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Dimensions of Agricultural Farmer's Problems" – A Study with Reference to Dakshina Kannada District

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Abstract

This study explores the diverse and complex challenges faced by agricultural farmers in Dakshina Kannada, Karnataka, where agriculture is integral to the economy, food security, and cultural heritage. The region's agrarian community faces pressing issues such as water scarcity, climate change, limited infrastructure, fluctuating market access, and socio-economic constraints, all of which impact agricultural productivity and resilience. Through a detailed survey of farmers, this study analysed demographic patterns, motivations, educational backgrounds, family structures, and levels of agricultural experience to understand the unique perspectives within the farming community.

Key findings reveal that age distribution skews youthful, while there's also a strong representation from experienced farmers, highlighting both innovative practices and traditional knowledge. Dependence on agriculture for livelihood remains high, with crop diversity and sustainable practices being crucial for economic resilience. Climate variability, soil fertility decline, and pest issues are among the most significant challenges faced by farmers, with solutions like water management, market access, and financial support deemed most effective. Migration trends, driven by economic opportunities, are affecting farming operations, further underscoring the need for tailored policies.

The study recommends a multifaceted approach to agricultural development, including balanced representation in surveys, economic Upliftment, support for traditional and sustainable farming practices, climate adaptation measures, and infrastructure improvements. Emphasizing these areas will contribute to a resilient, productive, and sustainable agricultural sector that aligns with regional socio-economic development goals.

Key Words: Agricultural farmers, Dakshina Kannada, Innovative practices, Traditional knowledge and Economic resilience.

Introduction

The history of agriculture in India dates back to the Neolithic period. India ranks second worldwide in terms of agricultural products. According to the Economic Survey of India 2020-21, agriculture employs more than 50% of the Indian workforce and contributes 20.2% to the country's GDP. Agriculture is of immense importance in India, not only as an economic sector but also as an important part of the social fabric of the country. About three-quarters of Indian households depend on rural income, and a significant portion of the population, especially the poor, lives in rural areas. The sector plays a significant role in the future and a critical role in ensuring food security by producing essential crops such as grains, fruits,

and vegetables, to meet the needs of the growing population. Farmers play a vital role in the agricultural sector, serving as the backbone of food production and supply chains worldwide. Their dedication, hard work, and expertise are essential in growing crops, raising livestock, and ensuring the sustainability of our food systems. Through their commitment to innovation, efficiency, and environmental stewardship, farmers not only feed the population but also contribute significantly to economic growth and rural development.

Towards the West of Mysore, locate a thin strip of land stretching down to the costal Arabian Sea, namely South Kanara (present-day Dakshina Kannada) in Karnataka. Geographically, Dakshina Kannada is a Southern coastal district of Karnataka with an area of 4,559 sq. km. The district is about 177 km, in length and 40 km in width at its narrowest and about 80 Km at its widest part. This costal landscape abounds in vegetation such as evergreen and semi-evergreen forests, mangroves, beach vegetation, planted groves of trees, horticulture gardens, agricultural fields, grasslands, household gardens. Dakshina Kannada population is a heterogeneous mix of different religious, castes and classes. It has a population of 2,083,625 of which 1,032,577 and 1,051,048 are male and female respectively. The average literacy rate in 2011 is 88.62 compared to 83.35 of 2001. In this male literacy is 93.31 and female literacy is 84.04. In sex ration the district is has 1018 female per 1000 male in 2011 as compared to 2001 census figure of 1022. Dakshina Kannada is considered as a 'progressive district' as per the Human Development Index (HDI) and ranks high with regard to the HDI, Gender Development Index (GDI), sex ratio, female literacy, and agricultural wages for women. Socio-economic and ecological divergence adds to the cultural heterogeneity quotient as compared with the rest of Karnataka. Within the district, heterogeneity exists between regions, as villages are different from each other in their geographical patterns, variations in political hegemony, caste supremacy and modern versus traditional values etc.

A village is a powerful idea for analysis in social science discipline, as it gives the researcher an opportunity to explore the socio-economic, political, cultural dynamics of the society. It brings out the interconnected and intra-connected dynamics between the communities, social structure and peripheries of the communities. Villages have their own historical and cultural narratives as they create an interesting 'field' for an anthropological inquiry exploring the agrarian society. Dakshina Kannada agrarian history through ethnography approach gives an insight into the changing agrarian social structure and their functions in the society.

Dakshina Kannada villages

Writing, observing, or even criticising the village is a difficult task because of the inbuilt complexities. Dakshina Kannada villages are complex in their character, as they are rather modern in comparison to other Indian villages and often give the image of small town. Majority of the villages in the district are socially and economically advance; people are politically conscious and aware of development activities. Commercial agriculture has created capital among farmers and importance given to education has brought divergent group of youths into trade, commerce and service sector. The significance of village geography is the sacred groves locally referred, as 'bana' (a protected land), 'nagabana' and 'Bhootasthana' are the worship places for communities and families. It is a stretch of landscape within the village, agricultural land symbolise a secular, sacred culture and traditional practices of the people linked with the biodiversity of the region. It has created different geographical divisions within the ecological and cultural affinity of the people as it varies in terms of size, ownership patterns and vegetation. Sacred geographies have created physical spaces for castes like Bunts, Poojaris, and Brahmins, which is beyond the modern demarcation of the village and has socio-political significance in the religious contexts. Concisely, village is a unit

within the larger society which includes production, identity, administration of the community and it has inter and intra relationships within the society, which becomes the base for rural life. The dispersed feature of the district has created 'individual spaces' within the village geography, community, families, and people. In the villages, houses are scattered around the village giving the impression of different settlements with farmers residing in their own agricultural land with livestock. Each house has its own source for water like wells, ponds or recent addition of bore wells. This kind of a dispersed settlement does not facilitate socialising within the community unless the farmer chooses to visit the village centre. Each farmer resides within his agricultural land and creates own world away from the village and community. This style of living provides personal space and individual life styles. Individual spaces in the region have created physical, social, cultural and emotional isolation of households. The isolation of the human settlement within the village has contributed towards the feeling of detachment of the villagers from participating in the day today activities of the community. However, in recent times, there has been a noticeable trend of migration towards urban areas, because of the challenges and hardships in the agricultural sector. Thus, it is very important to analyse the problems and challenges of farmers in the field of agriculture to reduce migration.

Objectives of the study

1. Investigating the socio-economic factors imparting farmers of Dakshina Kannada District.
2. Assess the agricultural practices and environmental problems and challenges faced by the farmers in the study area.
3. Identifying the different dimensions of agricultural farmer's problems in the study area.
4. Tracing the reasons for migration towards cities by the agriculturist in the study area.

Research methodology

Basically under this section, a lot of very critical issues like the research process, design, population, sampling techniques, research instruments, data collection procedures, analysis, and research limitations were discussed systematically.

- **Research design:** Generally, research design helps the researcher to attain the study objectives, for the fulfilment of the research, the objective is schematically designed so that way the data collected is accurate and relevant. Kinner et al (1996) suggested that a research design is a basic plan that guides the data collection and analysis. This work was conducted during the month of April, 2024.
- **Study population:** The study population consisted of farmers/ agriculturists of Dakshina Kannada District. The directly targeted respondents were farmers/ agriculturists since it is they who provide actual cultivation of field practices followed in the study area.
- **The study sample and sample size:** This part aimed to determine the sample size of the population involved in the study, decide on the appropriate sampling techniques that were employed, and criteria for the selection of each sampling technique. The samples were selected with consideration of presenting the targeted group. Random sampling was applied to select from the population. Sample size is the number of observations used for calculating estimates of a given population. 90 samples were identified from farmers/ agriculturists of Dakshina Kannada District taluk-wise (Mangalore, Belthangadi, Puttur, Sullya and Bantwal) in the study area.
- **Data analysis techniques:** The data will be cleaned, coded, and categorized per each of the research variables and then analysed using descriptive analysis such as frequency, percentage, and mean. It is anticipated that the study generated both quantitative and qualitative data. The descriptive

statistics data analysis method will be applied to analyse numerical data gathered using closed-ended questions. The Statistical Package for Social Sciences (SPSS Version 26) computer software was used to process data and to generate data arrays that were used for subsequent data analysis. SPSS Version 26 has descriptive statistics features that assist in variable response comparison and give a clear indication of response frequencies.

- **Limitations of the study:** To achieve the objective the researcher planned to triangulate the results of the collected data from farmers/ agriculturists who currently cultivating the land and those who left the process are not considered for the interview. The results of this study may apply only to areas similar to that of the study. Therefore, the result of the study cannot be generalized to another field. This study is based on the data furnished by the respondents as well as the observations of the researcher during the survey. An element of personal bias may affect the data to some extent. The method followed in the study to collect required information through questionnaires is from the sample chosen, hence, the entire workforce of the industry could not be covered for the study. Despite the above limitations, the researcher has put in a sincere effort to gather the primary data required for the study by approaching the farmers/ agriculturists.

Literature review

- A paper authored by **Mr Lokesha and Dr Ishwara P and Mrs Vishal Samartha** (2013) in their article titled "A study on agriculture financing by farmers in Dakshina Kannada District" examines agricultural finance in the Dakshina Kannada district. The study aims to understand the various factors related to agricultural finance in the region. The findings indicate that elements such as farmers' education levels and rationale for borrowing impact their choice of institutional lenders for agricultural credit. Additionally, family structure influences loan utilization. Further research could investigate agricultural credit using demographic and geographic variables.
- **Mr Kishor Rao and Ms Mahalakshmi C D** (2008) in their study "An empirical investigation on the issues and challenges in marketing agricultural products in Dakshina Kannada and Udupi Region", aimed to understand the problems and obstacles farmers face in selling farm products. They also wanted to provide meaningful recommendations for agricultural marketing. The study found that the government should take steps to improve agricultural marketing and build trust with farmers. Providing proper storage, especially cold storage, for perishable farm goods at reduced rates is vital. In addition, encouraging farmers to form cooperatives and work together could address common difficulties and enhance rural incomes. Access to market information through sources like television, newspapers, and e-commerce platforms is critical. Embracing new technologies instead of solely relying on manual labour will increase efficiency in agriculture.
- **Vijay Kumar Hemappa Manegar's** (2015), in his article "Problems faced by farmers in Karnataka" aimed to examine and list the challenges in agriculture in Karnataka. The study found that Karnataka's farming industry is in a dire state, with over 3,500 farmer suicides from 2013 to 2017 resulting from problems like drought and crop failure. Despite government initiatives, the sector continues to depend heavily on rainfall, worsening the circumstances, especially in drought-prone areas like Northern Karnataka. Pressing actions are required to tackle these difficulties and revitalize the agricultural sector, a significant contributor to the state's GDP.
- **Manjunath Hanamantray Shahapur and Dr Ramesh** (2021), in their paper “Study on problems faced by farmers of Yadgir District of Karnataka state”, identified the challenges faced by farmers in the Yadgir district of Karnataka state. The study found that farmers in the region faced several

problems including pests, diseases, soil issues, harmful effects of insecticides, drought, late heavy rainfall, labour shortages, black marketing by private traders, and unpredictable weather events like sudden rainfall and pest/disease outbreaks. Other problems reported were high costs of seeds, fertilizers, pesticides, and labour wages, low minimum support prices offered by the government, and low returns on investment. To maintain optimal soil productivity, the authors suggest combining scientific and traditional farming methods along with supportive government policies to improve farmers' livelihoods and well-being.

- **Dr Manjunath B Tallur and Smt Roopa S Churi** (2022), in their article "Future of agriculture system and transformation in Karnataka", identified the present overview of agriculture in Karnataka and examining its current status, challenges, and future trends with opportunities. They find that there is an urgent need to address issues facing agriculture and develop sustainable solutions to improve the sector and rural development. While modern farming technologies and equipment that can boost production are now abundant, it remains to be seen whether farmers will be able to utilize these given constraints like education levels, small landholdings, poor infrastructure, and low technology adoption. However, the future of agriculture in Karnataka and India is not necessarily bleak. With the right efforts, the sector can hopefully undergo a sustainable and lasting transformation.
- According to **Dr D Devaraj** (2022), in his article "Performance and growth of Agriculture sector in Karnataka: trend analysis", examines the growth and performance of Karnataka's agricultural sector, the objectives were to study the growth and performance of India's and Karnataka's agricultural sectors, analyze production and productivity growth trends in Karnataka's agricultural sector, and examine the district-wise area and production data for Karnataka's major crops. The article concludes that enhancing productivity through best practices, ensuring quality inputs and services for intensive production, and strengthening cluster competitiveness are key. Agriculture is the main livelihood for most Karnatakans, with largely informal, rural, non-industrial employment. Karnataka's agricultural GSVA growth rate fell from 14.2% in 2017-18 to -4.8% in 2018-19 due to a drop in food grain production from 144 million tons in 2017-18 to an expected 100 million tons in 2018-19, resulting from droughts impacting 100 Taluks in the kharif season and 156 Taluks in the rabi season. The composition of agriculture and allied activities, as well as industry, slightly decreased in Karnataka's GSDP from 11.67% and 22.45% in 2017-18 to 10.11% and 22.01% in 2018-19, respectively. Meanwhile, services slightly increased from 65.88% to 67.87%.

Conceptual framework

Organic farming: Organic farming is a method of agricultural production that excludes the use of synthetic substances, such as pesticides, synthetic medicines or fertilizers, and genetically modified organisms.

Precision farming: Precision agriculture uses information technology (IT) to ensure that crops and soil receive exactly what they need for optimum health and productivity. This also ensures profitability, sustainability, and protection of the environment.

No-till farming: No-till farming is an agricultural technique for growing crops or pastures without disturbing the soil through tillage. No-till farming decreases the amount of soil erosion tillage causes in certain soils, especially in sandy and dry soils on sloping terrain.

Intercropping: Intercropping is a multiple-cropping practice that involves the cultivation of two or more crops simultaneously on the same field, a form of polyculture. The most common goal of intercropping is

to produce a greater yield on a given piece of land by making use of resources or ecological processes that would otherwise not be utilized by a single crop.

Crop rotation: Crop rotation is the practice of growing a series of different types of crops in the same area across a sequence of growing seasons. This practice reduces the reliance of crops on one set of nutrients, pest, and weed pressure, along with the probability of developing resistant pests and weeds.

Hydroponics: Hydroponics is the technique of growing plants using a water-based nutrient solution rather than soil and can include an aggregate substrate, or growing media, such as vermiculite, coconut coir, or perlite. Hydroponic production systems are used by small farmers, hobbyists, and commercial enterprises.

Agroforestry: Agroforestry (or agro-sylviculture) is a land use management system in which combinations of trees are grown around or among crops or pastures. Agroforestry combines agricultural and forestry technologies to create more diverse, productive, profitable, healthy, and sustainable land-use systems. Benefits include increasing farm profitability, reduced soil erosion, creating wildlife habitat, managing animal waste, increased biodiversity, improved soil structure, and carbon sequestration.

Greenhouse farming: Greenhouse farming is the unique farm practice of growing crops within sheltered structures covered by a transparent, or partially transparent, material. The main purpose of greenhouses is to provide favourable growing conditions and to protect crops from unfavourable weather and various pests.

Aquaponics: Aquaponics is a cooperation between plants and fish and the term originates from the two words aquaculture and hydroponics. Aquaponic systems come in various sizes from small indoor units to large commercial units.

Vertical farming: Vertical farming is the practice of growing crops in vertically stacked layers. It often incorporates controlled-environment agriculture, which aims to optimize plant growth, and soilless farming techniques such as hydroponics, aquaponics, and aeroponics. Some common choices of structures to house vertical farming systems include buildings, shipping containers, underground tunnels, and abandoned mine shafts.

Traditional farming methods: Traditional agriculture is a primitive type of food production and farming that makes extensive use of indigenous knowledge, land use, traditional equipment, natural resources, organic fertilizer, and farmers' cultural value.

Statement of the problem

Dakshina Kannada, a seaside district in Karnataka, possesses a diverse landscape comprising evergreen forests, mangroves, and farmlands. With over 2 million inhabitants, the district heavily relies on farming. Major crops grown here include rice, areca nut, coconut, cashew nut, rubber, and vegetables. Agriculture serves as the economic backbone, providing livelihoods and ensuring food security. It generates employment opportunities, supports environmental stewardship, and preserves cultural heritage. Traditional practices and festivals revolve around farming cycles, making agriculture not just an economic activity but also an integral part of life in Dakshina Kannada. India, exemplifies the agricultural challenges faced by countless rural communities across the country. Here, the very way of life depends on the success of farming and cattle-rearing pursuits. However, this traditional reliance on the land is increasingly strained by multiple factors.

Firstly, farmers are the backbone of our food security. They work tirelessly to grow crops and raise livestock that nourish communities globally. Understanding their difficulties allows us to develop solutions that ensure a stable and sustainable food supply for future generations. Secondly, agriculture plays a vital role in the health of our economies, especially in rural areas. When farmers struggle, the

economic well-being of entire communities suffers. By examining their problems, we can design policies and initiatives that support agricultural growth and build a thriving rural economy. The problems faced by farmers are often interconnected with broader environmental issues. Water scarcity, climate change, and unsustainable land management practices all significantly impact agricultural productivity. Studying these challenges allows us to develop comprehensive solutions that address the needs of farmers while also protecting our environment. With consideration of the above, an attempt is made to analyze "Dimensions of Agricultural Farmer's Problems" – A Study with reference to Dakshina Kannada District.

Major Finding of the study

1. The age distribution of the respondents reveals a youthful skew with substantial contributions from middle-aged and senior participants. This demographic spread allows for a comprehensive analysis of different age groups' perspectives within the survey, although the dominance of the younger age group might highlight issues or preferences pertinent to that demographic. Future surveys could aim for a more evenly distributed sample to ensure even broader representation across all age groups.
2. The distribution of respondents by taluk shows a varied geographical representation with a notable emphasis on Bantwal, Puttur, and Sullya. While Bantwal's dominance may influence the overall findings, the significant contributions from other taluks ensure that the survey captures a wide range of perspectives. Future surveys could aim for a more balanced geographical distribution to avoid overrepresentation and ensure an even broader understanding of all areas.
3. The distribution of respondents by marital status shows a predominant representation of married individuals, which is likely to influence the survey findings towards family-oriented and marital life perspectives. However, the substantial minority of single respondents ensures that their viewpoints are also well-represented, adding diversity to the survey outcomes. Future surveys could aim for a more balanced distribution to ensure a broader understanding of both married and single individuals' perspectives.
4. The distribution of respondents by highest education qualification shows a diverse educational background, with a notable skew towards lower and moderate education levels. While a significant portion of the respondents has less than SSLC, there is also a substantial representation of graduates and individuals with higher education. This diversity in educational qualifications provides a broad understanding of the population's perspectives, influenced by varying levels of formal education. Future surveys could aim for a more balanced representation across educational levels to ensure an even more comprehensive understanding of the population's educational impact on their views and experiences.
5. The distribution of respondents by years of experience in agriculture reveals a diverse range of expertise, from newer entrants to highly experienced veterans. The largest group consists of those with less than 15 years of experience, indicating a significant presence of newer practitioners who may be more inclined towards innovative practices. The balanced representation of middle and long-term experienced individuals ensures that traditional knowledge and historical perspectives are also well-represented in the survey. This diverse experience distribution provides a comprehensive understanding of agricultural practices, challenges, and trends from multiple vantage points. Future surveys could aim for a similar balance to maintain the breadth of perspectives across different experience levels.
6. The distribution of respondents by the number of family members reveals that the majority belong to nuclear families with 2 to 4 members. This predominance is likely to influence the survey results

to reflect issues and priorities pertinent to smaller family units. However, the substantial representation of larger families ensures that their unique perspectives and challenges are also considered. This diversity in family sizes provides a well-rounded understanding of household dynamics within the surveyed population. Future surveys could maintain this balance to ensure comprehensive insights across different family structures.

7. The distribution of respondents by reasons for entry into agriculture shows a strong hereditary influence, with a significant number also choosing agriculture independently. The impact of external factors like the COVID-19 pandemic and government support further diversifies the motivations for entering the agricultural sector. This diversity in entry reasons provides a comprehensive understanding of the various factors influencing agricultural careers, reflecting both traditional continuity and modern shifts in motivations. Future strategies to support agricultural development could consider these diverse motivations to tailor programs and initiatives effectively.
8. The distribution of respondents based on their dependence on agriculture provides insights into the reliance on agricultural activities for livelihood and economic stability. A majority of respondents (54.44%) are dependent on agriculture. This indicates that more than half of the surveyed population relies on agriculture as their primary source of income and livelihood. This dependence suggests that agricultural activities are crucial for their economic stability and daily sustenance. A substantial portion of respondents (45.56%) are not dependent on agriculture. This group represents individuals who either have alternative sources of income or consider agriculture as a secondary activity. Their economic stability is not solely tied to agricultural productivity, which might influence their perspectives on agricultural issues differently.
9. The data highlights a significant dependence on agriculture among the respondents, indicating the need for substantial support and development within the agricultural sector. However, the presence of respondents in other professions and the private sector shows potential for economic diversification. To improve economic resilience and overall livelihoods, a dual approach focusing on enhancing agricultural productivity and promoting diversification into other professions is essential. This would involve targeted interventions in education, skill development, and private sector support, ultimately leading to a more balanced and robust economic structure.
10. The data highlights a critical need for economic upliftment in the agricultural sector, with a strong emphasis on supporting the majority who are earning less than Rs. 75,000 annually. By addressing the underlying issues and providing targeted support, it is possible to improve the income distribution among agricultural workers, thereby enhancing their livelihoods and contributing to the overall economic development of the region.
11. The data reveals a rich tapestry of agricultural activity with a heavy focus on areca nut, coconut, banana, and paddy cultivation. This indicates a need for targeted agricultural support in these areas to maximize productivity and profitability. Additionally, the presence of a variety of other crops highlights the importance of maintaining crop diversity to bolster economic resilience and sustainability. Supporting these farmers through improved agricultural practices, market access, and sustainable farming techniques will be crucial for the continued prosperity of the agricultural sector.
12. The data reflects a diverse range of farming techniques among the respondents, with a strong presence of traditional methods alongside significant adoption of organic and sustainable practices. There is also an emerging trend towards modern farming techniques, indicating a gradual shift towards innovation in agriculture. By supporting both traditional and modern methods, and

promoting sustainable practices, it is possible to enhance agricultural productivity, sustainability, and resilience. This dual approach will help in addressing the current challenges in agriculture while paving the way for a more sustainable future.

13. The data indicates a high level of awareness of climate variability among the respondents, with the majority acknowledging its occurrence. However, a notable portion remains uncertain, pointing to the need for increased education and awareness efforts. Addressing the observed climate variability through targeted adaptation and mitigation strategies, supported by informed policies and community engagement, is crucial for enhancing the resilience of the agricultural sector. By focusing on these areas, it is possible to better prepare farmers for the challenges posed by climate change, ensuring sustainable agricultural practices and improved livelihoods.
14. Overall, the data suggest that issues related to infrastructure, government support, market access, and land tenure are the most pressing socio-economic challenges for farmers. Addressing these could potentially alleviate a significant portion of the difficulties faced in the agricultural sector.
15. In summary, addressing the multifaceted challenges faced by agricultural farmers requires a comprehensive approach that considers economic, environmental, social, and technological factors, along with adequate policy support and infrastructure development.
16. The challenges with the highest perceived impact (most ratings of 10) are: Climate variability (37 respondents), unusual rain (41 respondents) and decrease in soil fertility (36 respondents). These areas are critical pain points that significantly impact farming activities. Conversely, challenges such as Inadequate transport, Scarcity of capital, and Inadequate water supply also show significant impact but with a slightly more varied distribution of responses. Overall, the data suggest that climate-related issues (variability, unusual rain), soil fertility, and pest-related concerns are the most pressing challenges for agriculturists. Addressing these could potentially alleviate a significant portion of the difficulties faced in the agricultural sector.
17. The remedies with the highest perceived effectiveness (most ratings of 10) are: Better water management (42 respondents), Efficient market for agricultural produce (41 respondents), providing credit facility (40 respondents), Microfinance (43 respondents) and providing good infrastructure facilities (39 respondents). These areas are critical solutions that are perceived to effectively address the challenges faced by agriculturists. Conversely, remedies such as Utilizing digital platforms for relevant information and Training programs on modern machinery use show moderate effectiveness but with a more varied distribution of responses. The study data suggest that a combination of financial support, infrastructure development, water management, and market efficiency are the most effective remedies for alleviating challenges in agriculture. Implementing these measures could significantly improve the agricultural sector's resilience and productivity.
18. The data highlights a significant trend of migration of family members to urban areas among the surveyed population. This migration pattern could signify both opportunities and challenges for the individuals and families involved, as well as for the communities they leave behind and the urban areas they move into. Understanding the underlying reasons driving this migration trend is crucial for policymakers and stakeholders to develop appropriate strategies to address the needs and concerns of both rural and urban populations. Additionally, further research may be warranted to explore the socio-economic implications of this migration trend in greater detail.
19. The analysis reveals that migration to urban areas is primarily driven by economic, social, and personal factors such as employment opportunities, higher education prospects, improved quality of

life, and family reasons. These findings underscore the complex interplay of various motivations behind migration decisions. Policymakers and stakeholders need to consider these factors when formulating strategies to address the needs and challenges associated with urban migration. Additionally, further research may be needed to explore the nuanced motivations behind migration in greater detail.

20. The analysis reveals a range of impacts of family migration to urban areas on farming operations among the surveyed population. While some respondents reported minimal or no impact, a significant portion indicated moderate to very significant impacts. This suggests that urban migration can have diverse effects on farming activities, potentially influencing agricultural productivity, labour availability, and resource management. Understanding these impacts is crucial for policymakers, agricultural planners, and rural development agencies to address the challenges faced by farming communities affected by urban migration. Strategies may need to be devised to support farmers in adapting to changes in labour dynamics, land use patterns, and market access resulting from family migration to urban areas. Additionally, further research could explore the specific mechanisms through which urban migration affects farming operations and identify targeted interventions to mitigate negative impacts and leverage potential opportunities.

Suggestions and Recommendations

Based on the major findings, here are some major suggestion and recommendations:

- ❖ Diverse Representation in Surveys: Future surveys should aim for a more diverse representation across age groups, geographical locations, marital status, educational qualifications, and years of experience in agriculture. This will provide a more comprehensive understanding of the challenges and perspectives within the agricultural community.
- ❖ Balanced Geographical Distribution: Efforts should be made to ensure a balanced geographical distribution of respondents in surveys to avoid overrepresentation of certain areas. This will provide a more holistic view of the agricultural landscape and ensure that the needs and challenges of all regions are adequately captured.
- ❖ Inclusive Marital Status Representation: Surveys should strive for a more balanced distribution of respondents by marital status to capture a broader range of perspectives, including those of both married and single individuals. This will ensure that the survey findings reflect the diversity of experiences within the agricultural community.
- ❖ Balanced Educational Representation: Future surveys should aim for a more balanced representation across educational levels to ensure a comprehensive understanding of how education impacts views and experiences in agriculture. This will help tailor educational programs and initiatives effectively to meet the needs of all farmers.
- ❖ Maintain Experience Diversity: Efforts should be made to maintain a diverse range of experience levels among respondents in surveys to capture traditional knowledge as well as innovative practices. This will provide a well-rounded understanding of agricultural practices, challenges, and trends.
- ❖ Consider Family Size Dynamics: Surveys should continue to maintain a balance in the representation of different family sizes to ensure comprehensive insights into household dynamics within the surveyed population.
- ❖ Understanding Motivations for Entry into Agriculture: Policymakers should consider the diverse motivations for entering agriculture when designing support programs and initiatives. This will help

tailor interventions effectively to meet the needs of farmers with varying backgrounds and aspirations.

- ❖ Support Agricultural Dependence and Diversification: Efforts should be made to support agricultural development while also promoting economic diversification into other professions. This dual approach will help improve economic resilience and overall livelihoods within the agricultural community.
- ❖ Targeted Support for Income Upliftment: Policies and programs should target the majority of farmers who are earning less than Rs. 75,000 annually to improve income distribution and enhance livelihoods.
- ❖ Targeted Agricultural Support: Targeted agricultural support should be provided to farmers focusing on areca nut, coconut, banana, paddy cultivation, and other crops with high economic potential. This will help maximize productivity and profitability in these areas.
- ❖ Promote Sustainable Farming Practices: Efforts should be made to promote both traditional and modern farming techniques, including organic and sustainable practices. This will help enhance agricultural productivity, sustainability, and resilience.
- ❖ Enhanced Climate Resilience: Policies and programs should focus on addressing climate-related challenges such as variability, unusual rain patterns, and soil fertility issues through targeted adaptation and mitigation strategies.
- ❖ Invest in Water Management: Priority should be given to improving water management practices to ensure reliable water supply for agricultural activities, thereby enhancing productivity and resilience.
- ❖ Infrastructure Development and Market Access: Investments should be made in infrastructure development and ensuring efficient market access for agricultural produce to support agricultural growth and development.
- ❖ Utilize Effective Remedies: Policymakers should prioritize implementing effective remedies such as better water management, efficient markets, financial support mechanisms, and infrastructure facilities to address agricultural challenges effectively.
- ❖ Understand Urban Migration Impacts: Further research is needed to understand the impacts of urban migration on farming operations and develop targeted interventions to mitigate negative impacts and leverage potential opportunities.

Overall, adopting these suggestions will contribute to addressing the multifaceted challenges faced by agricultural farmers and ensuring sustainable agricultural development.

Conclusion

In conclusion, the findings of the report underscore the importance of adopting a comprehensive and inclusive approach to address the diverse challenges faced by agricultural farmers. By ensuring diverse representation in surveys across various demographic factors such as age, geographical location, marital status, educational qualifications, and years of experience in agriculture, policymakers and stakeholders can gain a more nuanced understanding of the agricultural landscape. Efforts should be directed towards promoting balanced geographical distribution in surveys to capture the unique needs and challenges of different regions. Additionally, understanding the motivations for entry into agriculture and supporting both agricultural dependence and diversification are essential for enhancing economic resilience and livelihoods within the agricultural community. Targeted support should be provided to uplift incomes, promote sustainable farming practices, enhance climate resilience, improve water management, and

develop infrastructure and market access. By utilizing effective remedies and conducting further research to understand the impacts of urban migration on farming operations, policymakers can develop targeted interventions to address challenges and leverage opportunities for sustainable agricultural development. In essence, addressing the multifaceted challenges faced by agricultural farmers requires a collaborative effort from policymakers, stakeholders, and the agricultural community. By implementing the suggestions outlined in this report, it is possible to foster a more resilient, productive, and sustainable agricultural sector that contributes to the overall socio-economic development of the region.

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