rural areas, more than half of the credit source was in the non-institutional sector only, and it declined steadily in the following years. However, a new phenomenon, i.e. the re-emergence of money lenders in credit sources to cultivator households in rural areas, could be seen in the 2002 and 2012 AIDIS surveys (Government of India, 2002, 2012). In recent decades the competition between institutional credit and moneylenders increased with the re-emergence of moneylenders, who were held relatively with higher significance in comparison to the commercial banks in the rural credit markets, especially for agriculture (Rajkumar, Mani, Shetty and Karmarkar, 2019).

Other questions of concern include: why do farmers rely on moneylenders? What are the consequences when farmers rely on agriculture? How is the interest rate of moneylenders different from institutional credit? etc. Karmarkar (2007) pointed out some factors that cause difficulty for the farmers to access the institutional credit system. High transaction cost, the significant number of non-borrowing members, involvement of non-credit function, and weak

financial health of credit systems like lack of autonomy, absence of professional management, inadequate internal control or supervision, and the existence of imbalance would bound the farmers to depend on moneylenders for credit.

The Government of India (2015) NSSO, SAS survey would agree that the share of institutional credit increases when the size of land possessions increases. The bank demands the liability for acquiring agricultural loans for which the land is usually a common liability. However, the small and marginal-scale farmers with small landholdings are unable to produce land as a liability to acquire a loan. Therefore, these farmers are forced to depend on moneylenders as the last resort for getting a loan. The moneylenders would ask for a share of harvest or any other means as liability from small cultivators, which could be much more practical than what the institutional system demands. This liability from the harvest will burden small scale farmers and farmers cultivating on rented land. It makes farming an unprofitable activity for small scale farmers.

The high-interest rate charged by the moneylenders is another crisis the farming sector faces in the credit mechanism. It adversely affects the income and profit from the cultivation. Different factors influence the interest rate charged by the money lenders. Iqbal (1988) studied the factors that influence moneylenders' interest rates. While the borrower's potential profit and environment play a pivotal role in determining the interest rate, factors that influence it are the farm size, soil quality, and even the educational status of farmers. Secondly, farmers residing in areas characterised by the use and/or provision of new technology appear to benefit in that they face lower moneylender interest rates. Finally, Iqbal denoted the advancement of the formal credit sector. It increased the competition in the market drive to decline the monopoly of money lenders, which would reduce the interest rate charged by the moneylenders. From the stated observations, it is clear that small and marginalised farmers will suffer badly due to the high-interest charge by the money lenders. Marginalised farmers are small size cultivators, with a lack of social privilege and inadequate technical knowledge, due to which the moneylenders have been charging high-interest rates on them. It will put these farmers in the worst situation.

2.3.3 The Non-Farm Sector and Development of Agricultural Sector in India

Agriculture households have different means of income from cultivation, livestock, other agriculture activities, non-agriculture enterprises, wage/ salaried employment and others. However, the majority of the farming households in India are small-scale cultivators and

economically weak (Fann and Chan-Kang, 2005). Due to the limited landholding size and lack of economic capital, small scale agriculture households are unable to meet their livelihood expenses when they rely entirely on cultivation. In order to ensure a better standard of living in rural areas, income has to be generated through different sources other than cultivation. From 1993–94 to 2011–12, the share of agriculture in rural income declined from 57% to 39%. Its share in rural employment decreased from 78% to 64%. However, this transition is not uniform; it differs widely across the sectors and states (Chand et al., 2017). Prima facie, the above data gives an idea that the decline in families' income in rural areas is the consequence of dependency on agriculture alone for their livelihood.

To get a better income for agricultural households, members have to engage in agricultural as well as non-agricultural activities simultaneously. It is called livelihood diversification. Elias (1998) defined livelihood diversification as "the process by which rural families constructed a diverse portfolio of activities and social support capabilities in their struggle for survival and to improve their standard of living". Different scholars have conducted many studies regarding the importance of non-farming income and employment in rural areas. There are studies about non-farm employment in India, which are based on the pan-India level, state-level and village studies etc that demonstrate the significance of the non-farm sector and jobs (Lanjouw and Shariff, 2004; Jatav and Sen, 2013). These inquire about the linkages between farming and non-farming employment; the effects of non-farm employment on poverty in the specified areas and its effects on income, whether it prevents the rate of migration from rural to urban areas, etc.

The non-farm sector employment is highly diverse and heterogeneous. The characteristics and influence of the non-farm sector in rural areas vary from region to region. The agriculture wage, agriculture productivity, land availability for cultivation, consumption level in the near urban centre, etc. are factors that directly affect the expansion of non-farm sectors in rural areas (Lanjouw and Shariff, 2004). Even though the non-farm sector is heterogeneous, it can be broadly classified into 1) regular salaried non-farm employment, 2) casual wage labour in the non-farm sector 3) non-agricultural self-employed activities. Regular salaried employees in the non-farm sector have only stable and regular salaries while the rest do not have a steady income. Vaidyanathan (1986) studied the relationship between the importance of non-farm employment and unemployment in rural areas. He finds a solid and positive relationship between non-farm employment and unemployment in rural areas. Due to the incapacity of the

agriculture sector to provide a job for all people, the non-farm sector would play an essential role in picking up part of the lack. This will lead to an improvement in the income of agricultural households.

The development of the non-farm sector may have occurred due to either two reasons: high investment in the non-farm sector as a result of higher returns from agriculture or migration to the non-farm sector due to the inadequacies in the farming sector caused by the distress. Jatav and Sen's (2013) study found that non-farm sector development in rural areas is driven primarily because the distress in agriculture probably put them in poverty. Lanjouw and Murungai's (2009) study stressed that non-farm employment would help reduce poverty in rural areas. In their study, agricultural wage and non-farm sector employment were correlated- development of non-farm sector helps improve the agricultural wage. At the same time, agricultural wage and poverty are inversely proportional; when agricultural salary increases, the rate of poverty will decrease. It means that the growth of the non-farm sector is helping to reduce poverty in rural areas, especially that of agricultural workers.

As discussed earlier, non-farm employment would help rural agricultural households get a better income for their livelihood, generate new employment opportunities, reduce hunger, etc. It means that non-farm sector development predominantly would help the small-scale farmers in India. Multiple studies and surveys such as the Situation Assessment Survey (2005) demonstrated that small scale farmers' dependence on income through the non-farm sector increases as the size of landholding decreases. Farming in a minimal area is not enough to sustain the lives of farmers. The non-farm sector gives an alternative way for their livelihood. In India, the vast majority of the agricultural households belong only to the small-scale cultivator's category. The development of the non-farm sector and agriculture have to occur together. Only then, a consistent income can be generated in agricultural households, especially for the small-scale farmers in rural areas.

Scholars like Bhalla (2002) and Chand (2002) indicate in their studies that the non-farm sector showed positive growth in rural areas. Jatav and Sen (2013) put forward the idea that farm employment is about to reach saturation even though 53-60% of Indian people rely on agriculture and allied activities for their livelihoods. This number significantly needs to be reduced. Increasing non-farm employment in rural areas is one of the best ways to overcome this high dependence on agriculture. The non-farm employment in rural areas has its own share of problems. While analysing the NSSOs round of survey about employment and non-

employment in different years, an increase in the number of casual labourers in the total number of employees can be seen; this mainly belongs to the non-farm sector and owing to the implementation of the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA). There is also a surge in non-farm employment, mainly females (Jatav and Sen, 2013).

However, there are entry barriers to getting a job in the non-farm sector. The accessibility towards non-farm work is conditional on many factors like education, age, gender, wealth, etc. Education plays a vital role in acquiring a job in the non-farm sector. After analysing different village studies, Lanjow and Shariff (2004) found that better privileged (mainly high-educated) people have much easier access to non-farm employment. When the employer examines the skill and knowledge of the person applying for the job, education will be considered a significant criterion. As the demand for non-farm sector jobs increases, educated people would be preferred for the job. The majority of the marginalised and underprivileged people who wish to shift to non-farm employment have less education. This entry barrier, in turn, compels them to depend on farm activity for their livelihood. Ravallion and Datt (1996, 1999) studied the effectiveness of non-farm growth in reducing poverty. It has varied widely across the state. In the cases of Kerala and Bihar, initial literacy helped alleviate hunger and facilitate access to non-farm sector employment. It is thus evident that education is pivotal for finding employment outside the agricultural sector. If education is not accessible to the common people, especially in rural areas, people will have to rely on agricultural jobs again.

Connectivity and personal terms with employers make it easy to enter the non-farm employment sector—people with low social status have difficulty making a connection. The deprived find it difficult to compete with the privileged (predominantly the middle and upper-class people). Proficiency in technology helps get new contacts and get to know about the job quickly. Currently, many casual jobs are advertised through online platforms, the access to which would be easy for the privileged but not for the deprived class. To avail online facilities, there are two basic aspects: 1) the internet network availability and 2) availability of devices for the use of the internet such as mobile phones, laptops etc. The possibility of accessing these are significantly less in rural areas. These underprivileged conditions, such as fewer connections and lack of online accessibility, become barriers to getting non-farm employment, especially for those engaged as casual wage labourers in the agriculture sector.

Dreze (1998) marked that paying the bribe plays a decisive role in getting non-farm employment. Non-farm sector employment is mainly under the private sector; hence, forming a mechanism regulating corruption is also significantly less. The wealthy people have more chances to get a job than others. Dreze also made an observation that the non-agriculture job clustering is forming. Those who initially succeeded in entering help others as well, usually of the same caste or someone related. The low social status thus became a deprivation for people to find non-farm employment. There are many barriers, especially for the small and marginalised farmers in gaining access to such opportunities. In order to overcome the crisis in agriculture, it is a need to break these barriers, by improving the accessibility of non-farm employment to marginalised farmers.

2.4 Conclusion

The condition of farmers has been worsening over the years. There are different manifestations of agricultural distress in India, even though it varies from region to region and time to time. Some of the manifestations of agricultural distress are farmers' suicides, lack of income, the decline of the share of agriculture to the total GVA etc. Some of the causes discussed in this chapter, behind the agricultural distress are high indebtedness, lack of credit availability, money lenders, slower development of the non-farm sector etc. Immediate intervention of the state is essential for the recovery of the agricultural sector in India. Being the most significant employment generating sector, it should have had a better say in democracy, but that has not been the case in India. It is also evident that political parties have not been able to convert their promises into reality. State support to farmers is not just a rescue measure but a justice that the sector deserves that would in turn secure the food security of this country. The following chapter will look in detail, at the agricultural distress in Kerala and some aspects pertaining to the state in the agriculture sector

Chapter -3

AGRARIAN DISTRESS IN KERALA: AN OVERVIEW

3.1 Introduction

Kerala's agriculture sector is distinct in several ways. It has “(1) a highly fragmented and small size of holdings, except in the plantation sector, (2) homestead farming with mixed crops yielding high income, (3) a larger area under commercial crops, especially capital-intensive perennial tree crops, (4) export orientation of crops, such as spices, cashew, rubber, coffee, tea, etc., (5) credit and hired labour-intensive cultivation, and (6) higher indebtedness of farmers” (Bright & Joseph, 2005).

From the analysis of the census of 2001 and 2011 of the population of cultivators and agricultural labourers in the state, we can discern that there has been a significant fall in their numbers and share in the total population. The rates of decline of cultivators and agricultural labourers in the decade are 7.4% and 18.4%, respectively. Nonetheless, there has been a slight rise in the number of females in the cultivator workforce in this decade. In contrast to that, this decade has shown great growth in the urban population. The reduction in the number of people in the activities related to agriculture is caused due to the greater returns from other sectors like business, entrepreneurial ventures and the service sector. The migration of labourers to construction, manufacturing and service sectors has caused a decrease in the population that were agricultural labourers in Kerala.

Data about the total population in Kerala, the population of cultivators and agricultural labourers, based on the 2001 and 2011 censuses are given in the table below.

Table 3.1: The total population in Kerala

	2001			2011		
	Total	Male	Female	Total	Male	Female
Rural	23574449	11451282	12123167	17471135	8408054	9063081
Urban	8266925	4017332	4249593	15934926	7619358	906308
Total	31841374	15468614	16372760	33406061	16027412	17378649

Source: Author's estimation using census, 2011 and 2001

Table 3.2: The population of cultivators in Kerala in 2001

Total (724155)		Male	Female
		83.14	16.86%
Rural	95.83%	83.24%	16.75%
Urban	4.16%	80.5%	19.5%

Source: Author's estimation using census, 2011

Table 3.3: The population of cultivators in Kerala, 2011

Total (670253)		Male	Female
		81.6%	18.4%
Rural	87.6%	81.6%	18.4%
Urban	12.4%	81.7%	18.3%

Source: Author's estimation using census, 2011

Table 3.4: The population of agricultural labourers in Kerala

2001				2011		
Total (1620851)	Male Female		Total (1322850)	Male Female		
	66.5%	33.5%		64.9%	35.1%	
Rural	92.9%	66.6% 33.4%	81.9%	63.7%	36.3%	
Urban	7.01%	66% 34%	18.1%	69.9%	30.1%	

Source: Author's estimation using census, 2011

There has been a sudden decrease in the area of operational holding because of the soaring demand for land for housing, caused by a rise in the population. In 2016, the size of operational holdings in Kerala was at an average of 0.22 hectares (54.36 cents). Between 1990-91, 0.37 hectares was the average size of holding, while in 2000-01, it was 0.24 (State Planning Board, 2016). Thus, in the duration of 20 years, there was nearly 40.5 per cent decrease in the area of operational landholding.

3.2 Land Use-Pattern in Kerala

The cultivated area in Kerala is around "67.6% of the total geographical area, the net sown area is 52% and 16.83 % of the total geographical area sown more than once" (Government

of Kerala, 2017). Of the total geographical area of Kerala, the percentage of the net sown area expanded from 48 per cent in 1956–57 to 57 per cent in 1974–75. Up until 1999–2000, the net sown area percentage remained the same once it attained 58 per cent from this level; it then fell to 52 per cent in the year 2016–17 (Johnson, 2018). In total, a 4% increase occurred in the net sown area since the formation of the state in 1957. It has been mainly due to the migration which occurred between the period of 1920s to 1970 into the district of Wayanad. “The migration started due to the depression in the agricultural commodity, and most of the wasteland in Wayanad was converted into cultivation land and the extension of cultivation continued during the period of land reforms when migrants who were tenants in the erstwhile Malabar region became owners of their leased-in land” (Joseph, 2002). Since the population density of Kerala is very high, the state wanted to use every bit of the living by diversifying the use of the lands for non-agricultural purposes and other potential usages. (Karunakaran, 2014).

A 2017 report by the Directorate of Economics and Statistics, Government of Kerala stated that of the total geographical area, 67.6% was cultivated area while the net sown area accounted for 52%. Approximately 16.83 % of the cultivated area was found to be sown more than once. One-fourth of the total area consists of forest land. About 11.8% of the area was used for non-agricultural purposes. In another way, the total area could be divided into two; “land that is available for cultivation (net sown area, cultivable wasteland, current fallow, fallow other than current fallow and land under miscellaneous tree crops) and land not available for cultivation (it includes, land put to non-agricultural use, barren and uncultivable land, permanent pastures and other grazing lands beside forest area)” (Government of Kerala, 2017). An increase in agricultural production was achieved only through the improvement of productivity in Kerala because, in the state, the scope of increasing the cultivation area is very marginal.

3.3 Cropping Pattern in Kerala

Kerala is unique in some ways for agricultural production. The diversity prevailing in the soil, climate condition, and topography help to cultivate different varieties of seasonal and perennial crops in Kerala (Thomas, 2004). In 2015, a report of the NITI Aayog indicated that 62% of the total cropped area in Kerala consisted of cash crops, 10% of food crops, and the rest 28% of the total cropped area consisted of other items. More than 80% of the total cropped area in the state is used for the cultivation of 11 major crops: coconut, rice, rubber,

tapioca, pepper, cashew nut, coffee, banana and other plantains, areca nut, cardamom and tea.

Kerala mainly consists of four types of cropping system: “a) based on coconut farming, mixed cultivation system, crops like pepper, areca nut, cocoa, clove, banana, vegetables, green manures and cover crops (planted to prevent soil erosion, increase nutrients in the soil, and provide organic matter) as well as intercrops with coconut farming; b) rice-based system in low lands with single or two crops of paddy, summer vegetables, pulses or oilseeds with or without aquaculture component; c) Plantation, only producing any single crop like coffee, tea, rubber, etc; d) homestead farming, in which trees (jackfruit, papaya, etc.), food and fodder crops, livestock, fishery and poultry like components will comprise and cultivating” (Government of Kerala, 2021).

After the formation as a state, agriculture in Kerala also witnessed tremendous changes. The data available from the Directorate of Economics and Statistics, Government of Kerala, substantiated that there has been a decline in the area under food crops since the late seventies and a significant expansion in the area under non-food crops. Earlier paddy cultivation was the major crop for cultivation. However, by the early sixties, the proportion of area under rice cultivation to the total area began to fall and in the mid-seventies, the decline was in absolute terms and coconut replaced the same. Some of the factors that contributed to this decline were the rise in the cost of cultivation, stagnant prices of rice, and profitable alternative use of paddy lands, etc. (Unni, 1983). From 66.63 per cent of the total cropped area during 1960-61, the area under food crops fell to 12.05 per cent during 2009-10. The situation is however just the reverse in the case of non-food crops, which went up from 33.37 per cent of the total cropped area in 1960-61 to 87.95 per cent of the total cropped area in 2009-10 (Karunakaran, 2014).

The 2016 Directorate of Economics and Statistics report found that cash crops constituted 62.8% of the total cultivation area, while plantation crops such as rubber, tea, coffee, cardamom, etc. accounted for 26.8%. Coconut cultivation consisted of the largest area (30%), followed by rubber (20.9%), paddy (7.4%), and banana and other plantains (4.45%).

Many factors will affect the shifting of the cropping pattern. G.Mythily (2012) in her working paper called “Supply Response of Indian Farmers: Pre and Post Reforms” expressed that the decisions of the farmers impacted the shift in cropping pattern. The decisions on the purpose

of allocation of land (agricultural or non-agricultural), crops to cultivate, area to be allocated for cultivation etc. were made by the farmers based on factors such as expected price, availability of labour, agro-climatic conditions, the impact of government strategies, facilities for irrigation, cost of cultivation, expected yield etc.

3.4 Manifestation of Agrarian Distress in Kerala

Many scholars have talked about the agrarian distress in Kerala. Every distress has a different manifestation. The manifestation of agricultural distress might vary from one place to another. The various manifestations of the agrarian crisis in Kerala are as described below.

3.4.1 Contribution of Agricultural Sector to the Total Kerala State GDP

To understand the growth of any sector, it is necessary to understand very clearly what percentage of GDP is contributed by that sector. Agriculture (including livestock and dairying), forestry and logging, and fishing are the major subsectors of agriculture and allied sectors that contribute to the Gross Domestic Product (GDP) of Kerala. Thus, the GDP from the sector includes the total value of goods and services produced from agriculture (principal, minor and miscellaneous crops (products and by-products) and livestock (milk, meat, egg, wool, hair, dung, honey, etc.). In 1956-57, 53% of the total net state domestic product (NSDP) was contributed by the agriculture sector alone. During 1957-58, while the per capita income from agriculture was Rs.188 at the national level, it was Rs.243 in Kerala. These statistics exhibit the importance of the agricultural sector of Kerala on the economy of the state and daily livelihoods. The following data depicts the agriculture sector's percentage share to the total GDP in Kerala from 2004-2014

Table 3.5: Share of Agricultural Sector to the total GDP in Kerala in Percentage (2004-05 constant price)

Year	Percentage
2004-05	14.24
2005-06	13.74
2006-07	11.69
2007-08	10.51
2008-09	10.16
2009-10	9.03
2010-11	7.83
2011-12	7.81
2012-13	7.48
2013-14	6.84

Source: GDP of Kerala & India 2004-05 to 2013-14, Dept. of Economics & Statistics, Kerala and website of Planning Commission (<http://planningcommission.nic.in>)

In the table given above, it can be seen that the contribution of the agricultural sector to the GDP has significantly decreased over the years. As mentioned earlier, the agricultural sector accounted for more than half of the GDP, declining to just 14.24% in 2004-05. Until 2014, we can see that the share of the agricultural sector in GDP had been declining steadily. At no point can we see the graph rising even slightly. During 1955-56, approximately 53.1% of the population was associated with agriculture. However, according to the 2001 census, the total population of people in Kerala working as a cultivator had reduced to 2.3% and 5.1% of the total population engaged as agricultural labourers. When the 2011 census was examined, there was another decline in the number of cultivators and agricultural labourers in Kerala. Only 2.0% of the total population were cultivators and only 4% were engaged in agriculture as labourers. The rate of decline of cultivators and agricultural labourers are 7.4% and 18.4% respectively over the decade.

This clearly shows us the unequal development of the different sectors in Kerala. The agricultural sector has not been able to grow on par with that of the service and the industrial sectors. This unbalanced situation in different sectors is also leading to a decline in people's per capita income, thereby marking a decline in the per capita income of the farmers. At the same time, there has been a fall in the population involved in agricultural activities in the state as a consequence of increased returns from other entrepreneurial ventures or business and service sectors. A large number of agricultural workers in Kerala are forced to migrate as a labour force to the construction, manufacturing, and service sectors. This decline in the

share of the agricultural sector to the total GDP in the state is appraised as the manifestation of agrarian distress in Kerala.

3.4.2 Farmers' Suicide in Kerala

Farmers' suicide is considered the worst and most critical manifestation of agrarian distress. Kerala has also witnessed farmers committing suicide. According to the report of the National Crime Record Bureau, Kerala has one of the largest farmers' suicide rates among the states in India. A high rate of farmers' suicide occurred during the period 2003-07. The Kerala government constituted a committee to study the farmers' suicide that occurred in the state of Kerala under the economic and statistical department. According to a survey report on farmers' suicide in Kerala, 979 suicides occurred in these families between 2003-2007. It had collected details of 944 families, out of which at least one farmer suicide had taken place.

Table 3.6: District-wise details of the number of suicides

<i>Sl No</i>	<i>Districts</i>	<i>Number of Families</i>	<i>Number of suicides</i>	<i>suicide percentage</i>
1	Kasaragod	103	106	10.83
2	Kannur	111	113	11.54
3	Wayanad	306	317	32.38
4	Kozhikode	41	46	4.69
5	Malappuram	11	12	1.23
6	Palakkad	86	90	9.19
7	Thrissur	75	78	7.97
8	Ernakulam	4	4	0.41
9	Idukki	102	106	10.83
10	Kottayam	9	9	0.92
11	Alappuzha	20	20	2.04
12	Pathanamthitta	14	15	1.53
13	Kollam	15	16	1.63
14	Thiruvananthapuram	47	47	4.81
	Total	944	979	100

Source: Report of survey on farmer's suicide in Kerala, Directorate of Agriculture, Kerala 2016

While analysing the data from Table 3.6, we can understand that the highest number of suicides occurred in the Wayanad district followed by the Idukki district. In Wayanad, 317 farmers committed suicide between 2003-07 and 106 farmers committed suicide in Idukki district. Wayanad and Idukki have shown us some similarities in agricultural production.

More than 100 farmers' suicide occurred in Kannur and Kasaragod districts. The lowest number of suicides happened in the Ernakulum district- only 4 farmers committed suicide. Only one suicide occurred in each family in Kottayam, Alappuzha, and Thiruvananthapuram districts. Among the rest, more than one member had committed suicide during the period in some families. Within 17 families, there occurred multiple suicides, where more than one member had committed suicide for the same reason (Government of Kerala, 2009).

During the same period, it was found that the main profession of all the victims was not agriculture alone; they were either regular salaried employees or self-employed in the non-agricultural fields or pensioners or housewives or students or so. 58.63% of the victims were self-employed in agriculture and 21.96% were casual labourers. The share of victims from other categories was comparatively small. This information points out that not all individuals who committed suicide entirely engaged in the agriculture sector. Few of those who committed suicide were rather close dependents of the victims. The burden of indebtedness, absence of continuous income, lack of savings, and other financial problems aggravated the situation, compelling them to commit suicide.

As per the report of a survey on farmer suicides in Kerala, the majority of the farmers who committed suicide belonged to the small and marginalized farmer's category, based on their possession of the land. A survey was conducted by the Department of Economics and Statistics, Government of Kerala, in 944 families where farmer's suicide occurred. Out of these, 302 families (approximately 31.99%) possessed around 1-2.5 acres of the land. Land possession of around 20.97% of the families was less than an acre. 40 families possessed more than 5 acres of land. The survey reveals that after suicide, the extent of land possession came down due to the liability and other unexpected expenses incurred in relation to the suicide (Department of Economics & Statistics, 2009). The report claimed that the number of families that possessed less than 1 acre of land has increased and more than 1 acre of land has decreased. It indicated that the crisis in the agriculture sector primarily affected the small and marginalized farmers, who once again plunged into more poverty and financial crisis. In reality, agriculture could not attain the expected production and productivity. Hence, it has adversely affected the sustainable goal of the state too. Even though agriculture may not be its only component to measure the condition of rural people, it is an important component of most rural economies, especially in developing countries. The people in rural areas in Kerala also are largely dependent upon agriculture. Hence, the decline in productivity level severely

affected the lives in rural areas of Kerala. The continuation of this situation will lead to the abandonment of those dependent on agriculture for their livelihood and migration to cities to become unskilled labourers.

3.5 Causes of Agrarian Distress

There are various reasons for the agricultural crisis. It varies from one crop to another as well as from region to region. However, there are some common causes behind distress in all kinds of agricultural production. Some of them are examined in detail below like high indebtedness, high cost of production, rise in imports and decline in export.

3.5.1 High Indebtedness

It is important to take a look at the economic situation of agricultural households in Kerala. *‘Income, expenditure, productive assets and indebtedness of agricultural households in India’* a survey conducted by NSSO in 2002-03 and 2013-14 demonstrates the economic condition of agricultural households in Kerala. The financial income of farmers was calculated by adding up their wages or salary, net receipts from cultivation, farming of animals and non-farm business.

As per the 2003 data, the total annual cultivation income for a farming household was Rs. 13,440. The total income was Rs. 48,048. The survey analyses the annual consumption expenditure of Kerala’s farming households in detail and finds it to be Rs. 31,296. The difference between total annual income and total annual consumption expenditure of agricultural households in Kerala was (-)2952 rupees. From these figures, we understand that the savings of a Kerala agricultural household were negative. They couldn’t meet their demand through their income. In the 2012-13 monthly data of the same, the income was Rs. 5254, Rs. 3531, Rs. 575 and Rs.2529, from wages/salary, net receipt from cultivation, farming of animals and non-farm business, respectively. In total, Rs.11,888 was the average annual income of agricultural households in Kerala. The average monthly consumption of the same was nearly Rs. 11008. The monthly savings of an agricultural household was found to be nearly Rs. 880 only.

In the 2013-14 *‘Income, expenditure, productive assets and indebtedness of agricultural households in India survey’*, the accountable income from the cultivation part was only 34%. Nearly half (44%) of it comes from salaries and wages. The families which completely rely

upon cultivation income will be in a serious crisis. Income is less and expenditure is high; hence they naturally would want to find out other ways to survive. Farmers are again forced to take loans from the bank or private lenders for their livelihood and emergencies like hospital cases, crop damage, marriage, education etc.

The magnitude of indebtedness is higher in rural areas of Kerala than that of the national average. This is due to factors such as the increased “concentration on cash crops, higher value of assets per household and the availability of credit through the good network of both formal and informal credit” (Jeromi, 2007). The amount of outstanding loan per agricultural household in Kerala is at an average of Rs.2,13,600- the highest among all Indian states; the total number of agricultural households in Kerala with an agricultural loan is estimated to be 10,90,800 which is 77.7% of the total agricultural households in the nation (Government of Kerala, 2016). Due to the good network of formal credit systems available in Kerala, the farmers are taking the majority of the loans from the formal credit system (Sadanandan, 2014). Another striking fact about the utilization of agricultural loans in Kerala is that the farmer households borrow mostly for non-agricultural purposes; the share of non-farm business in total loans borrowed was found to be more than the share of expenditure on farming (Jeromi, 2007).

3.5.2 High Cost of Production

Understanding the cost of cultivation is important for understanding the condition of farming in the corresponding region. The relative profitability in farming is determined by the value of output and the cost of production (one of the factors to determine the base level price of individual commodities) (George, 1988). Scholars like P.D Jeromi pointed out that the agricultural sector in Kerala mainly cultivates cash crops, so naturally, the cost of production is higher.

The Government of India and the state governments have initiated measures for obtaining the cost of cultivation of important crops and several estimates covering different crops in different regions are available. Most of these estimates use three different concepts of cost: cost A, cost B, and cost C methods adopted in the Farm Management Studies (George, 1988). Cost A calculation consists of labour-hired human, animal and machine, seed or seedlings, farmyard manure, chemical fertilizers, plant protection measures, land revenue, cess from irrigation, repair, and maintenance charge of implements and interest on working capital, i.e., as whole cash and kind of expenses incurred by the cultivator. The cost-B calculation is taken

by adding the value of interest on fixed capital (excluding land) and the rental value of owned land. The cost-C calculation is adding the imputed value of family labour to cost-B.

While analyzing ‘*The Survey of Key Indicators of Situations of Agricultural Households in India*’ by NSSO in 2013, it can be seen that the average monthly expense for crop production in Kerala is higher than the national average. In Kerala, it is Rs.2270 while in India it is Rs.2192 (NSSO, 2014, p.36). Production costs do not rely on any single factor but on multiple factors like cost of seed, irrigation, fertilizer, lease for the land, human labour, animal labour, minor repairmen of machinery and equipment, plant protection chemicals, the interest of the capital, lease of the land and other expenses, etc. The influence of these factors varies according to the nature of the crop. Let us examine the difference in the cost of production of crops grown in Kerala during the period 2004-2014:

Table 3.7: Crop wise total cost of cultivation per hectare from 2004-05 to 2013-14 (in Rs.)

Crop	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
Pepper	20438	24082	25856	39207	41568	49990	58957	66986	66498	76517
Coconut	23619	23738	25840	30159	33919	37429	41316	45130	48938	58230
Arecanut	35656	29886	36747	46128	49249	47878	63397	52188	49794	59956
Banana	89490	86449	99345	131333	101133	127586	128514	159202	158533	156015
Ginger	61235	70115	68436	91150	100998	137880	135389	106328	105167	113184
Turmeric	39591	49045	48047	62766	62029	85225	87276	84409	89901	98154

Source: Key Indicators of Situations of Agricultural households in India, 2013, NSSO, Govt. of India

Coconut has been one of the largest cropping areas in Kerala. In 2004-05, the cost of production of coconut per hectare was only 23,619 rupees. In 2014-15, it rose to 58,320 rupees. It means that the cost of cultivation is nearly 1.5 times higher than in 2004-05. The high cost of cultivation of coconut is a consequence of factors such as hired human labour, cost of manure and use of chemical fertilizers. Between 2004-14, the cost of hiring human labour increased by 172%, while the cost of manure & fertilizer, the second major component, increased by 98%. This may have been caused by the lesser application of fertilizers and other manures in coconut palm fields. The following table elaborates on the year-wise cost of these components and the total cost of cultivation of coconut in Kerala during the given period (division, 2016). In this same period, the cost of production of arecanuts per hectare has increased from 35656 rupees to 569956 rupees. Its rate of increase during

this period of 10 years is 68 per cent. While examining the figures given in Table 3.7, the cost of production of bananas increased from Rs.0.89 lakhs per hectare in 2004-05 to Rs.1.56 lakhs per hectare in 2013-14 with a 74.3 per cent growth in the period. Whereas the cost of ginger production increased from Rs.0.62 per hectare to Rs.1.13 lakhs per hectare between 2004-14 at a rate of increase of 84.8 per cent. Further analysis of the cost of cultivation of pepper and ginger per hectare exhibited during 2004-2015, the production cost of pepper per hectare increased by an all-time high of 274 per cent. The cost of production of turmeric, another important spice produced in the state, increased from Rs.39591 per hectare to Rs.98154 per hectare during the above period and the rate of cost growth is 148 per cent.

The following table shows the item-wise average monthly expenditure for crop production per agricultural household engaged in crop production (overall) in Kerala in comparison with an all-India average.

Table 3.8: Item wise average monthly expenditure and receipts for crop production

S.No.	Expense Item	Kerala (In Rs)	India (In Rs)
1	Seed	105	250
2	Fertilizer/ manure	573	526
3	Plant protection chemicals	73	165
4	Irrigation	6	70
5	Minor repair & maintenance of machinery & equipment	16	43
6	Interest	86	32
7	Lease rent for land	186	158
8	Human labour	1074	465
9	Animal labour	14	32
10	All other expenses	136	455
Total		2270	2192

Source: Key Indicators of Situations of Agricultural households in India, 2013, NSSO, Govt. of India

Nearly half of the monthly cost of farming is meant for human labour wages. The largest share of the cost of cultivation is allocated to human labour. Due to the cultivation of cash crops, dependence on credit is high in Kerala. Hence, the interest for agricultural credit is more than twice the national average.

3.5.3 The Decline in Export and Rise in Import

Traditionally, Kerala has been a major exporter of commodities such as pepper, cardamom, ginger, coffee, cashew kernels, coir and coir products, tea etc. (Jeromi, 2007) The topographic, climatic and soil-related conditions of Kerala enable the cultivation of a wide variety of seasonal and perennial crops. Currently, more than 80 per cent of the total cropping area in the state is used for the cultivation of 11 major crops: coconut, rice, rubber, tapioca, pepper, cashew nut, coffee, banana and other plantains, areca nut, cardamom, and tea. An analysis of the changes in the cropping pattern of the state from 1956 shows that there has been a persistent shift in favour of cash crops at the expense of food crops (Thomas, 2004). From 45 per cent of the total cropped area, the area under food crops dropped to 10.32 per cent between 1960-61 and 2013-14, while the area under cash crops witnessed a sharp shoot from 36.6 per cent to 62.30 per cent during the same period. The gradual emergence of cash crops as the dominant crop is quite notable in the development of the agriculture sector in Kerala in the last five decades. The notable development of cash crop farming in the state, particularly export-oriented crops as well as the significant decline in the area under staple food crops, corresponds to the general trend in cropping patterns of nations that have undertaken neoliberal trade reform.

Rubber, tea, coffee, and pepper were the major exporting commodities from Kerala. Export-oriented cash crops including natural rubber accounted for 26.8 per cent of the gross cropped area in the state (Government of Kerala, 2016). More than 80% of the rubber and pepper are exported from Kerala. While exports of commodities from Kerala suffered a setback in recent years, there was a rise in the import of commodities that were produced and exported from the state for decades. The import of rubber, pepper, cardamom, coffee and tea increased significantly (Jeromi, 2007).

India as a member of the World Trade Organization and signatory to the Uruguay round of GATT is required to dismantle all the physical barriers of import and replace them with a suitable tariff in a phased manner. This agreement sought to boost agricultural trade through a significant reduction in protectionism, thereby expecting the prices in member countries to move closer to international prices. Due to this market integration, the maintenance of the domestic prices and cost of production at a level lower than the potential exporting countries would best protect the domestic market against imports. It can only be achieved if the supply growth keeps pace or is higher than the domestic demand (Chand, 1998).

As Ramesh Chand pointed out, it is not possible to increase exports without restricting the cost of production. However, based on the report, *Analytical Study on Agriculture in Kerala* published by the Government of Kerala, one can examine the cost of production of pepper, areca nut, turmeric, and coconut exported from Kerala. The report stated that there was a record increase in the cost of pepper cultivation in Kerala, (274 per cent during 2004-14). The actual cost of cultivation of pepper shot from Rs.20438 per hectare in 2004-05 to Rs.76517 per hectare by 2014. The cost of turmeric too increased from Rs.39591 per hectare to Rs.98154 per hectare during the above period. The cost of cultivation of areca nuts in the state which was Rs.35656 per hectare in 2004-05, increased to Rs.59956 per hectare at a rate of 68 per cent in 10 years. The total cost of cultivation of coconut in the state also increased by 146 per cent between 2004-14 (Rs.23619 per hectare in 2004 and Rs.58230 per hectare in 2014). These figures emphasize the fact that the agricultural exports of the state of Kerala as a whole have been adversely affected.

Significant growth in exports can be achieved, only if the agricultural output is produced more than domestic demand. While looking at the economic survey prepared by the Kerala state planning commission under the Government of Kerala in 2016, one can analyze the production of different potential exporting crops produced in Kerala. Coconut has the largest share in the gross cropped area in Kerala. It has the largest area under the crop in the country. But while comparing the production, Kerala is in third place. Low productivity is a major source of shrinking production. According to the 2016 economic survey, only 7535 nuts per hectare of coconut were produced in Kerala, but 14873 nuts per hectare in Tamil Nadu and 13808 nuts per hectare in Andhra Pradesh. The main reason for the decline in coconut productivity is due to root wilt diseases, poor crop management, and the existence of senile, and unproductive palms. From 2014 to 2015-16, pepper production recorded a decline from 70000 tonnes to 55000 tonnes in India. Pepper production is mainly affected by low productivity and diseases.

India is the largest producer of raw cashew nuts in the world. However, over the last decade, there has been a considerable decline in both the area under cultivation as well as the production of cashew in Kerala. The production that stood at 60 thousand MT in 2004-05, declined to 33.3 thousand MT in 2015-16, which is extremely alarming. Another major crop cultivated in Kerala is Natural Rubber (NR). In India, natural rubber production declined by 12.9% from 6.45 lakh tonnes in 2014 to 5.62 lakh tonnes in 2016. The vast majority of rubber

production in India comes from Kerala. The production of rubber has too witnessed a setback- the total production came down from 5.07 lakh MT in 2014-15 to 4.38 lakh MT in 2015-16. The volume of export came down from 1002 tonnes in 2014-15 to 865 tonnes in 2015-16. These figures show that Kerala's export potential crops have not been able to produce above domestic demand. Therefore, the import of domestically produced agricultural products to Kerala from other countries is increasing like pepper from Vietnam and Indonesia, Cashew nut from Brazil and Vietnam, Rubber from China etc.

3.5.4 Lack in Productivity

The maximum amount of production from the minimum area of cultivation would be better for the development of agriculture. The productivity could help overcome the limitations caused by the limited availability of agricultural land. It would also make small scale cultivation better profitable. In reality, the yield gap (the difference between the actual and maximum attainable productivity) is high in Kerala (Government of Kerala, 2021). The Kerala Agriculture University (2010) studied the productivity level of different crops in Kerala and found that no other crops show better productivity except rubber. Studies on the productivity of crops showed that the productivity of most crops in Kerala was lower than in the other states in India (Government of Kerala, 2016).

Kerala witnessed a sharp decline in productivity due to the continuous floods. Except for paddy, cardamom and tapioca, the productivity of the rest of the crops were low, and that of cashew, nut, coffee, pepper, and rubber appeared particularly worrisome (Government of Kerala, 2021)

Ruling governments were promised to enhance the productivity of crops, but this could not be materialised. Different factors might have been responsible for the low productivity during their periods. Both the governments could not fruitfully implement the scientific cultivation, existing use of machinery and technology. Research that stays in the lab does not come to land. The Kerala state faces challenges such as supplying certified and high yield varieties of seeds, implementing better soil and irrigation management during cultivation, and adopting and applying scientific cultivation in a better manner.

3.6 Structural Limitations

The government of Kerala faces different structural limitations in matters related to agriculture. Kerala produces cash crops such as coffee, tea, rubber, on a small scale and

plantation level, which the Ministry of Commerce manages through different commodity boards. While these products have an international market, the role of a state government in India would be minimal in determining the price of agricultural products in the international sphere. Earlier, the boards had a monopoly over the respective crop markets, but the board can now only oversee the international trade of these products (George and Krishnaprasad, 2006). Until 1992, coffee, the production of which in Kerala accounted for nearly 22 per cent of the national production, was sold directly to the coffee boards by the growers. It was only later that the Government of India was allowed to freely sell coffee products in the domestic as well as international market. This led to the monopoly of private cartels in the coffee market. International and domestic agro-industrial companies came to play a vital role in procuring and determining the price of coffee beans. The price of coffee beans declined drastically after the entry of private cartels (George and Krishnaprasad, 2006). It in turn affected the income of farmers, wages of workers, the rent of land, etc. The average price for coffee beans per kilogram would cost between 100-150 rupees at present, but domestic companies like Raga, Tata, and international companies such as Nestle and Bru are selling the coffee powder at double the rate of coffee beans in the market. As a state government, it has limitations intervening in the procurement and assurance of better price for coffee. The Union government is supposed to take care of this situation, which is not being done. The case of other cash crops in Kerala such as rubber, tea, etc are also similar.

The WTO-India Agreement on Agriculture, led to the removal of protectionist policies in the country. After the AoA came into effect, quantitative restrictions on imports were replaced by tariffication as a consequence of which the import of agricultural products from other countries has increased (Bhalla, 2006). Countries with similar geography and agro-climatic conditions like India would produce the same agricultural products as that of India's regional economies, import their agricultural products in the Indian market and increase competition. The industries and people would choose the cheapest one among the imported and domestic products in the market.

3.7 Conclusion

With Kerala's agricultural sector facing severe backlash due to many factors, the state has been stuck in a vicious circle, struggling to save the sector and the ones who live off its income. It is evident from official studies that the contribution of agriculture towards the total GDP of the state has been on a decline over decades since its inception, the consequence of which is an unbalance in the growth of major sectors that contribute to the economy of Kerala. Since returns from other sectors were higher, there occurred a major decline in the number of people involved in agricultural activities, with them moving to other sectors for better income and benefits. In addition, due to the inability to gain expected productivity from agriculture, farmers, especially from the marginalised groups, suffer indebtedness, inconsistency in income etc, resulting in the tendency to depend upon credits and loans to meet ends. Nonetheless, over time, these farmers, unable to repay the loans and regain any more returns from farming, commit suicide. There is, thus, an endless loop of agriculture not being able to provide for those who depend on it. With the high cost of production for the kind of crops that are produced in Kerala (cash crops) and the rising indebtedness of the farmers, Kerala has been finding it difficult to resolve its agrarian distress.

As discussed previously in the chapter, Kerala's agricultural sector is unique in its mode of production and the crops produced. Unlike most states, Kerala produces cash crops over food crops for which it is required to have higher credit for cultivation. Therefore, in order to overcome the agricultural crisis in Kerala, there is a need to frame an approach specific to the state that takes into account the local factors that shape the agricultural sector in Kerala. Since the state government is in a position to deal with this crisis at the local level, it is required to study the policies and measures it has undertaken to address the agrarian distress in Kerala. Kerala's political scenario is such that there are majorly two alliances that have been governing the state in alternate turns; namely the Left Democratic Front (LDF) and the United Democratic Front (UDF). The policies of both these alliances when in government have been different and has had a significant impact on the agricultural sector. The following chapter will discuss in detail the various policy level differences of both governments and analyse the impact of these policies in the agricultural sector in Kerala.

Chapter 4

RESPONSES OF THE UDF AND LDF GOVERNMENTS TO THE AGRARIAN CONDITION IN KERALA

4.1 Introduction

The chapter aims to discuss the approaches of both the LDF and UDF governments towards agricultural development and crisis, their policies, achievements as well as drawbacks and various structural limitations that aided these. The first part discusses the election manifestos of both the fronts prior to the elections of 2011 and 2016. The following section tries to analyse the share of agricultural expenditure by both the governments over the years. Finally, the chapter attempts to bring forth a critical analysis of the policies on agriculture, the areas the respective governments could perform better and areas they failed to deliver.

The previous chapter explained the distress condition in the agriculture sector in Kerala. Distress is a situation of “suffering or in great danger and therefore in urgent need of help”. Distress is understood in this sense, the farmers of Kerala are in need of urgent help from the Union and state governments. The government intervention could happen in different forms such as response to the distress, interference to prevent the distress in future, development of agriculture etc. Since agriculture is under the state list of powers distributed between the Union government and the States, the interventions from the state government assume primacy and immediacy for the recovery of farmers in crisis.

In Kerala’s political context, the Left Democratic Front and the United Democratic Front are the two major alliances that have been coming to power, alternatively for some time now. Krishnaji (1979), argued that the left movement was closely associated with agrarian relations in Kerala. Therefore, it is only natural to expect any left government in power to address the crisis in agriculture in a serious manner. Similarly, the history of Congress can also be traced to a positive approach to addressing agriculture and related issues. In addition, the Kerala Congress(M), a major alliance partner within the UDF, claims to be a farmers’ party. Thus, in totality, the UDF is also expected to take matters relating to agriculture with utmost importance. Both the LDF and the UDF have been sensitive towards the farmers and their issues in the past. The interventions and policies of both fronts during the period 2011-2021 will be discussed further in the chapter.

4.2 The UDF and LDF Manifestos and their Promises

Framing an election manifesto is of utmost importance to the political parties and their alliance in an election. A manifesto is expected to put forth the demands of the people, which could significantly impact the performance of the parties and the alliances in the elections. It can be considered to act as a set of guidelines and promises that an upcoming government aims to fulfil. Manifestos are also the prime tools for election campaigns, which often reflect the ideologies and approaches of respective political parties towards different sections of society, various sectors of development, and the priorities of the political parties.

Revisiting previous manifestos can point to the fact that every political alliance and party in Kerala has seriously considered agricultural development in Kerala. Farmers had a good vote share and a voice at the time of elections, especially in rural constituencies of the state's legislative assembly. Before framing the manifesto, the political parties conducted discussions with the farmers and their organisations. In Kerala, there are different factors to be taken into consideration,

- i. Kerala is a state with high political engagement (Biju, 2011).
- ii. In the agrarian sector, Kerala witnessed the anti-imperialist and anti-feudal protests by the peasant community to protect the interest of the same (Kurup, 1998);
- iii. There are political leaders who hailed from peasant backgrounds such as V.S Achuthanandan, Pinarayi Vijayan, Kodikkunnel Suresh etc.; and
- iv. A high literacy rate and solid farmers' organisations enable the farmers to put pressure on the state government for cultivation incentives, subsidies, loan waivers, etc.

If the election manifestos could not meet farmers' expectations, it would adversely affect the election and the vote share of the respective parties. The overall process of making a manifesto is quite significant, as it reflects the ideology of political parties at the praxis level. Let us discuss the promises in the manifestos of UDF and LDF in the years 2011 and 2016 respectively.

4.2.1 The UDF Manifesto, 2011: Stress on Development and Care

The Indian National Congress-led UDF alliance along with Indian Union Muslim League (IUML), Kerala Congress (M), Communist Marxist Party (CMP), Kerala Congress (Jacob), Socialist Janata (Democratic), Revolutionary Socialist Party (RSP) and All India Forward Bloc as the partners faced the election in 2011. Its manifesto was titled "Development and

Care”. It covered different areas of the agriculture sector in Kerala that need government intervention such as incentives, providing credit, packages, value addition, establishing the different boards, etc. It also promised to improve food crop cultivation and improve agricultural production.

The manifesto promised different incentive schemes for farmers as well. It declared to provide financial assistance for those with cultivation as a primary income and cultivated food crops. If elected, the alliance promised to grant a special allowance and bonus for paddy cultivators. The UDF also pledged to improve the irrigation facilities in the state, grant subsidies at the time of procurement, interest less loans for cultivation, give pesticides through government agencies and ensure that high yield varieties of seeds be provided to farmers for cultivation. Subsidies were also promised to be distributed for the mechanisation of cultivation.

The UDF had an objective to ensure the betterment of the market and a stable income for the farmers. As per the manifesto, they also intended to reduce the fluctuation of price for agricultural products, especially for cash crops. A small-scale market was to be formed under the grama panchayat to purchase the agricultural products directly from farmers and remove the intermediaries. The supportive price of agricultural products would be determined, proportional to the cost of production. Public-Private Partnerships (PPP) would ensure organic farming value addition. The agro products such as copra (dried coconut from which oil is extracted) and coconut water would be made a brand through the value addition. Along with the existing mode of cultivation, the government proposed to form policies such as advanced small-scale rented cultivation and mixed farming. The cultivation of crops alongside the rearing of animals for meat or eggs or milk defined mixed farming. The government would prioritise organic farming to prevent the over usage of pesticides and chemicals in vegetable farming that could, in turn, enhance a healthy food culture in the state. The UDF manifesto proposed to increase collective farming in Kerala to overcome the issue of low income among small-scale farmers.

For a better decentralisation approach for the development of agriculture, especially in rural areas, Farmers Sabha was proposed to be formed at the village level to take up, discuss and initiate solutions to the issues related to agriculture at the village level like Grama Sabha. The UDF manifesto proposed forming small-scale markets in grama panchayath levels, promoting farmers’ associations at the local level, and converting barren land into cultivable land. A

pepper board and horticulture board were to be established in Kerala, with the help of the Union government, as per the manifesto. It also identified that the farmers needed assistance to purchase seeds, fertilisers, and machines; for this purpose, agro service centres would be set up to facilitate cultivation and give knowledge about scientific cultivation.

As per the manifesto, the prospective UDF government would constitute special packages for the Wayanad, Idukki and Kuttanad regions. Based on the green tribunal act, land titles would be given to landless people in the state. Punja paddy fields would be protected and farmers will be encouraged to undertake Punja paddy cultivation. Various closed tea plantations were proposed to be reopened and thereby enhance tea leaf cultivation. Pension would be increased for agriculture labourers. Up to One lakh rupee financial support would be provided to those who get into an accident while engaging in agricultural activities. These were the major promises put forward in the 2011 election manifesto of the UDF.

4.2.2 The LDF Manifesto, 2016: Call for a Secular, Corruption-Free and Developed New Kerala

Vaikom Viswan, convenor of the Left Democratic Front and senior political leader of the Communist Party of India (Marxist) (CPI(M)), released the election manifesto of the LDF along with other political party leaders of the front such as the Communist Party of India (CPI), Janata Dal etc., prior to the 2016 Legislative Assembly election. It was titled “*We should have a new Kerala, Secular, Corruption-free, Developed Kerala*”. It contained 600 items and thirty-five-point programs. Prior to the 2016 election, Pinarayi Vijayan, Secretary of the CPI(M) and the potential candidate for the position of the chief minister, had asserted that agriculture was in a deep crisis, that farmers were in despair, and some of them were even willing to commit suicide, and thus gave a call to initiate immediate remedy to overcome this crisis (Vijayan, 2016).

The focus of the manifesto can be broadly divided into protecting and improving the efficiency of the agriculture sector for food security and self-sufficiency of the state, concern about the areas of production, efforts to make agriculture a profitable activity, the mode of production, intervention in the market and providing incentives, on how the value-added product can be made from agricultural products, how to encourage the people to participate in the agriculture, research on agriculture etc.

A thirty-five-point program was given clear priority in the LDF manifesto. Three significant programs that were put forth were related to agriculture and its allied activities. The LDF promised to set up an industrial network for manufacturing three value-added products of agricultural resources such as coconut, rubber, spices, etc. Another project was an agricultural-income-assurance project, which guaranteed minimum income to the peasants. The proposed plan was to implement a joint scheme of the Union and state Governments, with an aim to expand welfare schemes. Systems such as Labour Bank would be created in all Panchayats. The training and security of agricultural labour in modern agricultural technology were promised. Paddy fields would be given royalty and a large amount from the budget would be allotted for agriculture. Another major program was regarding food security. The LDF manifesto aimed to attain food security, especially in three areas, vegetables, eggs and milk, and to extend three lakh hectares of paddy cultivation through the 'Arisree project', which also proposed to maintain quality and prevention of adulteration of food materials.

As mentioned in the previous chapter, the farmers were in trouble with the state's withdrawal from agriculture after the implementation of the Agreement on Agriculture (AoA). Immediate attention was essential from the state in many ways. Farmers expected direct financial support from the Union and state government such as subsidies, tax-reduction, loan waivers, financial incentives etc. In the examination of the LDF election manifesto of 2016, it can be observed that they swore to enable measures to increase public investment of the state from what was only 2-3 per cent to 10 percent of the total income of the state. The interest-free loan was to be assured to the farmers and subsidies for rubber cultivators. There were promises to ensure compensation to the farmers who lost their farming due to wildlife animal attacks. Sales tax for cutting old rubber trees was promised to be exempted. Financial assistance would be given to welfare-related animal husbandry based on these schemes. It also proposed to direct the banks to treat husbandry loans as agriculture loans and increase pensions of the farmers and agricultural labourers.

The earlier chapters talked about the uncertainty in the market and the lack of income. Getting a better income would be a relaxation for the farmers in the face of a crisis. The state governments have a decisive role in improving the income of farmers and labourers. The left manifesto discussed this aspect as well. It guaranteed that the state would warrant the labour income. In organic farming, the price would be paid through producer companies of cultivators and horticultural departments. It also stated that 'profitable prices' would be

ensured for all agricultural products. The collection price would be enhanced in time with the production expense. Money would be made available within a week by connecting them with cooperative societies. To generate more income, apiculture and mushroom cultivation will be promoted. The income of rubber cultivators and animal husbandry farmers were to be distributed. The manifesto proposed the idea of legal protection for rubber cultivators to get the final price of the value-added product made from rubber. They also agreed to pressurise the Union government to intervene in the importation of rubber so that remunerative prices are assured to the rubber growers.

The left front claimed that they were committed to achieving food security and self-sufficiency in the state. The LDF proposed to raise production by 10 lakh tonnes of rice and to empower the panchayats to take over paddy fields that had been kept idle by the real estate dealers and cultivate them through the cultivators-group. It also proposed group farming and a multi-level participation system to be instituted in agriculture production mode. The left front also promised to establish a rice bio park and looked into organic farming. Its aim was to cultivate 5000 hectares of organic farming before 2021. They mainly focused on the area of cultivation, income and storage. They promised to implement these policies through people planning and campaigning. The upcoming LDF government was to ensure the income from cultivation, distribution of floor price through the producer's company or horticulture department, and construction of storage space for organic farm products.

4.3 Share of Agricultural Expenditure in Total Expenditure in Kerala

The share of expenditure on agriculture and its allied activities by the two governments would be a parameter for analysing and understanding the governments' performance in the agriculture sector. The table given below would provide the share of agricultural expenditure in total expenditure, the share of revenue expenditure in total agricultural expenditure and the share of capital expenditure in total agricultural expenditure.

Table 4.1: Kerala state budget-figures on agricultural expenditure and total expenditure-2011-12 to 2019-20 (in Rs. Cr)

Year	Agricultural & Allied activities Expenditure			Total Revenue Expenditure	Total Capital Expenditure	Total Budget Expenditure	Share of Agricultural Expenditure in Total Expenditure (in %)	Share of Revenue Expenditure in Total Agricultural Expenditure (in %)	Share of Capital Expenditure in Total Agricultural Expenditure (in %)
	Revenue Expenditure	Capital Expenditure	Total Agricultural Expenditure						
2011-12	3099	330	3429	46045	3853	49898	6.87	90.38	9.62
2012-13	3787	218	4005	53489	4603	58092	6.89	94.56	5.44
2013-14	3893	246	4139	60486	4294	64780	6.39	94.06	5.94
2014-15	4322	398	4720	71746	4255	76001	6.21	91.56	8.44
2015-16	4799	533	5332	69039	7500	76539	6.97	90.01	9.99
2016-17	6088	652	6740	91096	10126	101222	6.66	90.33	9.67
2017-18	5529	702	6231	99948	10290	110238	5.65	88.74	11.26
2018-19	6193	594	6787	110316	9753	120069	5.65	91.25	8.75
2019-20	4791	381	5172	104720	9665	114385	4.52	92.63	7.37

Source: Finance Department, Government of Kerala (various years)

The period of UDF is highlighted in orange and LDF in gray. Analysing the share of agricultural expenditure to the total expenditure in different years, it can be inferred that the UDF always kept the share of agricultural expenditure more than six per cent of the total expenditure. Except for the financial years, 2013-14 and 2014-15 the share was above 6.8% of the state's total expenditure. The average share of expenditure in the five years was 6.64% only. During the time of LDF, the share of agricultural expenditure was comparatively less. Except for the financial year 2016-17, the share of expenditure on agriculture was less than six per cent. Due to the Covid-19 pandemic, only 4.52 per cent was the share of agricultural expenditure in the 2019-20 financial year. The average expenditure on agriculture by the left government was 5.59% only during the entire period.

The average agricultural expenditure of the total revenue expenditure by the UDF government during 2011-16 was 6.61 per cent and the share of capital expenditure on agriculture was 7.04%. During the whole period of LDF, the share of revenue expenditure on agriculture of the total revenue expenditure was 5.5 per cent only, while the share of capital expenditure on agriculture in the total capital expenditure was 5.9 per cent. The given data clearly indicate the fact that in terms of share of spending on agriculture and its allied activities of the total expenditure, revenue expenditure and capital expenditure, the UDF government had performed better than the LDF.

4.4 The UDF Government -Major Initiatives in the Agricultural Sector (2011-2016)

Under the leadership of Oommen Chandy, the Congress-led United Democratic Front government won 72 seats (just one more than the simple majority) out of the total 140 assembly seats in the 2011 Assembly election. The difference between the UDF and the LDF was only 4 seats, paving way for the formation of the UDF government that emerged victorious by a narrow majority. As per the arrangement of the UDF alliance, K.P. Mohanan, who belonged to Loktantrik Janata Dal (LJD), became the minister of the Agriculture and Animal Husbandry Department. The government initiated an approach toward agriculture to explore the regional potential in a broader framework. Based on these approaches, the entire state was divided into five Agro-Ecological Zones (AEZ) (1) coastal plains 2) midland plains, 3) foothills, 4) high hills, and 5) Palakkad main and twenty-three Agro-Ecological Units (AEU). The AEU is defined as “a homogeneous geographical area which has the production environment in terms of agro-climate, resource endowment and the socio-economic

development of the condition is homogenous, and the majority of the farmers have similar production constraints and research needs”. The government hoped that the production and productivity, and other technical support could be increased in the state through these AEU/AEZ approaches. The government desired to use these approaches and develop a detailed plan and strategy that would help the government understand the suitable crop for particular areas, on how the climate hazards would affect the homogenous areas, the production potential of those areas, and help make a plan to reduce the production potential gaps, etc. In the mode of production in agriculture, the government was concerned about the lack of productivity in agriculture, mainly due to the minimal size of average landholding and the incapacity of the farming sector to overcome climate change (Government of Kerala, 2012). The UDF government tried to introduce ‘high-tech farming’ in cultivation. The main objectives of high-tech farming were to improve productivity and quality simultaneously. To achieve high-tech farming in Kerala, the government initiated micro-irrigation cultivation, high breed seeds, farming with less depending on soil, greenhouse, etc (Government of Kerala, 2012).

The government was focused on attaining self-sufficiency in vegetable production. To avoid the use of pesticide infected vegetables and for better health, the government promoted organic vegetable farming. In 2010, the organic farm policy came into existence. The government tried to get involved in vegetable cultivation through the agriculture department, Vegetable and Fruit Promotion Council Kerala (VFPCCK) and Horti Crops. In the 2012 budget speech, the finance minister proposed greenhouse schemes to be introduced in order to improve the quality and encourage value-added products from vegetables. In 2012-13, they started polyhouse farm policy and high-tech farming. In total, 1200 polyhouses were formed during the whole period (Government of Kerala, 2017). The government also tried to intervene to make an organic brand in Kerala. It attempted to choose any of the taluks in Kasaragod, Wayanad and Idukki districts to convert into organic taluks. There were attempts in cultivating organic products like *Gandhakashala* (a type of rice) and to develop it into a brand as part of which safe-to-eat and pesticide-free certifications were issued to organic products by the Kerala Agricultural University (KAU) (Government of Kerala, 2017). These were some of the major initiatives taken by the UDF government to achieve self-sufficiency in vegetable production, especially organic vegetables. The government was successful in developing vegetable cultivation. The budgetary allocation to develop vegetable cultivation was high compared to previous years; between 2012-13 and 2015-16, about 250 crore rupees

were allotted for this purpose. Moreover, ninety-three per cent (233.97 crores) was the expenditure incurred. Overall, due to the policy and better fund allotment, there were reflections in the production. Nearly 64 per cent increase in production was observed from 8.25 lakh tonnes in 2011-12 to 13.55 lakhs in 2014-15 (Government of Kerala, 2017).

Some institutions like Krishi Bhavans work at the local level to aid the farmers for better farming. The UDF government was concerned about the betterment of these institutions. For this purpose, the government started agro-service centres in selected blocks in the state. The service of these centres integrated different services such as aid to increase the mechanisation of the farming, support for availing credit, soil testing support, along with other technical support, and weather advisory service. A total of 34 crore rupees was allotted to establish and function agro service centres (Government of Kerala, 2017).

In Kerala, the insufficient availability and high cost of labour have a negative implication on cultivation (Government of Kerala, 2016). The agricultural labourer in Kerala is widely called "*Karshaka Thozhilalikal or Kooli Panikkar*". There was a lack of social acceptance and employment security for these workers, and the youth of Kerala have shown less interest in agricultural labour. The government in an attempt to take up these matters, formed the '*Karshika karma Sena*,' a group of agricultural labourers under the *Krishi Bhavans* (Government of Kerala, 2015). As a consequence of the Green Revolution, mechanisation in agriculture and cultivation increased like never before, and it helped increase production and reduce the effort of farmers and labourers. To be a machine operator for the cultivation, knowledge about the machine is necessary. So, through the *Karshika Karma Sena*, farmers and labourers were enrolled and given training for various agricultural skills and mechanisation. In a conversation with the agricultural officers in Wayanad, it could be understood that with the help of KAU, the local self-government and cooperative societies, the workers were trained for driving tractors, using tree climbing machines, small level repairing of machines etc. It would help increase the dignity and nobility of the agricultural workers, in taking away the stigma on their social status and to encourage more people to engage in cultivation. It would also enhance scientific cultivation, better productivity, reduce the effort and enhance the health of the agricultural workers. In another way, it reduces the cost of cultivation and ensures better income to the farmers.

In 2005, the central government of India launched a scheme called Agricultural Technology Management Agency (ATMA). It was envisaged to convert the extension system farmer-

driven and farmer accountable through new institutional arrangements for technology dissemination at the district level to operationalise the extension reforms (Government of India, 2005). Based on these, the UDF government initiated a scheme called ATMA Plus in 2013-14 (Government of Kerala, 2017). The basic idea of this scheme was to provide technical assistance to the farmers. The farmers, bureaucrats and scientists were to play a vital role in this scheme. It demanded continuous interaction between the farmers, bureaucrats, and scientists. The bureaucrats would continuously visit farming areas and noted down details about farming, diseases and others. The reports of different places within the block would be presented before the scientists and other bureaucrats at the same time. Based on the reports, the scientists would provide recommendations for the betterment of farming, methods to prevent crop diseases, etc. Finally, the bureaucrats would communicate these recommendations to the farmers. The recommendations of the implementation report by the previous committee and its result would also be discussed in that meeting. The district-level analysis was also conducted. It helped enhance scientific cultivation at local levels, give training for scientific cultivation, provide scientific knowledge about farming to bureaucrats, and help them communicate better with farmers through KAU. It could also help prevent the large-scale spread of crop diseases.

Another initiative taken by the UDF government was electronic fund transfer that came into effect from 2012-13. The scheme contained five objectives:

- i. creation of farmers' database who were registered at Krishi Bhavan level;
- ii. to transfer the fund to each beneficiary through electronic transfer (e-payment);
- iii. to have more transparency, speed and efficiency in the implementation of schemes and disbursement of assistance;
- iv. to save the time of field functionaries and to maximise their technical efficiency at the field level; and
- v. to extend financial assistance to the farmers without any delay.

The registration of farmers for electronic fund transfer would be completed through the functioning of the National Informatics Centre (NIC) portal (Government of Kerala, 2012). After its implementation, more than eighteen lakh people registered until 2014 and 912.33 crore subsidy rupees was transferred to the beneficiary account from 2012-13 to 2014-15. It enhanced the speed of the money transfer process and reduced bureaucratic corruption (Government of Kerala, 2017).

The Kerala State Planning Board conducted a study about the nutrient of soil in the paddy fields in Palakkad and its relation to production in 2004. The study showed that the lack of micronutrient content in the soil would adversely affect the production from the paddy field. The unnecessary use of pesticides and chemicals would increase the cost of cultivation and reduce soil fertility. To avoid both, the State Planning Board, along with the National Bureau of Soil Survey and Land-Use Planning (NBSSLP) and the Indian Council of Agricultural Research (ICAR), implemented two projects; soil health card and Nutrient Management Plan (NMP) (Government of Kerala, 2021). The government issued soil health cards to farmers, which contained the health condition of the soil of respective cultivation areas and recommendations for farming.

The UDF government also paid attention to the development of coconut cultivation. Various coconut development projects such as Kerasamrudhi that provided components to supply dwarf seeding, Keragram project that focussed on the production of Neera and procurement of coconut through *Krishibhavan*, were restructured. Nearly 70214 Metric Tonnes of copra were produced through Kerala Fed (Government of Kerala, 2017). The value addition of coconut is necessary for the development of coconut farming. The UDF government also strengthened the Small Farmers Agribusiness Consortium (SFAC) and supported the production of value-added products from coconut.

The UDF government aimed to improve agricultural production and productivity by introducing better approaches and scientific modes of production. It anticipated that a common strategy for agriculture at the state level would not be enough to develop the sector in the state as it failed to address factors such as indigenous native agricultural production in different parts of the state, the impact of specific climate conditions of different regions in the state on agricultural production etc. The government adopted the AEU/AEZ approaches that helped make detailed plans based on specified zones and explore the maximum potential of particular zones. The major aim of the government was to facilitate high-tech cultivation in Kerala that would be accessible to farmers. It was a necessary step for the state because of small-scale landholding cultivation. They tried to establish as well as empower different state government institutions and schemes to facilitate scientific cultivation such as ATMA plus, an institution that would work as technical assistance to farmers through collaborating with bureaucrats and scientists, Nutrient Management Plan (NMP) and soil cards based on the soil testing and strengthening the *Krishi Bhavan* at the local level. Accessibility to institutions

was a major concern for the farmers, which the UDF aimed to improve. It established institutions that helped farmers scientifically enhance production and prioritised institutional accessibility for the farmers right from the local level and to acquire better means of production. The UDF performed well in this matter.

Self-sufficiency in vegetable production was another major sphere where the UDF tried to bring changes. Pesticide-treated vegetables from other states and the health problems they cause have largely inspired the government in encouraging farmers to switch to organic vegetable cultivation in the state. The UDF government-initiated Polyhouse farming and terrace farming and also started the certification by the KAU, value-addition of organic vegetables and formed organic taluk in the state. As mentioned earlier, these policies helped increase the production of vegetables in the state and achieve self-sufficiency.

4.4.1 Drawbacks in the Agricultural Policies of the UDF

Even though the contributions of the UDF government in the agriculture sector were numerous, it, however, was not in dearth of drawbacks. There were major spheres it had failed to perform in its 5-year tenure. This section will try to discuss the drawbacks of the UDF government of the period 2011-16.

To begin with, the government's focus on developing paddy cultivation in the state was inadequate. During their period, only a few Union government-sponsored schemes, such as Macro Management-Rice Development (90%-Union) and National Food Security Project, along with a state government scheme, Sustainable Development of Rice (Initiated by the 2006-11 LDF government), were functional for the development of rice cultivation (Government of Kerala, 2016). The high cost of cultivation, increased charges on machines, low returns from the market etc. were some of the primary factors that caused difficulties for paddy cultivators (Thomas, 2011). The government failed to come up with policies or schemes that could help overcome these concerns sufficiently. The performance of the market intervention, machine assistance, and other forms of assistance was also insufficient from the part of the state government. Paddy cultivation is not just about farming but also about protecting the environment; the paddy fields help conserve groundwater and act as a drainage mechanism to eliminate flood water. The protection of paddy fields was therefore essential, which the UDF government could not ensure. In fact, the cultivation area of paddy fields declined during the UDF rule (Government of Kerala, 2016).

The value addition to agricultural products means transferring or changing the state of farm products into a valuable state. As mentioned earlier, the remunerative price of agriculture is not sufficient for the survival of farmers. This issue can be solved, to an extent, by means of value addition to different agricultural products and markets both inside and outside the country. A push and assistance from the state government are inevitable to ensure the value addition from agriculture because it demands research, market strategy, labour, etc., for the value-added production. The UDF did not take enough measures and policies for value-addition and marketing of agricultural products. There was criticism that although LDF government during 2006-11 took policies to strengthen the marketing, the UDF did not continue those (Government of Kerala, 2016). It resorted to only three schemes: Integrated Agriculture Complex, Agri Mills, and Strengthening Market Development Scheme (initiated by the 2006-11 state government). It was not sufficient to marketise the value-added production of agricultural products in the state. In case the value-addition does not occur at the farmers' level, the international and domestic agro-industrial cooperative company will purchase agriculture at a low price, and farmers would receive the low-level remuneration price (George and Krishnaprasad, 2006). In this manner, the UDF government failed to enhance the state's value-added products and marketing of agricultural products.

There are farmers who cultivate around forest areas. Crop damage by wild animals in agricultural fields is a major concern for such farmers. There are multiple studies about conflicts between wildlife animals and farmers. Animals such as wild pigs, elephants, deer, peacocks, porcupines etc., are the animals that threaten farmers by inflicting crop damage. Due to this, there has been an increase in conflict between farmers and wild animals in such areas (Jayson, 2013). The majority of the farmers who cultivate near the forest are marginal farmers (Veeramani *et al.*, 2004). The crop damage by the wild animal, therefore, could shatter their farming and push them into crisis and result in cattle lifting, human casualties and household damage (Conover, 2002). The prevailing method is insufficient, and new scientific approaches are necessary to tackle the crisis. There was no intervention from the UDF government to prevent crop damages caused by wild animals, a major problem that adversely affected the farmers near the western ghats and forests.

Kerala's topographic and climatic conditions are such that it has the potential for an extensive development of flower cultivation (Sangeetha, 2005). Flower cultivation would also improve tourism; as part of which other developments would also follow into the state. The agro-

ecological zones in Kerala are capable of producing tropical flower crops that have high export potential. Kerala had small-scale flower cultivation, which focused more on the local market. Nonetheless, the state did not explore the potential of flower cultivation at a larger level (Sangeetha, 2005). The state government support is essential for the betterment of floriculture in the state through assistance in the trade, building nurseries, industries for extraction of oil from flowers etc. Similarly, Kerala also possesses the potential to develop fruit cultivation which too needed attention from the state government. Jack-fruit, Banana, Papaya, Pineapple etc., are the significant fruits cultivated in Kerala that have high export potential. The UDF intervention in enhancing fruit cultivation also was poor. Altogether, the government was a failure in exploring the possibilities for the development of flower and fruit cultivation in the state.

4.5 Agricultural Policies of the LDF Government (2016-21)

The 2016 election victory of the left government was by a considerable margin. The LDF secured 91 seats, while the UDF won 47 seats, and the NDA acquired their first legislative assembly seat in Kerala. The LDF government under the leadership of Pinarayi Vijayan assigned the portfolio of agriculture to V.S Sunil Kumar, a Communist Party of India (CPI) member. During the period of this government, the state underwent various difficulties such as two major floods, Ockhi cyclone, Covid-19 pandemic and other natural disasters. The left government had primarily four missions; General Education Protection Mission, Livelihood Inclusion and Financial Empowerment (LIFE), Ardram and Haritha Kerala Mission which were considered the government's priorities.

The government was conscious of the fact that paddy cultivation was inevitable not only because it is an agricultural product but also because it has an environmental impact (Thomas, 2021). The LDF manifesto had itself indicated its priority towards the protection of paddy cultivation as it ensured food security in the state. The government found that only fifteen per cent of the total consumption of food is cultivated in Kerala (Government of Kerala, 2010), and for the rest, the state is dependent on other states like Andhra Pradesh and Tamil Nadu. Enhancing the income from paddy cultivation would help increase as well as protect the cultivation area of paddy fields. As a move towards ensuring the same, the LDF government granted direct cash assistance of rupees fifteen thousand per hectare to every paddy farmer in Kerala and at the local body level, an additional 15000 to 17000 rupees per hectare from their plan's fund as additional assistance to farmers. This government provided

the highest minimum supportive price to paddy cultivation in India; eight hundred rupees per quintal paddy were procured from the farmers at the rate of two thousand and seven hundred rupees. This was in addition to the assistance from the Union government's supportive price, which is 1868 rupees per quintal (Government of Kerala, 2021). Another challenge in front of the government was to increase the cultivation area of paddy fields; the government envisaged to increase the paddy cultivation up to three lakh hectares, which it could not attain. However, it could arrest the fall in the area of paddy fields (Government of Kerala, 2016). The state government provided royalties to farmers in order to protect paddy fields, which was the first in India (Government of Kerala, 2021). It also gave financial assistance of twenty thousand rupees per hectare to farmers.

Another major sphere that the LDF government directed its focus was on the development of vegetable cultivation. As a measure to protect vegetable cultivation and its price instability caused by market fluctuations, the government of Kerala introduced the base fare system. It came into existence on November 1, 2020, and was to ensure stable income for existing farmers and attract new people to vegetable production. The agricultural price board would decide the base price in such a manner that it would constitute the production cost and in addition, twenty per cent of the same. The base price can be availed by the farmers for sixteen vegetable items. To guarantee the base price, the district-level committees were constituted, and the committee will ensure the base price for the vegetable.

In wake of the Covid-19 pandemic, the state anticipated that the continuation of the pandemic situation would cause difficulty in the food supply. As a consumption state, the chance of the state being vulnerable to famine was high. To overcome this condition, the state government introduced a scheme called '*Subhiksha Keralam*', and the government allocated 3680 crores for this scheme. The government advised the people of the state to cultivate agriculture in as many areas as possible and the government would assist and help reach self-sufficiency in food production in food grains, millets, vegetables, fruits, tuber and pulses. The scheme also contained other aims such as converting the barren land into cultivable land, creating employment for the youth and people who came back from foreign countries due to job loss as a consequence of the pandemic and encouraging them to become entrepreneurs in agricultural value-added products etc. Farmers, Kudumbasree, neighbourhood organisations, and self-help groups could register at the portal to avail financial assistance from the government under the *Subhiksha Keralam* project. The Local-Self-government bodies also

played a vital role in providing financial and other assistance to farmers. Proper guiding, supervision, and other suggestions were provided by the agriculture officers in their respective areas. Haritha Karma Sena and National Rural Employment Guarantee Act (MGNREGA) schemes have been in use for the purpose of acquiring labourers for this scheme.

The welfare of the labourers engaged in agriculture is as important as the sector. The LDF government identified this concern, as part of which a welfare fund board for the welfare of the farmers came to exist in 2020, as a result of the Farmers Welfare Fund Act 2018. The Kerala government claimed that the establishment of a board for the welfare of the farmers was for the first time in India. As per the bill, those farmers who would receive the welfare are defined as “ones over 60 years of age and have been primarily engaged in agriculture for not less than three years, and those who hold land, as an owner or licensee or mortgagor neither less than five cents and nor beyond 15 acres and has an annual income less than Rs 5 lakh.” Farmers above the age of 18 engaged in growing of crops and intercrops, horticulture, medicinal plants, fruit trees, vegetables, grass, fodder grass trees or any kind of cultivation in soil, horticulture, medicinal plants, conducting nursery, and all allied activities such as dairy and poultry and breeding fish, mussel, oyster, bees, ornamental fish, silkworm, poultry and so on as mentioned in the Act can become members of the Fund (Kerala Farmers Act, 2019). The farmers were to contribute a minimum of hundred rupees, and the government’s contribution to be equal to or up to 250 for this fund. It also would provide family pension and death benefits, financial assistance for members suffering from permanent physical and mental disability, treatment, maternity needs, the marriage of women members or daughters of members, and children’s education. It will also provide compensation to members or their families for accidents and death or disability caused by natural calamities, poisoning of various kinds and attacks of wild animals, as per a scheme that would be prepared under the terms of the Act. More importantly, the farmers’ pension was enhanced from 500 to 1600 rupees per month during the period of the LDF government (Government of Kerala, 2021).

To popularise fruit cultivation in Kerala, the government developed the Fruit Development Program in 2020 as part of which, 21.90 crores were allotted for its implementation. The principal objectives of the scheme were the expansion of the area of cultivation of fruits, to assist in the production and supply of planting material to farmers, support the farmers at the time of harvesting, enhance the value-added to the fruit, provide cold storage to preserve

harvest fruits etc. The scheme aimed to promote domestic fruits such as banana, pineapple, jack fruit etc., along with exotic fruits such as litchi, rambutan, avocado, mangosteen etc. The project has been implemented by the Department of Agriculture Development and Farmers Welfare with the support of Kerala Agricultural University, VFPCCK and HortiCorp and spread over ten years. The department of agriculture would coordinate with local-self bodies, VFPCCK, Farmer Producer Organisations (FPOs) and the better functioning Primary Agricultural Credit Society (PACS) to execute this scheme. Markets for selling the produce shall be identified in advance to assure reasonable prices to farmers. Value addition and establishment of the supply chain would also be promoted. The VFPCCK would procure the fruit from farmers directly.

The government established Biofertilizer and Organic manure Quality Control Laboratory (BOQCL) to promote organic fertiliser and control the quality inputs. This laboratory was established as part of the state's organic agricultural policy (Government of Kerala, 2021). The laboratory would go a long way in ensuring food safety in the State. The chief minister claims that the lab could ensure the genuineness of the organic manure being sold in the market and also reduce the diseases caused by the lifestyle (Vijayan, 2020).

For better cultivation of flowers and vegetables, the Union government and state government collaborated with the Dutch government to establish a *Centre for Excellence* in the Wayanad district. The government set aims to empower farmers and investors to improve the production of vegetables and flowers through high tech cultivation, and the *Centre for Excellence* will act as a felicitation centre for the same (Kumar, 2020). The government of India and the Dutch government, signed the Indo-Dutch Agriculture Workers Group Action Plan in 2012, which plays the base for establishing the centre. The Chief Minister Pinarayi Vijayan visited the Netherlands in 2019, paving the way to kick start the scheme. The Minister of Agriculture in Kerala and the Ambassador of the Netherland signed a Letter of Intent to set up a *Centre for Excellence* in Kerala. Indian government gave seven crore rupees under Mission for Integrated Development of Horticulture (MIDH) and four crores of rupees were granted by the state government under the Rebuild Kerala Project.

To revive the coconut development schemes in Kerala, the state government established the Coconut Development Council in 2018. The council has a 10-year plan for reviving coconut farming in Kerala. It aims to increase the cultivation area to 1.44-hectare land and replant coconuts in 3 lakh hectare of land (Government of Kerala, 2018). It has aims such as

replanting and connecting the production of coconut to the agro-industry. Under the ‘Keragram’ project, the government introduced clusters through integrated management, which was implemented in 206 Keragrams of 250ha of land each in selected grama panchayats during 2016-17 to 2019-20. The goals of the project included the improvement in production and productivity of coconuts. Finally, as part of the project, integrated crop management practices were also implemented in 40,457 ha. (Government of Kerala, 2021).

According to the WTO Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) Geographical Indication (GI) was defined as “Indications which identify a good as originating in the territory of a member, or a region or a locality in that territory, where a given quality, reputation or characteristic due to that origin”. Kerala had potential products that could be tagged under GI. Nilambur teak, Marayoor Jaggery, Chengalikodan Nendran banana and Tirur betel leaf got GI tag, facilitated by the Intellectual Property Right Cell (IPR Cell) of Kerala Agricultural University (KAU).

Kerala Infrastructure Investment Fund Board (KIIFB) approved the establishment of the honey and banana-based agro park at Model Horticulture Farm, Thrissur. A collaboration of the Kerala State Land-Use Board and the agricultural department was established to develop a web-based land resource information system that provides watershed information systems for the entire state. The government also initiated direct selling opportunities for farmers through 30 urban markets and 440 weekly markets that were established in grama panchayath for fruits, vegetables and millets (Government of Kerala, 2021).

The LDF government was focused more on paddy farming, vegetable cultivation, and coconut farming. The paddy cultivation in Kerala is stagnant in production, productivity and area of cultivation. It could adversely affect food security, the environment, employment in the agriculture sector, etc., in the state. In 2010, the rice shortage increased up to 83.45% of the demand in the state (Karunakaran, 2014). Different factors caused the decline: the increase in cash crop cultivation, decline in income, cost of cultivation, etc. The state government was focused on increasing the income of paddy farmers and arresting the decline of the area of cultivation. In the two stages, such as procurement and ensuring income, the LDF intervention was better. Kerala has the highest MSP for paddy; in 2015-16, paddy procurement was 5.61 lakh metric tonnes at the rate of 21.5 per kg, but it increased to 7.01 lakh tonnes at the rate of 26.95 rupees in 2019-20 (Government of Kerala, 2021). In the case of vegetable cultivation, the government could ensure an increase in productivity and base

price for the vegetables. The welfare of labourers was handled better by the LDF. It was also successful in popularising fruit, flower and honey cultivation.

4.5.1 Drawbacks in the Agricultural Policies of the LDF

Keeping aside the arenas where the LDF could perform well, in order to form a better understanding of the government's agricultural interventions, it is necessary to look into its drawbacks as well. The LDF government could not implement a better marketing system during their period. Except for the paddy, procurement facilities of the state government for other crops were not properly functioning. This situation has been caused primarily due to certain key constraints in the structural aspect of Kerala's agricultural sector. Due to these factors, the procurement of products from the farm level returns affected the remuneration to farmers. The establishment of the agro-industry centres for the value-addition could not be productively taken. Due to the lack of an existing market network, farmers sell their products into the local market, which was unrestricted by the government. Storage facility is another aspect that is essential for dealing with the post-harvest period. It will help sell the product at a time of better price in the market, helps in the export, and be helpful to make value-addition from the agro products. The failure of a robust marketing system led to inadequate storage and warehouse facilities in the state. In effect, the failure of the LDF government to establish a better marketing system caused the decline of income and profit of the farmers in Kerala.

Although the government anticipated the necessity of value addition to the agricultural products, it could not establish medium and larger scale value addition industries for commercialising value-added products. These large or medium scale value-added industries under supervision of the state government had the ability to generate high scale profit that could in turn enhance the income of farmers. Products such as vegetables, flowers, coconut, rubber and fruits could potentially establish value-added industries in Kerala. However, it was not materialised during the period of the LDF government.

The thirteenth five-year plan focused more on productivity, profitability and sustainability. Scientific intervention in cultivation and extension services were necessary to achieve these five-year plan objectives. It is known that productivity can improve the income of farmers. The reliance on the old production mode, however, would not improve productivity; scientific lines of intervention in soil conservation, irrigation, chemicals usage, high yield varieties of seeds etc., are necessary. The research on agriculture is an inalienable part of the betterment of productivity.

Extensive research has been taking place in Kerala regarding agriculture, but the gap between lab and land is still prevailing, and the state has not been able to act as a bridge between the two. The insufficiency of labs in different places and the lack of efficiency of *Krishi Bhavan* also affect the implementation of new scientific findings and methods in the agriculture cultivation fields (Government of Kerala, 2021). The left government has not been able to implement the new scientific cultivation in the agriculture fields mainly due to the insufficient institutional arrangements and inefficiency of the existing system.

Apart from these drawbacks, the LDF also failed to develop a comprehensive plan for the storage and utilisation of water used for irrigation in agriculture. Irrigation is of utmost importance for any kind of cultivation. As per the report (2011) of the State Planning Board, Kerala, only 16 per cent of the gross cropped area in Kerala received proper irrigation. According to the NITI Ayog report (2015), prudent use of water in agriculture needs to be the first priority in a state. The state of Kerala has 44 rivers, 34 backwaters and other water resources with the potential to tap these sources for the purpose of storage for future use, especially in agriculture. However, this advantage has not been used or put to use properly. For the development of storage facilities, river basin focussed plans could be formulated, which has not happened during the tenure of LDF government. The present method for the utilisation of water for irrigation is insufficient. It causes damages such as soil erosion and wastage of water. Micro-irrigation methods such as drip irrigation ensure that the water reaches directly to roots and guarantees minimal wastage of water. It additionally helps prevent soil erosion. Even when such an alternative could be developed, there were not enough efforts from the part of the LDF government to overcome the difficulties in irrigation for cultivation.

4.6 Social Assistance for Agricultural Workers

Governments has the responsibility to help the disadvantaged sections of the people coming under their jurisdiction. Social assistance is one means that the government uses to support underprivileged people. It is a program that provides monetary assistance to older people, disabled persons, agricultural workers, widows and bereaved families after the death of the primary breadwinner, those belonging to below poverty line households etc. The growth rate of the population of older people (equal to and higher than 60) is higher in Kerala than the all-India level (Government of Kerala, 2021). This has been due to multiple factors such as reduction in mortality and fertility, development of female literacy, and higher age at

marriage (Bhat and Rajan 1990; Sunitha, 2014), as well as due to more increased investment in education and health etc. (Rajan, Shajan and Sunitha, 2020). Among the older people, a good section includes agricultural labourers. Table 4. 2 shows that the percentage of the agricultural workers to the total workers decreases over the years even though they are good in numbers. This indicates that these workers are almost entirely dependent upon agriculture for their income and thus require special attention when they reach old age since they would not have any alternate source to support them. The significance of social assistance from the government for the agricultural workers comes at this point.

The left coalition government of 1980 started the agricultural labour pension scheme in Kerala. Kerala was the first state which initiated an agriculture labour pension scheme in India. In order to be eligible for the pension, a person must be equal to or greater than 60 years of age, be a member of the Agricultural Workers' Welfare Fund, should have worked as an agricultural labourer for around ten or more years under landowners and the family's annual income should not have exceeded one lakh, etc. Older agricultural workers cannot work and earn money, but they must be financially independent for many reasons. They should not have to rely on other people for their basic needs such as food, cloth, shelter, medicine, etc. Social assistance from the government is inevitable to protect these basic rights. In scenarios where the older agricultural workers get distant from their family members due to personal issues, the pension would in fact protect them from poverty, keep them somehow independent and uphold their dignity. Although the pension amount is inadequate to buy the food and other essential items from the open market, these labourers could sustain their lives with the help of the public distributive system.

Table. 4.2: Percentage of agricultural workers in Kerala

Year	%
1981	28.23
1991	25.54
2001	12.40
2011	16.10

Source: Government of Kerala (Various Year), Economic Review, Thiruvananthapuram: Kerala State Planning Board

The question of pension for agricultural labourers has been one of the steaming topics of discussion during elections for both the UDF and LDF fronts. Both fronts promised to increase the pension amount in their manifestos. The agriculture labour pension amount

during the UDF tenure was 600 rupees, while the LDF government increased the pension amount over the years up to 1600 rupees- with double the rate of increase than that of the UDF, and was one that was never witnessed before. Thus, in terms of ensuring social assistance to the agricultural workers, the LDF government has performed much better than the UDF.

4.7 The Role of Panchayats and their Spending on Agriculture by the State Governments

The issues pertaining to agriculture can be better addressed at the local level, for which the strengthening of the local body institutions is necessary. Various panchayat level schemes were successfully implemented in Kerala by the local bodies as assistance to the farmers. Some of the prominent schemes included infrastructural development (farm roads, culverts), subsidized fertilizer and seed distribution, financial support for farmers to buy agricultural machinery, construct bunds, etc. The capacity of these institutions is often inadequate when it comes to reality. Budgetary constraints often limited the ability of panchayat institutions to undertake huge investments such as spending on large machines, tractors etc.- these were materialised through collaborative efforts with the state government. The state government decides the amount for fund allocation to the local bodies. Thus, even with the capability to assist the agriculture sector from the local level, the lack of adequate funds is a limitation. The role of state governments is relevant in this scenario. It is the state government's discretion to decide the expense to be incurred upon allotting funds to the local bodies. The table given below shows the share of expenditure of local government institutions to the total expenditure in the two government periods

Table 4.3: Expenditure on Agriculture by Local Government institutions under the UDF and LDF governments

Political Front	Years	Share of Agricultural Expenditure in Total Expenditure (%)
UDF	2012-13	5.3
	2013-14	5.4
	2014-15	5.1
	2015-16	5.2
LDF	2016-17	8.7
	2017-18	10.9
	2018-19	8.5
	2019-20	7.4

Source: Kerala State Planning Board

The analysis of the table would give an idea of the interventions of the state governments to enhance agriculture through the local government bodies via fiscal decentralisation. When the UDF was in power, the share of agricultural expenditure in total expenditure allotted to local bodies was only between 5.1%-5.4%. This figure has risen since the left came to power in 2016; it rose by three per cent. The share of agricultural expenditure in total expenditure in local bodies was between 7.4% to 10.9%. The increase in expenditure helped enhance the planning and implementation of agriculture policies in the specified local manner. In this manner, the LDF government was much better than the UDF government since the share of agriculture expenditure in the total expenditure of local bodies was higher during their period. Although the government's expense incurred for local bodies to spend on agriculture was insufficient, the LDF spent better than the UDF for the purpose. This is in contrast to what we saw with regard to the allocations to the agricultural sector under the UDF and LDF regimes at the state level.

There might be many possible reasons why the left prioritised developing agriculture through the local bodies. Historically, the left was at the forefront of the campaign for decentralisation in Kerala. The LDF government in Kerala, with E.K Nayanar as the chief minister, began the "People's Campaign for Decentralized Planning" in 1996, devolving greater authority and resources to panchayats and establishing institutions and processes to maximise direct citizen involvement in planning and budgeting (Isaac and Franke, 2000). The government allotted and expanded responsibilities, decision-making authority, and discretionary budgetary control over 35–40 per cent of the state's developmental spending to local bodies (Mohankumar, 2003). The idea behind the implementation of decentralisation of powers evolved in the state over the years through the left and allied organisations and other civil society groups such as the Kerala Sastra Sahitya Parishad (Heller, 2000). The left perceived the devolution of powers of the state, more as a political movement than simply as an institutional design. The organisational structure of the left (cadre-based system) adds to its advantage, particularly at the ground-level working of the local body institutions than the Congress. Added to this is the possibility of electoral patronage in favour of the left parties at the local level.

The Congress party in Kerala was not as keen as the left on the decentralisation policy. This is evident in some of the decisions by the UDF government in 2001, regarding local bodies such as revoking the mass training programme and vocational training, reducing the size of ombudsmen, etc. (Venugopal and Yilmaz, 2009). The fact that the left led the movement to

bring decentralisation in the state probably made Congress hesitant to commit to the cause completely. Additionally, with the advent of local bodies, the traditional power of the MLAs would decline, with no more absolute discretion over governance and planning at the local level. Overall, these factors could have influenced the decisions of the UDF and LDF governments on spending on agriculture through local bodies which are reflected in the differences between both governments on the same.

4.8 Farmers' Organisations and Mobilisation of Farmers and Agricultural Workers in Kerala

The peasant and farmer movements that occurred prior to the formation of the state of Kerala have had a tremendous impact on the legislative decisions, right from when the first government came into power. The legislative efforts that led to the enactment of the Kerala Land Reforms (Amendment) Act of 1969, by the left government that abolished tenancy, were highly influenced by these movements. Since the formation of the state of Kerala, although various farmer and peasant movements took place, it had evolved from being radical to “playing by the rules of the democratic game that were well established, which were acceptable to all key players (state, civil society, etc.)” (Heller, 2000). The legislative policies of the state governments of various fronts thus continued to take into consideration, the demands and suggestions put forth by these movements.

The farmers' unions and other organisations had undertaken various issues of the farmers in Kerala and organised protests between 2011-2021. In 2013, the '*Bhoosamrakshana Samiti* that consisted of the *Kerala Karshaka Sangham* and other left allied organisations such as the *Kerala State Karshaka Thozhilali Union* (KSKTU), *Aadhivasi Kshema Samithi*, and *Pattika Jathi Kshema Samithi*, identified and acquired the surplus land which the UDF government failed to identify and distribute to the landless people. According to the *Kerala Karshaka Sangham*, although the government later called for a meeting and promised to fulfil their demands, it failed to keep up the promise. Following this, the *Bhoosamrakshana Samiti*, including *Kerala Karshaka Sangham*, led a full-fledged protest against the government (Kerala Karshaka Sangham, 2014). Once the LDF came into government, it issued Patta (a land deed issued by the government) to around 1 lakh landless workers, which the *Karshaka Sangham* perceived as a positive impact of the struggles they undertook during the UDF tenure (Kerala Karshaka Sangham, 2019).

Another major issue that the *Karshaka Sangham* took up was the crisis faced by rubber cultivators. They demanded that the Rubber board procure the rubber from the farmers and provide a minimum of 250 rupees as the supporting price, form a stable price fund, strike down VAT and restrict imports etc. Various protests focussing on these demands were carried forward- human chain protest was one of the significant among them. Even though the demands raised by these movements were primarily to be addressed by the Union government, the state government in Kerala led by the LDF attempted to resolve some of these issues, under their purview. The government established Kerala Rubber Limited for the value-added production of rubber, purchased rubber from the farmers for the purpose of road construction and sent a report to the Union government, prepared by a committee headed by the Chief Secretary of the state, suggesting solutions to overcome the crisis faced in rubber cultivation.

The *Kerala Karshaka Sangham* had also spearheaded various other movements against the policies of the Union government during this period. The organisation was of the opinion that the free trade agreement between the Association of South-East Asian Nations (ASEAN) and India (AIFTA) signed in 2003 adversely affected the rubber cultivators in Kerala. According to the *Kerala Karshaka Sangham*, the Regional Comprehensive Economic Partnership (RCEP) agreement signed between the Indian government and ten of the ASEAN countries, China, Japan, Australia, New Zealand and South Korea in 2020, would have an impact similar to or rather more than that of the AIFTA on the dairy farmers. This agreement would pave way for the import of milk with a reduction in taxes that would in fact affect the milk cooperative societies such as Milma in the state. The state witnessed multiple protests against the agreement and demanded that the Union government withhold from signing it.

There has been a decline in the intensity of the farmers' movements in Kerala, compared to those that took place before the formation of the state. This could have been due to various reasons. Over the years, the dependency on the agricultural sector has come down in the state and the migration of a significant chunk of the population to the Gulf countries has created other sources of income for many farmer families. The basic nature of the movements has also evolved over the years. The major issues of contention were related to the national level policies such as that of the globalisation, free trade agreement, unrestricted import of agricultural products and other legislations that came about as part of the liberalisation policy of the Union government.

4.9 Conclusion

A detailed analysis of the agricultural policies by the UDF and LDF governments shows that both governments have undertaken major interventions in the sector. Although there were differences in spheres of action and performance, one way or the other their focus was on the upliftment of the agriculture sector and the farmers dependent upon it. The UDF performed better in ensuring institutional accessibility to farmers and framed a new approach for agricultural production, while the LDF had an upper hand in the development of paddy, vegetable and coconut cultivation as well as in ensuring the welfare of labourers. With respect to the share of agricultural expenditure in the total expenditure, the UDF government had spent more than the LDF. At the same time, there were various spheres where both the governments failed to perform as well. Added to these were the structural limitations that limited the performance of both the governments significantly.

Chapter 5

CONCLUSION

The study of the agrarian distress in Kerala offers us a very distinctive condition to understand and analyse as to how governments at the state level led by parties and fronts that have different ideological orientations respond to the agrarian distress. For several decades, the Left Democratic Front, led by the Communist Party of India (Marxist), and the United Democratic Front, led by the Indian National Congress, have alternated as rulers of the state. Both leading parties of the alliances have different political stands, especially regarding the economic reformation in India. The Indian National Congress is credited with initiating, enacting, and implementing the country's economic reform initiatives. In terms of ideology, the left accuses the Indian state of anti-peasant prejudice and blames the agrarian crisis in part on neoliberal policies. This study mainly examined the similarities and differences in the interventions undertaken by the Oommen Chandy led UDF government (2011-16), and Pinarayi Vijayan led LDF government (2016-2021).

Distress in the sector of agriculture has been worsening over the years in India. The externalisation of this situation is visible in the number of farmer suicides in the country, the decline in farmers' income, etc. Even when the agriculture sector entails a large section of the country's working population, its contribution to the economy has been on a decline. Support measures for those engaged in cultivation are a prerequisite in addressing the situation of crisis, which is the responsibility of both the Union and state governments.

The agriculture sector in Kerala is distinctive in terms of the crops produced (cash crops) and the mode of production it undertakes, which leads to the reliance on higher credit to sustain the cultivation. Due to the nation's trade policies, there has been a decline in export and a rise in the import of agricultural products in the state. In addition, due to the high costs incurred upon production, the farmers in the state often fall into indebtedness, leading to a loss in income. In addressing the crisis of the sector in the state, an approach specific to the localised context of Kerala could help overcome at least some of the concerns within the sector. Only by studying the policies and measures undertaken by different governments in Kerala can we develop a comprehensive analysis of the distress in agriculture in the state.

The approaches of different state governments towards the distress in the sector of agriculture have been the primary interest of this study. The Oommen Chandy led UDF government

(2011-16), and the Pinarayi Vijayan led LDF government (2016-20) had proposed a set of agendas to prevent and overcome the agrarian crisis in the state, within their respective election manifestoes. While the UDF promised to ensure a stable income for farmers, distribution of land titles to landless people as well as pension for agricultural workers, the LDF promised to achieve self-sufficiency and food security for the state as well as to ensure guaranteed minimum income to farmers.

One of the major points of comparison in terms of the interventions undertaken by both the governments would be to analyse the expenses incurred by the governments for agriculture. The share of expenditure on agricultural and allied activities out of the total expenditure in the budget of the state of Kerala between 2011-2020 was higher during the time of the UDF government. They (UDF) maintained the share of agricultural expenditure at more than six per cent of the total expenditure while it accounted for a lesser percentage during the LDF period. Except for the financial year 2016-17, spending on agriculture accounted for less than 6% of the total spending. Unanticipated occurrences of flood, Nipah, Ochie and Covid-19 during their tenure might have been some of the causes for the lesser share of expenditure on agriculture by the LDF government. Overall, in terms of the share of spending on agriculture and its allied activities of the total expenditure, revenue expenditure and capital expenditure, the UDF government had performed better than the LDF.

Considering the difficult situation prevailing in the agricultural sector, the UDF as well as the LDF governments had come up with initiatives and formulated policies that aimed to mitigate the situation. In its attempt to enhance agricultural production and productivity, the UDF government wanted to promote a scientific mode of production as well as adopted a zone-focussed approach, thereby facilitating access to high-tech cultivation for farmers. The government was also determined to develop the institutional capacity of the state machinery to help achieve these goals- the introduction of schemes such as the Nutrient Management Plan, soil cards, and the strengthening of institutions such as ATMA plus and Krishi Bhavan etc., are some examples of their actions. It also aimed to guarantee the accessibility of these institutions to the farmers, to work in proximity to them and address their issues at the local level.

The LDF government primarily undertook a mission to protect paddy cultivation by providing assistance and royalties to paddy farmers, increasing the price of paddy procurement, etc. and help achieve food security and self-sufficiency in the state. The

introduction of a base fare system for vegetable cultivation, the establishment of the Coconut Development Council to enhance the productivity of coconut farming as well the development of the Fruit Development Program that aimed to popularise fruit farming were some of the other initiatives by the LDF government in its mission to boost the growth of the agriculture sector. By establishing a welfare fund board for the farmers, the government intended to ensure financial assistance to farmers for health expenses, monetary benefits, means of pension etc.

Despite all these initiatives, there were certain limitations that these governments faced while functioning in a globalised world. The entry of private cartels, the decisions on tariff rates and imports, etc., were beyond the state governments' scope and reach. Nonetheless, the initiatives and schemes of these governments were inadequate to tackle the situation and create a conducive environment for the development of agriculture in the state. There were various drawbacks of the UDF and the LDF governments in dealing with the situation of distress in the sector of agriculture. There were serious drawbacks of the Oommen Chandy led UDF government in addressing concerns in the sphere of paddy cultivation, taking up measures to marketise value-added production of agricultural products, as well as in exploring the scope of fruit and flower cultivation. On the other hand, the LDF government failed to develop a better marketing system, strengthen the institutional efficiency, enable facilities for irrigation of fields, adopt new scientific cultivation methods, etc.

It is evident from this study as well as from the available data that the UDF and the LDF governments prioritised the development of the agricultural sector during their tenures. The spheres of focus of these governments were different, though. The UDF was able to bring about changes at the institutional level, strengthen the institutions (Krishi Bhavan, ATMA plus) that functioned in relation to the agriculture sector and introduce high-tech cultivation based on the scientific mode of production. Their interventions were directed toward such endeavours that consequently made the institutions accessible to the farmers and helped adopt better scientific methods that could help them reduce risks in farming. The availability of excess land for cultivation is limited in Kerala, and therefore in order to ensure higher productivity within the limited land available, there was a need to rely on better methods of production. The UDF government introduced high-tech cultivation as a solution to this concern, for which there was also a need to strengthen the institutions that would assist the farmers in adopting the new methods of cultivation.

The development of agriculture-related institutions had positively influenced the policies of the LDF government. The focus of the LDF government was directed primarily at the welfare of the farmers and agricultural workers and the distribution of land to the landless. The legacy of the major parties of this front had its roots in peasant and farmer struggles in the state which could have influenced their affinity toward the welfare of the cultivators and labourers. Another sphere of focus of the LDF was the development of agriculture through local bodies by providing financial support to carry forward schemes in favour of farmers and agricultural workers. Enabling local bodies to carry out schemes of the government and help shape the policies with regard to the localised needs and demands, subsequently helped improve the sector of agriculture and tackle the crisis in a decentralised framework. The LDF government had spent better than the UDF government in allotting funds to local bodies for this purpose. However, both governments combinedly failed at achieving higher productivity from agriculture even though it was one of the major goals both the fronts put forth at the time of the election. Although there have been policy-level interventions to enhance productivity, it hasn't been reflected at the level of implementation, at which both were failures.

The measures carried forward by any state government to address agricultural distress would be insufficient since most of its causes are beyond the control of the states to resolve. The factors that cause the crisis in the sector are often consequences of the policies taken by the Union government in terms of economy, trade and agriculture. In the context of the neoliberal era, these policies often favour competition in markets, entry of private cartels, and increase in imports of agricultural products, thus causing distress in agriculture sector at the state level. State governments are neither sufficiently equipped to face these larger concerns, nor do these issues fall under their jurisdiction, as per the federal structure of India.

In order to address the piling concerns within the agriculture sector, the Union and state governments have to work hand in hand. The trade policies, tariff pre-determination for agricultural products, and the signing of ASEAN and RCEP trade agreements, etc. by the Union government have had adverse effects on the agrarian sector in Kerala. Unless the state and the Union governments work together to initiate and formulate pro-agricultural policies, there is a possibility for the situation to worsen. The significance of cooperative federalism arises at this juncture where there is scope for the national and state governments to share their responsibilities and functions to pull the agriculture sector out of distress.

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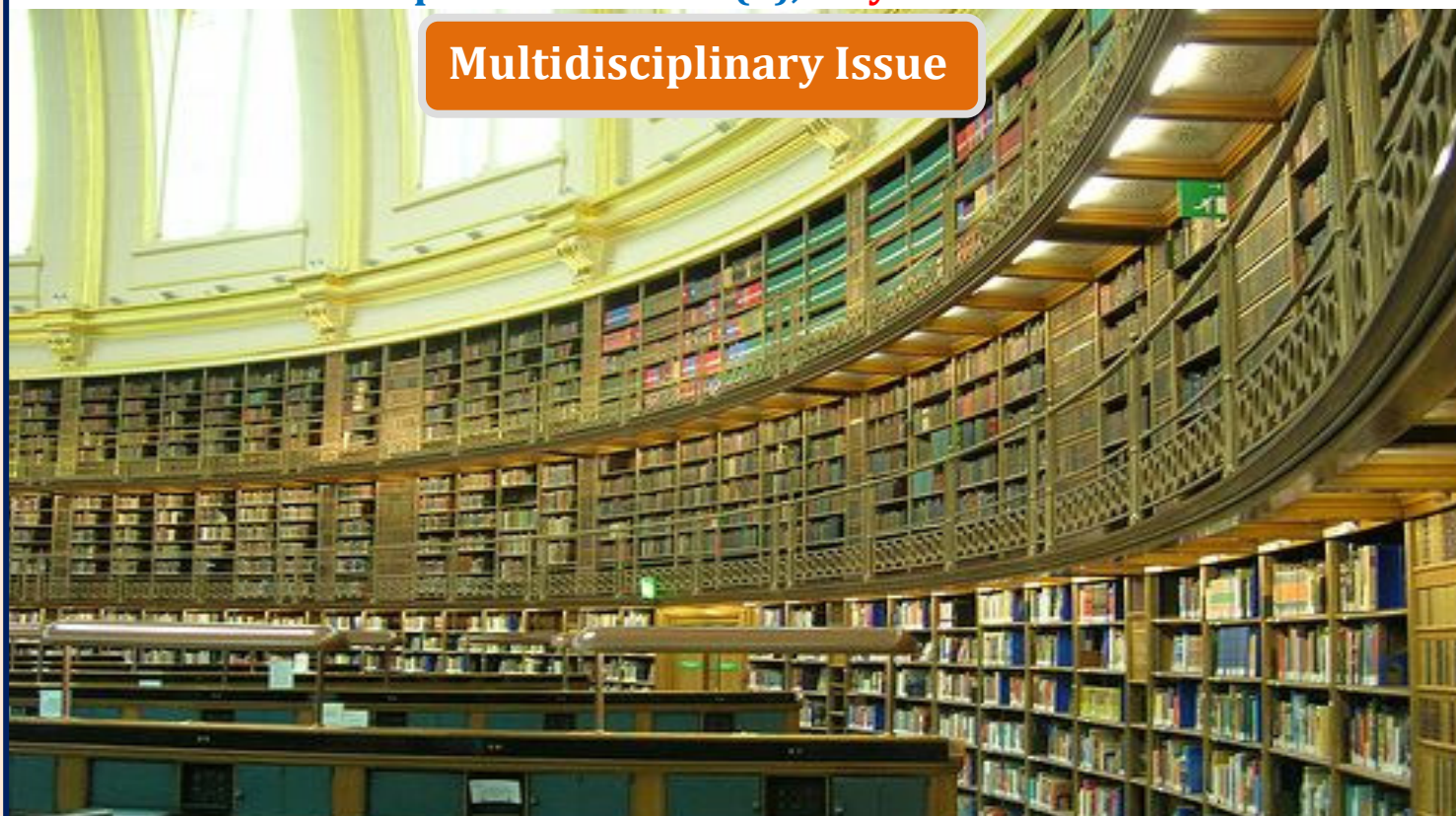
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The Agrarian Crisis and the Challenges to the Development of Agriculture in Kerala

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Introduction:

Kerala's agriculture is unique in several ways, it is (1) a highly fragmented and small size of holdings, except in the plantation sector, (2) homestead farming with mixed crops yielding high income, (3) a larger area under commercial crops, especially capital- intensive perennial tree crops, (4) export orientation of crops, such as spices, cashew, rubber, coffee, tea, etc., (5) credit and hired labour-intensive cultivation, and (6) higher indebtedness of farmers (Bright & Joseph, 2005). Many scholars like P.D Jeromi, R.Ramkumar, P.S George etc, are pointing out that the agricultural sector in Kerala is under crisis. In this paper, I try to discuss the challenges of the agricultural sector in Kerala since 1995.

Causes of Agrarian Distress:

There are various reasons for the agricultural crisis. It varies from one crop to another. However, there are some common causes behind distress in all kinds of agricultural production. Some of them are examined in detail below like high indebtedness, high cost of production, rise in import and decline in export.

a. High Indebtedness:

It is important to take a look at the economic situation of agricultural households in Kerala. 'Income, expenditure, productive assets and indebtedness of agricultural households in India' survey conducted by NSSO in 2002-03 and 2013-14 demonstrates the economic condition of agricultural households in Kerala. The financial income of farmers was calculated by adding wages or salary, net receipt from cultivation, net receipt from farming of animals and net receipt from the non-farm business.

As per the 2003 data, the total annual cultivation income for a farming household was Rs. 13440. The total income was Rs. 48048. The survey analyzes the annual consumption expenditure of Kerala's farming households in detail and finds it to be Rs. 31296. The difference between total annual income and total annual consumption expenditure of agricultural households in Kerala was (-)2952 rupees. From these figures, we understand that the savings of a Kerala agricultural household were negative. They couldn't meet their demand through their income. In the 2012-13 monthly data of the same, the income from wages/salary was Rs. 5254, the net receipt from cultivation was Rs. 3531, net receipt from farming of animals was Rs. 575 and the net receipt from the non-farm business was 2529 rupees. In total, Rs.11888 was the average annual income of agricultural households in Kerala. The average monthly consumption of the same was nearly Rs. 11008. The monthly savings of an agricultural household was found to be nearly Rs. 880 only.

In the 2013-14 'Income, expenditure, productive assets and indebtedness of agricultural households in India survey', the accountable income from the cultivation part was 34% only. Nearly half (44%) of it comes from salaries and wages. The families which completely rely upon

cultivation income will be in a serious crisis. Income is less and expenditure is high; hence they naturally would want to find out other ways to survive. Farmers are again forced to take loans from the bank or private lenders for their livelihood and emergencies like hospital cases, crop damage, marriage, education etc.

The magnitude of indebtedness in rural areas of Kerala is higher than the national average. This is due to factors like the increased concentration on cash crops, higher value of assets per household and the availability of credit through the good network of both formal and informal credit (Jeromi, 2007). The average amount of outstanding loan per agricultural household in Kerala is Rs.213600, and which is the highest among all Indian states; the estimated total of agricultural households in Kerala with an agricultural loan is 10,90,800 which is 77.7% of the total agricultural households (Monitoring and Evaluation Division, 2016). Due to the good network of former credit systems available in Kerala, the farmers are taking the majority of the loans from the former credit system (Sadanandan, 2014). Another striking fact about the utilization of agricultural loans in Kerala is that the farmer households borrow mostly for non-agricultural purposes; the share of non-farm business in total loans borrowed was found to be more than the share of expenditure on the farm (Jeromi, 2007).

b. High Cost of Production

Understanding the cost of cultivation is important for understanding the condition of farming in the corresponding region. The relative profitability in farming, which is determined by the value of output and cost of cultivation and also the cost of cultivation, is one of the factors to determine the base level price of individual commodities (George, 1988). Scholars like P.D Jeromi pointed out that the agricultural sector in Kerala mainly cultivates cash crops, so naturally the cost is higher.

The Government of India and the state governments have initiated measures for obtaining the cost of cultivation of important crops and several estimates covering different crops in different regions are available. Most of these estimates use three different concepts of cost: cost A, cost B, and cost C, which are adopted in the Farm Management Studies (George, 1988). Cost A calculation consists of hired human labour, animal labour, machine labour, seed or seedlings, farmyard manure, chemical fertilizers, plant protection measures, land revenue, irrigation cess, repair, and maintenance charge of implements and interest on working capital, That is, as whole cash and kind of expenses incurred by the cultivator. The cost-B calculation is adding the value of interest on fixed capital (excluding land) and rental value of owned land. The cost-C calculation is adding the imputed value of family labour to cost-B.

While analyzing 'the Survey of Key Indicators of Situations of Agricultural Households in India' by NSSO in 2013, it can be seen that the average monthly expense for crop production in Kerala is higher than the national average. In Kerala, it is Rs.2270 while in India it is Rs.2192. Production costs do not rely on any single factor but multiple factors like cost of seed, irrigation, fertilizer, lease for the land, human labour, animal labour, minor repairmen of machinery and equipment, plant protection chemical, interest of the capital, lease of the land and other expenses, etc. The influence of these factors varies according to the nature of the crop. Let us examine the difference in the cost of production of crops grown in Kerala during the period 2004-2014

Crop wise total cost of cultivation per hectare from 2004-05 to 2013-14 (in Rs.)

Crop	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
Pepper	20438	24082	25856	39207	41568	49990	58957	66986	66498	76517
Coconut	23619	23738	25840	30159	33919	37429	41316	45130	48938	58230
Arecanut	35656	29886	36747	46128	49249	47878	63397	52188	49794	59956
Banana	89490	86449	99345	131333	101133	127586	128514	159202	158533	156015
Ginger	61235	70115	68436	91150	100998	137880	135389	106328	105167	113184
Turmeric	39591	49045	48047	62766	62029	85225	87276	84409	89901	98154

Source: An analytical study on agricultural in Kerala with changes in area and production from 1955-56 and schemes implemented from 2005-06 to 2014-15

Coconut has been one of the largest cropping areas in Kerala. In 2004-05, the cost of production of coconut per hectare was only 23619 rupees. In 2014-15, it rose to 58,320 rupees. It means that the cost of cultivation is 1.46 times higher than in 2004-05. Hired human labour, cost of manure and chemical fertilizer are the contributing factors to the higher cost of cultivation of coconut. During 2004-14, the cost of hiring human labour has increased by 172 per cent, while the cost of manure & fertilizer, the second major component, has increased by 98 per cent only. This may be due to less application of fertilizers and other manures in coconut palm fields. The following table shows the year-wise cost of above components and total cost of cultivation of coconut in Kerala during the above period (division, 2016). In this same period, the cost of production of areca nuts per hectare has increased from 35656 rupees to 569956 rupees. The manifested rate of increase during this period of 10 years is 68 per cent. While examining the figures given in the above table, the cost of production of banana increased from Rs.0.89 lakhs per hectare in 2004-05 to Rs.1.56 lakhs per hectare in 2013-14 and the growth in cost during the period is 74.3 percent. Whereas the cost of ginger production increased from Rs.0.62 per hectare to Rs.1.13 lakhs per hectare during 2004-2014 and the rate of increase is 84.8 per cent. Further analysis of the cost of cultivation of pepper and ginger per hectare exhibit from 2004-2015, the production cost of pepper per hectare increased by an all-time high of 274 per cent. Turmeric is another important spice produced in the State and its cost increased from Rs.39591 per hectare to Rs.98154 per hectare during the above period and the rate of cost growth is 148 per cent.

Item wise average monthly expenditure and receipts for crop production

The following table shows the item-wise average monthly expenditure for crop production per agricultural household engaged in crop production in Kerala in comparison with all India average

	Expense Item	Kerala (In Rs)	India (In Rs)
1	Seed	105	250
2	Fertilizer/ manure	573	526
3	Plant protection chemicals	73	165
4	Irrigation	6	70
5	Minor repair & maintenance of	16	43

	machinery & equipments		
6	Interest	86	32
7	Lease rent for land	186	158
8	Human labour	1074	465
9	Animal labour	14	32
10	All other expenses	136	455
	Total	2270	2192

Source: Key Indicators of Situations of Agricultural households in India, 2013, NSSO, Govt. of India

There is not much of a difference in the average monthly expenditure for crop production required for agriculture in Kerala, compared to the All India level. At the same time, In Andhra Pradesh, it is Rs 6191 (division, 2016). Nevertheless, Kerala is above the national average. Nearly half of the monthly cost of farming is meant for human labour wages. The largest share of the cost of cultivation is allocated to human labour. Due to the cultivation of cash crops, dependence on credit is high in Kerala. Hence, the interest for agricultural credit is more than twice the national average.

The Decline in Export and Rise in Import

Traditionally, Kerala has become a major exporter of commodities such as pepper, cardamom, ginger, coffee, cashew kernels, coir and coir products, tea etc. (Jeromi, 2007) The diverse topographic, climatic and soil-related conditions of Kerala enable its people to cultivate a wide variety of seasonal and perennial crops. Currently, more than 80 per cent of the total cropping area in the state is used for the cultivation of 11 major crops: coconut, rice, rubber, tapioca, pepper, cashew nut, coffee, banana and other plantains, areca nut, cardamom, and tea. An analysis of the changes in the cropping pattern of the state from 1956 shows that there has been a persistent shift in favour of cash crop at the expense of food crop (Thomas, 2004). The area under food crops decreased from 45 per cent of the total cropped area to 10.32 per cent between 1960-61 and 2013-14, while the area under cash crops increased from 36.6 percent to 62.30 per cent during the same period. The emergence of cash crops as the dominant crop is the most notable feature of Kerala's agricultural development in the last five decades. The observed decline in area under staple food crops and the enormous expansion in the area of cultivation of cash crops, particularly of the export-oriented crops, conform to the general trend on the cropping pattern of countries which have implemented neo-liberal trade reform.

Rubber, tea, coffee, pepper were the major exporting commodities from Kerala. Export-oriented or exportable cash crops including natural rubber accounted for 26.8 per cent of the gross cropped area in the State (Kerala, 2016). More than 80% of the rubber and pepper are exported from Kerala. While exports of commodities from Kerala suffered a setback in recent years, there was a rise in the import of commodities which were produced and exported from the state for decades. The import of rubber, pepper, cardamom, coffee and tea increased significantly (Jeromi, 2007).

India as a member of the World Trade Organization and signatory to Uruguay round of GAAT, is required to dismantle all the physical barriers of import and replace it with a suitable tariff in a phased manner. As the Uruguay round seeks to boost agricultural trade via the substantial reduction in protectionism, prices in member countries are expected to move closer to international prices. Due to this market integration, the best protection against imports is to

maintain the domestic prices and cost of production at a level lower than the potential exporting countries. It can only be achieved if the supply growth keeps pace or higher than the domestic demand (Chand, 1998).

As Ramesh Chand pointed out, it is not possible to increase exports without restricting the cost of production. However, based on the report, Analytical Study on Agriculture in Kerala published by the Government of Kerala, one can examine the cost of production of pepper, areca nut, turmeric, and coconut exported from Kerala. The report says that the cost of pepper cultivation in Kerala showed a record increase of 274 per cent during 2004-2014. During 2004-05, the actual cost of cultivation of pepper was Rs.20438 per hectare, and now it is Rs.76517 per hectare. Turmeric is another important spice produced in the State and its cost has increased from Rs.39591 per hectare to Rs.98154 per hectare during the above period and the rate of cost growth is 148 per cent. In 2004-05, the cost of cultivation of areca nut in the State was Rs.35656 per hectare, now it has increased to Rs.59956 per hectare and the rate of increase during this period of 10 years is 68 per cent. The total cost of cultivation of coconut in the State has increased by 146 per cent from 2004-14. During 2004-05, the total cost was Rs.23619 per hectare and now it is Rs.58230 per hectare. Hired human labour and cost of manure and chemical fertilizers are the higher cost components, compared to other components of cultivation of coconut. These figures emphasize the fact that the agricultural exports of the State of Kerala as a whole have been adversely affected.

Significant growth in exports can be achieved, only if the agricultural output is produced more than domestic demand. While looking at the economic survey prepared by the Kerala state planning commission under the Government of Kerala in 2016, one can analyze the production of different potential exporting crops produced in Kerala. Coconut has the largest share in the gross cropped area in Kerala. It has the largest area under the crop in the country. But while comparing the production, Kerala is at the third place. Low productivity is a major source of shrinking production. According to the 2016 economic survey, only 7535 nuts per hectare coconut was produced in Kerala, but was 14873 nuts per hectare in Tamil Nadu and 13808 nuts per hectare in Andhra Pradesh. The main reason for the decline in coconut productivity is due to root wilt diseases, poor crop management, the existence of senile, and unproductive palms. From 2014 to 2015-16, pepper production recorded a decline from 70000 tonnes to 55000 tonnes in India.

Pepper production is mainly affected by low productivity and diseases. India is the largest producer of raw cashew nuts in the world. In Kerala, in the last decade, there has been a continuous and considerable decline in both the area under cultivation as well as the production of cashew. It is alarming to note that the production stood at 60 thousand MT in 2004-05, declined to 33.3 thousand MT in 2015-16. Another major crop cultivated in Kerala is Natural Rubber (NR). In India, natural rubber production declined by 12.9% from 6.45 lakh tonnes in 2014 to 5.62 lakh tonnes in 2016. The vast majority of rubber production in India comes from Kerala, the production scene of rubber was no different in Kerala also, and total production dwindled from 5.07 lakh MT in 2014-15 to 4.38 lakh MT in 2015-16. The volume of export came down from 1002 tonnes in 2014-15 to 865 tonnes in 2015-16. These figures show that Kerala's export potential crops have not been able to produce above domestic demand. Therefore, the import of domestically produced agricultural products to Kerala from other

countries is increasing like pepper from Vietnam and Indonesia, Cashew nut from Brazil and Vietnam, Rubber from China etc.

Conclusion:

The agricultural sector in Kerala is facing a crisis, due to many reasons. Some of these include high indebtedness, the decline in export and rise in import. In order to overcome these crises, the intervention of the state is inevitable. Measures to increase productivity, subsidise fertilizers, seeds, plant protection equipment that add up the cost of production and implement loan waiver system and exporting policies that would aid the farmers. Protection of the agricultural sector is essential for ensuring food security and sustenance of an economy with agriculture as its backbone.

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