Seeds of Distress: An Inquiry into Kerala's Agricultural Decline

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Abstract:
Kerala's agricultural sector, which lies at the heart of its economy, is suffering a severe crisis, characterised by declining productivity, market instability, and increasing farmer distress. Using secondary data from government and institutional sources, this study investigates the structural, environmental, and policy-related causes behind Kerala's agrarian distress. The paper examines trends in land utilisation patterns, shifts in cropping patterns, and falling farm income to realise what crisis is leading to. This study also takes into account how the agricultural stagnation impacts rural livelihoods in a socioeconomic context. The study's findings show multiple factors, including market volatility, susceptibility, and policy gaps, caused this crisis. Based on the study, it proposes sustainable farming, facilitating credit access to farmers and boosting climate-resilient farming, etc., to enhance the livelihood of farmers.

Keywords: Kerala agriculture, agrarian crisis, market volatility, farmer distress, climate change.

Introduction

Agriculture has always been central to Kerala's economy and culture. The state had a diversified cropping pattern as an economic centre for crop production—paddy, coconut, rubber and spices—owing to its bountiful natural resource potential and an appropriate climate. Agricultural performance in Kerala had been steadily declining by the late 1990s. Agriculture's contribution to the Gross State Domestic Product (GSDP) decreased from 28% in 1990–91 to less than 10% in 2017 (Government of Kerala, 2017). Certain policy initiatives are needed to to overcome these challenges and sustain the agriculture sector. The state should implement multifaceted policies for improving agricultural practices, thereby enhancing support for farmers to adapt. The decline in the area under cultivation, the increase in farmer suicides, and the out-migration indicate that a complete agrarian crisis is imminent. Ecological fragility, growing urbanisation, and a lack of institutional support compound this crisis. This paper aims to analyse the causes and explore policy options that can restore sustainability in Kerala's agricultural sector.

Background and Historical Context

From the 1960s to the 1980s, Kerala's agricultural system flourished under the principles of community farming and land reforms. After the liberalisation of the Indian economy in 1991, the agricultural sector took on the risk of global market exposure without adequate protection from foreign competition or a willingness to adopt modern technologies. Prices of traditional crops such as coconut and rubber became volatile (typically a function of foreign commodity markets) (George 2005). Consequently, the shift towards commercial crops and the impact of trade liberalisation have made life increasingly difficult for farmers, leaving the sector more and more indebted (Jeromi, 2007).

Table 1- Contribution of Agriculture to the State's Economy (1970-71 to 2016-17)

Years	GSDP (Rs. in crores)	Agriculture	Sectoral contribution
1960-61	462	241	56.0
1970-71	1255	653	49.4
1980-81	3823	1682	39.23

1990-91	12195	4756	32.23
2000-01	63715	14071	25.30
2009-10	180812	15966	11.06
2016-17	485301.54	45936.94	10.6
2017-18	520578.51	47171.3	10.2

Source: Kerala Economic Review

Table 2- The Compound Annual Growth Rate of Agriculture Sector in Kerala

Year	CAGR (%)
1960-61 to 1970-71	10.35
1970-71 to 1980-81	9.95
1980-81 to 1990-91	10.88
1990-91 to 2000-01	11.64
2000–01to 2009-10	1.42
2009-10 to 2016-17	15.76
2016-17 to 2017-18	2.69

Source: Compiled by the researcher

Kerala's agriculture sector had grown about 11% p.a. in nominal terms from 1960-61 to 2017-18. While nominal growth was strong up to the late 1990s, the early 2000s saw stagnation in agriculture and farm income followed by re-acceleration since 2009-10, driven by prices, not by volume. Despite this, the share of agriculture in GSDP decreased from 56% to 10%, indicating traditional structural realignment toward services and industry.

Table 3- Pattern of land utilisation in Kerala

Classification	1980-81	1990-91	2000-01	2005-06	2010-11	2015-16	2017-18
Total geographical area	3885497	3885497	3885497	3886287	3886287	3886287	3886287
Forest	1081509	1081509	1081509	1081509	1081509	1081509	1081509
Land put to non-agricultural use	**269824 (6.94)**	**297381 (7.65)**	**381873 (9.82)**	**370322 (9.52)**	**384174 (9.88)**	**434646 (11.18)**	**443041 (11.40)**
Barren and uncultivated land	85770	58308	29318	26457	19573	13100	10894
Net sown area	**2179590 (56.09)**	**2246774 (57.82)**	**2206126 (56.77)**	**2132483 (54.87)**	**2071507 (53.30)**	**2023073 (52.05)**	**2040415 (52.50)**
Area sown more than once	705250	773206	815546	853244	575954	604504	539284
Total cropped area	**2884840**	**3019980**	**3021672**	**2985727**	**2647461**	**2627576**	**2579699**
Total cropped area as a percentage to total geographical area	**74.27**	**77.27**	**77.76**	**76.84**	**68.12**	**67.61**	**66.37**

Source: Kerala Economic Review

The area under cultivation of paddy in Kerala decreased almost 70% between 2000 and 2010, declining from 8.9 lakh hectares in 1975–76 to only 2.1 lakh hectares in 2015–16 (Directorate of Economics and Statistics, Kerala, 2016). Farmers turned to other crops such as rubber and bananas with higher yields and lower labour needs, but these increased their vulnerability to price shocks and pests (Joseph, 2014). It is the time for a multi-pronged solution, comprising efforts to provide immediate support to farmers and to sustain agriculture over the long term. The urgent challenge calls for a series of policy measures, with emphasis on sustainable agriculture, greater access, and financial assistance to farmers in economic distress.

Statement of the Problem

Kerala's agricultural foundation finds itself in a precarious situation. Despite high literacy levels, a vigorous cooperative movement and forward-thinking land reform, the state's farming system stagnates. For farmers, they are caught between rising input prices and volatile market prices on the one hand and repeated climate shocks on the other. Paddy fields are disappearing fast, being converted to residential or commercial plots. The area under paddy cultivation decreased from 8.9 lakh ha in 1975–76 to just 2.1 lakh hectares in 2015–16 (Directorate of Economics and Statistics, 2016).

Such a structural change has affected the state's self-sufficiency in staple foods, and it has become merely dependent on its neighbouring states. Fragmented holdings, poor price support systems, and restricted access to institutional finance worsen the situation. The agricultural crisis, if left unresolved, poses a significant threat to Kerala's economic survival, food security and rural livelihoods.

Objectives of the study

1. To explore and establish the key factors that explain the agricultural crisis in Kerala.
2. To investigate the socio-economic effects of diminishing agricultural performance.
3. To assess the effectiveness of institutional and policy interventions implemented in the agriculture sector.
4. To propose possible sustainable resilient modes of agricultural development in Kerala.

Methodology

This study is based on secondary data sources that are authentic government and institutional data sources. The key data sources include Kerala Economic Reviews, Agricultural Statistics of Kerala 2015–16, NSSO 70th Round (2014), reports from the Kerala State Planning Board, the Rubber Board (2016), and Kerala Agricultural University (2010). The study used a descriptive approach to examine long-term trends in areas, productivity, production, and income.

Analysis and Discussion

Declining Profitability and Fragmentation of Land

The average size of agricultural holdings decreased from 0.32 ha in 1970 to 0.18 ha in 2014 (NSSO, 2014). The period from 2000 to 2015 witnessed a tremendous increase in input and labour costs, which contributed to a fall in profitability. Real farm income declined by approximately 25% during the same period (Planning Board, 2016). The fall in average size of agricultural holdings is an indicator of crisis in the agrarian sector. Subdivision and fragmentation of land is the prime cause for this crisis and necessitates urgent policy action of consolidation of holdings and sustainable farming methods.

Market Instability and Globalisation

The post-liberalisation era experienced volatility in agricultural prices. For example, rubber prices decreased from Rs.180/kg in 2011 to Rs.120/kg in 2015 (Rubber Board, 2016). The decrease in rubber prices has severely affected farmers' income and worsened the agrarian crisis in Kerala, and hence effective market stability policies are needed immediately.

Environmental Tumult and Climate Change

The Kerala State Action Plan on Climate Change (2014) stated a 15 per cent decrease in rainfall and higher temperatures leading to yield losses. Besides these fragile ecological conditions, jeopardizing agricultural production, that enhances the socio-economic vulnerabilities of the farming population in Kerala, prompting urgent adaptation interventions.

Failures of Institutions and Policies

The enforcement of environmental laws such as the Wetland Conservation Act (2008) and Organic Farming Policy (2010), is very weak in the state. Poor accessibility of credit, with less than half of small farmers being able to access institutionally guaranteed loans (NSSO, 2014). Successful policy interventions should focus on improving institutional capacity and access to credit for farmers to ensure that agro-ecosystem practices are in line with sustainable development.

Socio-Economic Impact.

More than 2,000 farmer suicides occurred in the period between 2001 and 2010 (Kerala Agricultural University, 2010; NCRB, 2012). Women, who make up 40 per cent of the rural workforce, faced shrinking job opportunities (Census of India, 2011). The combination of all these factors stresses the urgent requirement not only for comprehensive policy reform to address the agrarian crisis but also for resilience in Kerala's farming communities.

Findings

1. Kerala's agricultural crisis is deeply intertwined with factors such as liberalisation measures, ecological stress and weak institutions.
2. Higher production costs and market volatility exert pressure on the competitiveness of the farmers.
3. Climate instability is yet another factor that worsened the agriculture in the state.
4. Insufficient supply of institutional finance and limited insurance coverage also exacerbated the situation.
5. Reliance on food imports endangers self-sufficiency.

Recommendations

1. **Enhance the variety of crops (e.g., rice–fish–duck)** - As a result, biodiversity is achieved, and sustainable agricultural practices are encouraged by optimised resource use and improved ecosystems.
2. **Promote water/climate-resilient farming** - novel practices may also be adapted in response to climate variability through precision farming and crop diversification, thereby further enhancing resistance to climate variation and increasing overall agricultural sustainability.
3. **Strengthen cooperative credit and insurance** – this will help to support food security while also promoting the sustainability of agricultural systems in the long run.
4. **Develop farmer-owned processing and marketing units** - Establish a range of farmer-owned processing and marketing facilities, as well as other resources that will enhance their production and market control and allow more sustainable agricultural practices.
5. **Enforcement of Law** - Enforcement is crucial, since it makes production more ecologically sound. Conservation of paddy fields and wet lands, which are essential parts of the environment, became a necessity. These plans, when taken together, give rise to a more sustainable agricultural environment—where food security is preserved and the urgent problems posed by climate change are solved.

Conclusion

Kerala's agricultural crisis is multidimensional—economic, environmental, and institutional. Despite social progress, agriculture remains fragile. For reinvigorating the agricultural sector in Kerala, policies that promote sustainable farming, financial inclusive practices, and participatory governance are needed. Addressing these intertwined issues is critical for ensuring the sustainability of farming, food security and the well-being of its farming communities.

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