ISSUES AND CHALLENGES FACED BY FARMERS IN SUSTAINABLE AGRICULTURE

Abstract

Agriculture significantly contributes to Indian economy; however, it faces numerous issues and challenges. The study examines select issues and challenges faced by small farmers, cultivating commercial crops in 6 districts of Tamil Nadu, India. The issues and challenges identified in the study are lack of knowledge on cost accounting, sunk cost, price fluctuation, price determination, return on investment and standard of living. The study shows that majority of the farmers (around 73 per cent) have a low level of awareness on ascertainment of cost of production. It also reveals that there is no significant association between district in which the farmers cultivate and level of awareness on ascertainment of cost of production. The study also reveals that agricultural sustainability requires addressing these challenges in a systematic and inclusive manner. The study suggests that role of Cost Accountants is crucial in addressing these issues.

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Introduction

Agriculture plays a crucial role in India's economy, contributing significantly to food security and rural employment. India is the world's second largest in agricultural land area and is a leading agricultural producer (*IBEF*, n.d.). However, agriculture in India faces numerous issues and challenges. In this context, sustainability of agriculture remains questionable as economic viability and stable income for farmers is a serious concern. This study examines the major issues and challenges faced by the farmers to ensure sustainability of agriculture.

Methodology

Small farmers, cultivating commercial crops constitute the population of the study. Non-probability convenient sampling method was used to collect the primary data from a sample size of 384, using interview schedule along with observation. The secondary data were collected from books, journals, government reports and websites. The study was undertaken in 6 districts (64 samples each), namely, Coimbatore, Cuddalore, Dindigul, Krishnagiri, Thiruvannamalai and Tirunelveli of Tamil Nadu, India in 2025.

Analysis and Discussion

I Socio-economic profile of the respondents

Majority of the respondents (92 per cent) are men and only 8 per cent are women. Around 70 per cent of the farmers are school educated. The average family size is around 4.20. Around 80 per cent of the farmers live in their own houses. Around 78 per cent of respondents live in pucca houses. The average annual farm income is Rs.1,95,000. For half of the respondents, farm income contributes upto 48 per cent of the total household income. The average annual household expenditure is around Rs.2,32,000. For half of the respondents, farm income contributes more than 54 per cent of the total household expenditure.

II Challenges of farmers engaged in agriculture in India

The farmers chosen in the study face several challenges. The following challenges are analysed in this study.

i) Lack of knowledge on Cost Accounting

Economic value is a key factor for sustainability of any sector. Sustainability in farming greatly depends on its earnings. The true earnings can be known only when accounting is properly done with regard to cost of production. Cost of production includes both cash cost and non-cash cost. Cash costs are the costs for which a farmer spends money for acquisition of material inputs or labour inputs. Non-cash costs are attributable to items of cost, which do not require spending money like family labour, household made manure (own), exchange labour and depreciation.

As per Indian Cost Accounting Standards 6 (CAS-6) on Material Cost, the material cost may include imputed costs. In farming, the value of own materials (farm yard manure and fertiliser) used by the farmers can be imputed. The non-cash cost can be valued on the basis of the normal market value.

As per Indian Cost Accounting Standard 7 (CAS-7) on Employee Cost, principles of measurement state that employee cost shall not include imputed costs. It also states that any change in the cost accounting principles and methods applied for the measurement and assignment of the Employee Cost during the period covered by the cost statement which has a material effect on the Employee Cost must be disclosed. But, as per "Concept note on augmenting the farmers' income: Road map for CMAs", the cost estimates must take into account real factors of production and include all actual expenses in cash and kind incurred by the farmer for the production, rent paid for leased land, imputed value of family labour, interest value of owned capital assets (excluding land), rental value of owned land (net of land revenue), depreciation of farm implements and buildings and other miscellaneous expenses.

In farming, the imputed cost of labour can be included in the Direct Labour Cost for better understanding and reporting.

As per the Report of the Expert Committee to examine methodological issues in fixing MSP, Government of India, the value of family labour must be imputed by considering the statutory wage rate or actual market rate whichever is higher. On this basis, the value of family labour (farmer and family members), can be imputed.

While apportioning overhead cost such as irrigation cost, electricity, motor's repair and depreciation, borewell's repair and depreciation or transportation cost, appropriate bases are to be used. Activity based costing is the best technique to apportion the overheads based on the activities involved in the farming. While apportioning depreciation, weightage is to be given for the cultivation area. Preliminary expenses in farming refers to cost incurred in initial years before the first yield, which are to be amortised over the useful life of the crop.

The study shows that the respondents face difficulty in accurately determining the costs of their agricultural products due to lack of understanding of these cost accounting principles and standards. Most farmers do not maintain systematic cost records and therefore remain unaware of the actual cost of production. Costing concepts such as cost units, consideration of imputed cost, amortisation of establishment cost and allocation of overheads are largely absent at the farm level. Consequently, they are unable to determine break-even point,

contribution, or assess whether they are earning true profit or loss. The study shows that majority of the farmers (around 73 per cent) have a low level of awareness on ascertainment of cost of production.

To know the association between district in which the farmers cultivate and level of awareness on ascertainment of cost of production, Chi-Square test was used. The analysis shows $\chi^2 = 5.439$, df = 10, N = 384, $p>0.05$ ($p = 0.860$). Since the p value is not less than 0.05, there is no significant association between district in which the farmers cultivate and level of awareness on ascertainment of cost of production.

The absence of standardised costing and compliance with cost accounting principles and standards weakens pricing decisions, restricts financial planning and leads to persistent income instability among the farmers, thereby posing a serious challenge to the sustainability of agriculture in India.

Farmers should be regularly trained on basic cost accounting principles and standards through organisations like Krishi Vigyan Kendras (KVK), Farmer Producer Organisations (FPO) and The Institute of Cost Accountants of India (ICMAI). ICMAI should undertake more research, publish guidelines and offer advisory services on agricultural costing to support agricultural sustainability by standardising farm cost concepts.

ii) Sunk cost

Sunk costs are the historical costs which are incurred in the past and are not relevant for decision making for the current period. These are the costs incurred on a project and cannot be recovered if the project is terminated. Sunk cost in agriculture shall include cost incurred for drilling borewell which do not yield water, money spent on crop for purchase of seeds, fertilisers, pesticides, labour or overheads which was lost in drought or on failed crop. Sunk costs are classified as non-relevant costs for decision making. It is not included in the cost of production. Sunk cost poses a significant challenge to agriculture in India, as farmers incur substantial sunk cost which reduces the overall profitability and weaken the Return on investment and results in investment distortions as they are irrecoverable. Repeated sunk cost threatens the sustainability of farming operations and farmers. In this study, majority of the respondents (around 60 per cent) have incurred sunk cost in one way or the other. Farmers should be encouraged to take insurance for crop to reduce the incidence of sunk costs arising from crop failure. They should conduct basic feasibility and cost benefit analysis before making capital investment to avoid creation of sunk cost.

iii) Price Fluctuation

Price fluctuation refers to the substantial and unpredictable movement in market prices and it plays a key role in agriculture. A study using 23 commodities across 165 Indian markets (2010–2024) confirms that agricultural price volatility is a significant and critical issue (Manogna et al., 2025). Price fluctuation poses a serious challenge to farmers as their income is directly dependent on the price, they obtain by selling their crop in the market. In season when supply increases, prices often crash sharply, resulting in low selling prices, in some cases even below the actual cost of production. In some cases, produce remains unharvested as farmers are unable to meet the harvesting and transportation costs. Conversely, during off-season, prices may surge but farmers often do not reap its benefit, as they are unable to store the produce which are produced in season due to poor warehousing and the perishable nature of produce and moreover, the production is low in off-season. The government should take measures for price stabilisation and market intervention schemes to protect farmers from sharp price crashes.

iv) Price Determination

In India, where the price of many commodities is decided by the producers, the price of agricultural produce is usually determined through a combination of market forces and government intervention. The demand and supply factors largely influence the prices of agricultural produce, while Minimum Support Price (MSP) is announced by the government to protect farmers from price crashes. MSP is a mechanism through which the government

supports farmers by purchasing their crops at a pre-determined price. The aim of MSP is to protect farmers from distress sales and price volatility (*PIB Headquarters*, n.d.).

A comparison of Domestic Market Prices and MSP provided in Commission for Agricultural Costs and Prices (CACP) in its report for the Kharif season 2025, prices of crops like tur/arhar, urad, groundnut, soybean, moong and cotton were significantly below the MSP (Commission for Agricultural Costs and Prices, 2025). Despite the existence of the MSP regime, a large proportion of farmers do not get its benefits as they sell their produce to private traders at prevailing market prices.

Further, MSP is provided only for 22 mandated agricultural crops, while many crops are not covered under MSP. This excludes a large proportion of small and marginal farmers from the benefit of MSP. MSP benefits should be extended to all crops and measures should be taken to ensure assured procurement on a timely basis.

v) Return on Investment (ROI)

Return on Investment (ROI) is the earning or profit generated on the amount of money invested. In agriculture it is calculated by dividing the net return from agriculture by cost of investment. Net return is the total amount of money from agriculture less all the cost incurred. The expected profit should be computed by adding the risk premium with the risk-free rate of return. Risk refers to the variability in the expected return of an investment. It arises from factors such as changes in demand, opportunity cost, fluctuations in product prices and raw material costs, pest infestations, labour shortages, water scarcity and natural calamities.

Risk free rate of return is the return earned on investment without taking any risk, for example, return on long term bank deposits, government bonds and treasury bills. Risk premium is the expected additional return to be added for the risk taken. The analysis of the data from CACP for the year 2023-2024 show that the profit margins for most crops have declined (Thakur, 2025). Many farmers in India often invest large amounts in agricultural inputs but their income is low and unstable. Their returns relative to what they put in are often less compared with other businesses like manufacturing or service sectors. Many farmers struggle to earn enough after costs, and rising input costs often surpass price gains. Youth are not encouraged from entering into farming due to unattractive return on investment from agriculture.

vi) Standard of living

There are several factors that influence the standard of living of the people. One of the important factors is the annual household income. A report by India today based on a survey by NABARD shows that the average monthly income of an Indian farming household is only Rs.13,661, of which just Rs.4,476 (33 per cent) comes from agriculture. In this study, the annual household income of the respondents varies between Rs.29,785 and Rs.8,05,624; the mean is around Rs.3,12,000 and the median is around Rs.2,95,000. The Global Living Wage Coalition (GLWC) defines Living income as the net annual income required for a household in a particular place to afford a decent standard of living for all members of that household (Global Living Wage Coalition, 2019). As per the GLWC, the living income for Rural Nilgiris, Tamil Nadu, India (updated for 2025) is Rs.2,90,256. The study shows that around 46 per cent of the respondents' household income is below the living income benchmark for Nilgiris. The study also shows that around 90 per cent of the respondents do not save.

Conclusion

This study highlights the major issues and challenges of the farmers that constrains the long-term viability of the agricultural sector. Majority of the respondents have low level of awareness on ascertainment of cost of production. In this study, majority of the respondents (around 60 per cent) have incurred sunk cost in one way or the other. The study shows that around 46 per cent of the respondents' household income is below the living income benchmark for Nilgiris. Agricultural sustainability requires addressing these challenges in a systematic and inclusive manner with policy

interventions to secure the long-term sustainability of the agricultural sector. The role of Government and Cost Accountants is crucial in addressing these issues, as effective cost accounting is essential for informed decision making and economic sustainability of agriculture. MA

References

1. *Alagh, Y.K. (2005), Report of the Expert Committee to Examine Methodological Issues in Fixing MSP, Ministry of Agriculture Government of India., New Delhi, India, (1–150).*
2. *Commission for Agricultural Costs and Prices. (2025). Price policy for kharif crops: The marketing season 2025–26. Ministry of Agriculture & Farmers Welfare, Government of India.*
3. *Dalston, L.C., and Jenitra, L.M., (2018), Cost Accounting, Learntech Press, Trichy, India*
4. *Global Living Wage Coalition. (2019, June 5). Living Income vs. Living Wage - Global Living Wage Coalition. https://www.globallivingwage.org/about/living-income/*
5. *Guzmán Prudencio, G., Andersen, L. E., Delajara, M., Anker, R., & Anker, M. (2025). Living wage update report: Rural Nilgiris, Tamil Nadu, India, 2025 (Living Wage Update Report No. 25-04-38). Anker Research Institute.*
6. *IBEF. (n.d.). India Brand Equity Foundation. https://www.ibef.org/industry/agriculture-india*
7. *ICMAI, (2020), Concept Note on Augmenting the Farmers' income: Road Map for CMAs, The Institute of Cost Accountants of India Kolkata, India*
8. *ICMAI, (2024), Cost Accounting Standards (CAS No 1 to 24). Cost Accounting Standards Board, The Institute of Cost Accountants of India, Kolkata, India*
9. *Manogna, R. L., Dharmaji, V., & Sarang, S. (2025). A novel hybrid neural network-based volatility forecasting of agricultural commodity prices: empirical evidence from India. Journal of Big Data, 12(1). https://doi.org/10.1186/s40537-025-01131-8*
10. *PIB Headquarters. (n.d.). https://www.pib.gov.in/PressNoteDetails.aspx?NoteId=155448&ModuleId=3®=3&lang=2*
11. *Thakur, A. (2025, July 18). For most Indian farmers, costs grow faster than income. The Times of India. https://timesofindia.indiatimes.com/india/for-most-indian-farmers-costs-grow-faster-than-income/articleshow/122772650.cms?utm*

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