

## **New studies on Kerala**

Young Scholars' Forum, GIFT

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### **Economics**

#### **Scopus Indexed**

1. Ayswer A.S, Dr. N Ramasamy, Dr. M Dev Anand, Dr. N Santhi (2023). ANALYSIS OF PERFORMANCE INDICATORS IN MINING INDUSTRY USING INTERPRETIVE STRUCTURAL MODELLING APPROACH

The study aimed to assess the various factors affecting the success of women's entrepreneurship and various strengths gained based on the operation of Government EDPs in Kerala. The study is an empirical study and it was conducted to establish the primary aspects that are influencing the success rates of women entrepreneurs when they are managing their firms.

The usage of Cochran Sample size formula was used to estimate the sample size for the study. The study consisted of 6,965 women entrepreneurs operating in North Kerala. The sample size was evaluated based on the dependability of the data-collecting equipment led to the determination that the optimal size of the sample should be 231. The sample size was selected based on the usage random sampling technique among which stratified random sampling was used based on the nature of the population involving women entrepreneurs in the study area. The exploratory factor analysis using the SPSS–20 was performed to extract the diverse factors that are affecting women entrepreneurship in the study area of Kerala.

2. B. Pratheep Kumar & V. Emayavaramban (2023). ANALYZING THE URBAN SPRAWL-FORM AND CHARACTERISTICS: A CASE STUDY OF THIRUVANANTHAPURAM, KERALA, INDIA

Urban sprawl, characterized by unorganized, irregular built-up development encircling cities, poses a grave peril to natural resources and disrupts the delicate ecological equilibrium. Hence, comprehending and dissecting the spatial dynamics of urban expansion assumes critical significance for fostering effective and sustainable urban planning practices. Employing fractal dimension, Shannon's entropy, and classified built-up maps for the years 2000, 2011, and 2021, this study is dedicated to scrutinizing the fractal attributes of urban structures and the sprawling nature prevalent in Thiruvananthapuram city, situated in the state of Kerala, India. The findings of the study reveal that dispersed settlement growth is notably concentrated towards the northern and northwestern fringes of the city, exerting substantial stress on the existing natural environment. The progressively widening gap between the textural and structural fractal dimensions serves as a stark indicator of impending threats to the sustainability of urban development. The study also establishes that the year 2011 stands as a pivotal milestone, distinguished by an optimal urban composition within the evolutionary trajectory of the city.

3. Sathya Prakash. P, Dr. Sinitha Xavier (2023). FINANCIAL DEPENDENCE OF RURAL ELDERLY IN KERALA

This article exposes the financial vulnerability of the rural elderly, focusing on their dependence and sources of financial support. Utilizing a One-sample t-test, the research identifies significant sources of financial dependence. Independent t-tests and One-way ANOVA are employed to analyze the level of dependence based on individual characteristics. The study, conducted in rural areas of Kerala, reveals that elderly women (28.38%) depend more on others than elderly men (13.8%) for financial needs. Overall, 61.34% of the rural population in Kerala is financially dependent. Notably, offspring or progeny emerge as the primary source of financial support for the rural elderly, with elderly women, care-giving elderly, and widowed elderly displaying higher dependence on others for financial aid.

4. U. R. Arya (2023). UNPAID LABOR OF OLDER PERSONS AND THEIR SUBJECTIVE WELL-BEING: A STUDY BASED ON KERALA, INDIA

This study delves into the often-overlooked contribution of older individuals engaged in various forms of unpaid labour, which, despite benefiting both the household and the individuals themselves, goes unnoticed in national income calculations. Using data from BKPAI and case studies, the research explores how the intensity of involvement in unpaid labour influences the subjective well-being of older individuals. The study finds that highly intense participants in unpaid labour are more likely to experience high levels of subjective well-being, regardless of variations in the forms of unpaid labour. Additionally, contextual factors play a role in shaping the impact of unpaid labour on subjective well-being. The study also highlights the relative effectiveness of voluntary activities in promoting high subjective well-being and mitigating low levels of the same.

5. Deepthi Nair H V, Dr. V. Maheswari (2023) PROBLEMS AND PROSPECTS OF RURAL SMALL-SCALE ENTREPRENEURS IN KERALA

Kerala, with its diverse economic landscape, hosts a substantial population of rural small-scale entrepreneurs, operating in sectors such as coconut-based industries, coir industry, khadi production, food processing, agro-based industry, and software services. Understanding their challenges is vital for fostering economic growth, generating employment, and mitigating urban-rural disparities. This study focuses on the challenges and opportunities faced by rural small-scale entrepreneurs in the diverse economic landscape of Kerala. Six primary objectives guide this study, addressing areas such as access to finance, infrastructure deficiencies, market dynamics, labour availability, regulatory constraints, and socio-cultural influences. Through a mixed-methods approach, including quantitative surveys and qualitative interviews, the study collects data from a representative sample of 300 rural entrepreneurs in Kerala, drawn from various sectors, regions, and business sizes.

**Other Journals**

1. Aswathy N. and Najmudeen T. M. (2023). SOCIO-ECONOMIC IMPACT OF COVID-19 PANDEMIC ON SMALL-SCALE FISHER HOUSEHOLDS IN KERALA STATE

The COVID-19 pandemic caused devastating and far-reaching impacts on the economic construct of several countries. The fisheries sector in India was impacted by the nationwide lockdown causing severe disruptions in fishing and marketing activities. In this context, an analysis of the socio-economic impact of the pandemic on small-scale fisher (SSF)

households in Kerala was done. The fishery income, employment, household consumption, and indebtedness of the small-scale fishers during the pre-and post-pandemic period were analysed based on the data collected from small-scale fisher households in Alappuzha, Ernakulam, and Malappuram Districts. The information on access to relief and support measures and alternate livelihood sources was also collected to assess the economic security of the fisher households. The study was conducted during the pandemic years 2020 and 2021 in the selected coastal districts in Kerala state.

2. Dr. Ajad Singh, Ansh Shokeen, Saubhagya Sharma, Abhimanyu K, Indra Dev Yadav, Aniket Singh Karnawat. (2023). HUMAN DEVELOPMENT PROGRESS IN KERALA AFTER ECONOMIC REFORMS OF 1991

This study explores the multifaceted dimensions of human development in Kerala, India, post-liberalization (1993-94 to 2020-21). Notably, Kerala's robust economic growth in 2021-22 (12.01% GSDP growth) prompts an in-depth analysis of its impact on living standards. Beyond economic indicators, the study assesses agriculture, services, infrastructure, and social welfare initiatives, presenting a holistic view of progress. Positive trends in per capita income, life expectancy, and education underscore Kerala's commitment to holistic development. Human Development Index (HDI) trends confirm a balanced approach, reflecting economic growth, healthcare improvements, and educational advancements. Policy recommendations focus on sustained investment in education, healthcare, economic diversification, monitoring and evaluation, sustainable practices, research, data collection, community engagement, and international collaboration. If prioritized, these recommendations can solidify Kerala as a model for comprehensive and sustainable human development.

3. V. K. Parvathy & Jyothi Kumar (2023). CONVERGENCE OF COMMUNITY NETWORK AND SUSTAINABLE DEVELOPMENT GOALS, KUDUMBASHREE COMMUNITY NETWORK

Sustainable development goals (SDGs) are the set of seventeen goals announced by the United Nations General Assembly in 2015 to attain a sustainable and better future for its member nations by 2030. In the Indian scenario, as per the SDG India Index 2019 and 2020, the state of Kerala has secured the first rank in progressing towards these SDGs. This study attempts to analyze the various SDGs and their attainment, and whilst examining for this

purpose, the largest women's network in Asia – Kudumbashree from the state of Kerala, India is considered. This chapter aims to study the various initiatives under this community network, their innovation and impact, and the reach of these activities to the different sections of society, and identify the scope of converging SDG 2030 with the Kudumbashree model development. The structure, scope, and strategies of this model can be further redirected towards the efforts to attain the SDGs by 2030. This can be used as a guiding factor for other Indian states to improve their performance.

#### 4. Rasmi, P.; Ramya, K. (2023) INFLUENCE OF FAMILY INVOLVEMENT TOWARDS FINANCIAL ACCESS IN MSMES -- A PERSPECTIVE.

The MSME sector globally significantly contributes to national economic development by fostering employment, new business ventures, and bolstering GDP. The research underscores the persistent vulnerability of MSMEs to risks, with financial sustainability emerging as a pivotal dimension. Financial viability hinges on MSMEs' capacity for self-reliant operations and profit generation. Access to timely financial resources is critical for sustaining and advancing Micro, Small, and Medium Enterprises (MSMEs), playing a vital role in entrepreneurial development and overall economic growth. This study specifically investigates the impact of family involvement on financial access in MSMEs, recognizing the crucial role of familial support for business success. Family contributions are identified as catalysts propelling entrepreneurial initiatives to higher levels. The research, conducted with 80 MSMEs in various sectors in Kerala, collected data directly from entrepreneurs. The conceptual framework, developed for this study, underwent validation using the Structured Equation Model (SEM) and analysis via AMOS. Data analysis employed SPSS version 23.0 software. Results indicate that MSMEs operating under predominant family influence demonstrate heightened productivity, competitiveness, and innovation, coupled with robust financial accessibility (Cronbach's score of 0.281). These MSMEs exhibit a harmonious blend of perfect business sustainability and financial stability. Notably, family-influenced firms outperform their non-family counterparts. In summary, this study underscores the pivotal role of family involvement in enhancing financial accessibility and contributing significantly to the success of MSMEs in Kerala.

5. Kavitha A C and Parvathy P, (2023). CHANGING CONTOURS OF THE EMPLOYMENT LANDSCAPE: A STUDY ON GIG WORK OPTIONS FOR THE PLATFORM WORKFORCE OF KERALA

The article is an attempt to examine the extent to which the emergence of platform work options has offered succour to the workforce of Kerala hit hard by the dearth of employment opportunities owing to the pandemic-induced economic crisis. A survey of 55 respondents across the state reveals that Kerala's workforce is engaged in diverse types of platform work that can be classified into web-based and location-based works. Platform work is a preferred job option for the young workforce as the mean age of the surveyed is 27.45 years. Though platform work is opted for by all irrespective of educational level, those with higher educational qualifications were engaged in web-based work. Gender bias in favor of women is found in web-based work, while location-based jobs happen to be a male dominion. Though platform workers value independence in work, flexible work schedules, etc., associated with gig work, most of them have expressed their desire to have a regular job with stable incomes as the mean income of the respondents was moderate at ₹17,609. Reckoning the rise in platform job options, the policy thrust must be on promoting remunerative web-based work coupled with protecting the interests of the overworked location-based workers.

6. Krishna, Swathy; V., Shacheendran (2023). FACTORS INFLUENCING CONSUMERS' COMPLIANCE INTENTION TOWARDS CONSUMPTION TAX: AN ANALYSIS BASED ON THEORY OF PLANNED BEHAVIOR.

Tax compliance is a significant means of ensuring better revenue performance. Many studies have adopted the Theory of Planned Behaviour (TPB) to investigate the factors influencing taxpayers' compliance intention, but there exists limited literature on consumers' compliance intention toward consumption taxes. Hence, this study seeks to analyse the influence of attitude, subjective norm, perceived behavioural control, and moral obligation on consumers' compliance intention. The study used data collected from 186 consumers from Kerala state through an online survey. The result of the PLS-SEM analysis revealed a significant influence of the selected variables on the consumers' compliance intention towards consumption taxes, which underscores the need for government officials to provide due consideration to improving consumer perception to bring down the tax gap existing in the economy.

7. Sannet Thomas and Manoj Kumar Pandey (2023). ENTREPRENEURSHIP AMONG TRIBAL COMMUNITIES IN KERALA: OPPORTUNITIES AND CHALLENGES

Entrepreneurship is the enormous strength and human spirit that enabled the world's biggest geographical discoveries. Entrepreneurship is a crucial activity for bringing about changes in the economics and society of a country, as well as other countries around the world. Since time immemorial, Indian tribes, often known as aboriginal communities or 'Adivasi', have lived in forests. Tribes are often the last to benefit from development because they are one of society's most marginalized groups. They are constantly on the search for better work to maintain a steady income and make ends meet. (Sivakumar R., 2021). Many tribal entrepreneurs are constantly changing the profile of tribal areas through development. They are now establishing self-sustaining businesses. The purpose of this article is to examine the state of entrepreneurial development among Kerala's tribals using primary and secondary sources. The information was gathered through the use of newspapers, Semi-structured interviews (N=40) and interactions with native communities. Entrepreneurial education and a focused area approach, together with effective government policy, are shown to be essential for the tribal population in Kerala to create more local jobs.

8. Saleel Ahammed A. K. and Ibrahim Cholakkal b (2023). EXPLORING THE IMPACT OF HOUSEHOLD SPENDING PATTERNS ON EDUCATION OUTCOMES AMONG RESIDENTS IN MALAPPURAM DISTRICT, KERALA, INDIA

This study explores the connections between household expenditure patterns and education status, focusing on 386 households in Malappuram district from December 2021 to September 2022. Malappuram, situated in Kerala, India, is notable for its cultural, historical, and demographic features. Utilizing statistical tools like Correlation, multiple regression, ANOVA, and chi-square, the research quantifies these relationships. Key findings emphasize the prioritization of food and education in household budgets, with a strong link between education level and marital status reflecting societal norms. The study reveals the financial implications of educational achievement in mitigating economic inequality and underscores the positive correlation between total expenditure and education. Regression analysis highlights the impact of food and medical expenses on educational status. In the context of Malappuram district, these insights offer valuable information for policymakers and programs aiming to simultaneously enhance economic prosperity and educational attainment.

9. Dr. V. Dheenadhayalan, Sandeep. A (2023) STRATEGIES AND CHALLENGES IN TEXTILE RETAIL TRADING: A COMPREHENSIVE ANALYSIS OF CONSUMER BEHAVIOR IN THE POST-COVID ERA IN KERALA

This study presents a detailed examination of post-COVID dynamics within Kerala's textile retail sector in India. Focusing on understanding how industry players have responded strategically and technologically in response to pandemic-induced disruptions, this research investigates key areas like marketing, supply chain, and technological responses. Study findings emphasize the ever-evolving landscape of consumer behaviour, showing a rise in online shopping as well as preferences for products emphasizing comfort and sustainability. Aligning with Kerala's unique cultural and economic circumstances, this research seeks to unveil retailers' adaptation strategies in response to pandemic. Examining the obstacles confronted by industry, this research offers invaluable insight for both academia and practitioners of this sector. Utilizing global and regional perspectives, this research adds to retail management by exploring Kerala textile market post-COVID with a specific emphasis on Kerala textile market. Our ultimate goal is to provide actionable insights that can assist decision-makers in understanding the post-pandemic retail landscape in Kerala.

10. KP Nabeel, Biya Ann Joseph, PT Suraj, VL Gleeja and Joseph Mathew (2023). SOCIO-ECONOMIC STATUS OF SELECTED DAIRY FARMERS IN THRISSUR DISTRICT OF KERALA

A comprehensive investigation into the socio-economic status of cattle farmers in Thrissur district involved the selection of twenty-five cattle farms, each with a minimum of ten crossbred cattle. Data analysis revealed that the mean average age of these farmers was 43.83 years, with the majority falling within the middle-age category. Men dominated this profession, accounting for 72% of the participants. In terms of educational background, 48% had completed primary school. Interestingly, dairying served as a subsidiary occupation for 92% of the farmers. The average herd size in these selected dairy farms was 12.08 animals. The farmers typically utilized their land for constructing farms and cultivating fodder, with a mean average of 4.14 cents and 16.52 acres, respectively. Additionally, approximately 40% of dairy farmers employed milking machines for the milking process.



11. Vijayakumar v, Dr. D. Karthikeyan (2023) CONTRIBUTION OF START-UPS AND ITS PARTICIPATION IN ENTREPRENEUR ADVANCEMENT IN YOUNG GRADUATES OF KERALA STATE

To commercialize a novel concept, individuals leverage their professional expertise by establishing an enterprise—a process known as entrepreneurship. This involves the integration of financial resources, technology, and human skills to execute projects effectively with manageable risks. As entrepreneurship is fundamentally an economic function involving the initiation and management of a business, innovation plays a key role in introducing fresh, improved, or unconventional ideas. Start-ups, newly formed companies responding to market demand, aim for rapid expansion by addressing specific market needs.

This study aims to assess the contribution of start-ups to entrepreneurial development in Kerala State. Organizations like the District Industries Centre (DIC) and Micro Small and Medium Enterprises Development Institute (MSME-DI) play a role in fostering technology-based entrepreneurship and providing the necessary environments and infrastructure for high-tech businesses. In Kerala, initiatives at the school level, such as entrepreneurial clubs, encourage the development of entrepreneurial skills among children. Additionally, colleges are designed to nurture innovators and entrepreneurs, facilitating adaptation to emerging technologies.

12. Dr. Neeraja James, Dr. Manoj p. K (2023) E-GOVERNANCE IN KERALA- THE FIRST FULLY E-GOVERNED STATE IN INDIA

The paper makes a closer look into the e-governance initiatives in Kerala - the State which has recently been declared as the first fully e-governed State in India. Based on an analysis of the recent developments in Kerala in the Information Technology (IT) front especially in e-Governance, the paper makes suggestions for the faster growth of the State through effective e-Governance adoption.

## **Environment**

### **Scopus Indexed**

1. Balamurali Krishna, V. Sivanandan Achari, (2023). GROUNDWATER FOR DRINKING AND INDUSTRIAL PURPOSES: A STUDY OF WATER STABILITY AND HUMAN HEALTH RISK ASSESSMENT FROM THE BLACK SAND MINERAL-RICH COASTAL REGION OF KERALA, INDIA

This study conducts a comprehensive temporal-spatial analysis of groundwater quality in the black sand mineral-rich coastal village of Alappad, Kollam, Kerala, India. The research evaluates the suitability of groundwater for drinking and industrial purposes, emphasizing economic engineering considerations. The study examines hydro geochemistry, seasonal variations, and geochemical interactions in an aquifer with placer deposits and alluvial soil-saline water-freshwater interactions. Various parameters, including health risk assessment and indices such as Langelier saturation, Ryznar stability, Aggressive index, Larson-Skold index, and Puckorius scaling, are utilized to assess groundwater quality for human health and industrial use. Chemical weathering and evaporation processes are identified as key factors influencing hydrochemistry. The Nemerow pollution index indicates moderate pollution levels for certain ions, and the Langelier saturation index suggests non-corrosive water in specific seasons. The study underscores the importance of understanding the complex coastal system, especially in the context of rare earth exploration that could impact the coastal hydrosphere. The findings contribute valuable insights for sustainable development, offering a comprehensive overview of groundwater quality for future planning and human well-being, considering quality criteria, corrosion proneness, water stability, and health risk factors.

### **Other Journals**

1. BASHEER K.S and Dr. RUPA GUNASEELAN, (2023). PERCEPTIONAL COMMUNITY AND INSTITUTIONAL IMPACT OF FLOOD – A STUDY ON KERALA FLOODS

The earth's climate has changed drastically over time. Climate change was caused by natural and manmade factors. Kerala is an Indian tourist hotspot. August 2018 was one of the state's worst monsoons. More than a million people have been displaced by Kerala's relentless monsoon rains. This study evaluates the communal and institutional impact of the Kerala

flood. This study focuses on community vulnerability and resilience. Floods threaten most homes. It's crucial to examine their perceived vulnerability for present and future planning. Data was collected through key informant interviews, field surveys, and household questionnaires. The study proposes incorporating community coping methods and preferences into public awareness campaigns, early warning systems, and disaster management measures. Whatever it is, we must understand why. Climate change and natural disasters will affect water, air, agriculture, infrastructure, health, education, biodiversity, forests, and socioeconomic sectors. Natural disasters can't be stopped, but we can lessen their impact. It's crucial to learn from such situations to reduce their impact.

## 2. Baker Matovu, Floor Brouwer, Raimund Bleischwitz, Firas Aljanabi, Meltem Alkoyak-Yildiz (2023) RESOURCE NEXUS PERSPECTIVES IN THE BLUE ECONOMY OF INDIA: THE CASE OF SAND MINING IN KERALA

Since the 2000 the demand for sand has proliferated at the coastal-land interface to fill up the increasing demand straining Blue Economy (BE) activities and provision of water-energy-food resources. Recent studies have revealed that increased sand mining in both coastal and freshwater zones has continued to impact livelihood-ecological systems threatening the provision of livelihood goods and services. These impacts are exacerbated by a lack of comprehensive frameworks to regulate sand mining and trade; creating the need to develop micro and macro-frameworks and guidelines for sustainable sand mining. This paper uses a non-systematic literature review approach to build on this gap to develop an understanding of the resource nexus perspectives and trade-offs due to sand mining. The paper proposes a novel framework based on the Ecosystem Service Assessment advanced from the review of the literature to guide risk assessments toward more sustainable sand mining. To add evidence, the paper analyses in-depth the state of Kerala - one of India's coastal states that has experienced unprecedented rates of sand mining since the 1990s especially along the Chavara coast albeit with less research on the intersectionality of mining on the resource nexus. Both the framework and our case study highlight how sand mining stresses local ecosystems and livelihoods thus increasing vulnerability to both human and environmental impacts. The paper brings to the fore seven (7) key steps that local institutions can use to guide sustainable sand mining and build integrated governance systems that promote interaction among natural capitals in a given area and livelihood considerations.

## **Book Chapter**

### **1. TK Arun Kumar, N Vinjusha (2023) WOOD-ROT POLYPORES OF KERALA, INDIA**

The paper discusses the ecological and economic importance of polypores from the perspective of Kerala state of India. Kerala is a part of the diversity-rich Western Ghats and possess rich polypore diversity. Cosmopolitan as well as geographically restricted polypore species are encountered in forested and human-inhabited regions of Kerala. Distribution patterns, environmental conditions, substrate preferences, wood rotters, pathogens, medicinal and edible species, and associations of polypores of Kerala are presented.

## **Agriculture and Rural Economy**

### **Scopus Indexed**

### **1. Manju S. Nair & Anupama Augustine , (2023). AGROECOLOGICAL TRANSITIONS DURING COVID-19: EVIDENCE FROM KERALA, INDIA**

To emerge as a dominant socio-technological regime, agroecological transitions require supportive public policies and collective agroecological actions, with refinement in scientific/technological practices, cultures, markets, and user preferences. Using a multi-level perspective approach, this study inquires why the proper positioning of these determinants is substantial in transforming niche innovations in agroecology into a dominant regime by replacing vicious cycles associated with enriching agribusiness with virtuous cycles that support regional ecologies and communities. The models of agroecological transition during the pre-COVID-19 and COVID-19 periods in Kerala and how the political agroecological position during the latter period succeeded in enabling a transition were examined. Owing to the landscape turbulence caused by COVID-19, the Government of Kerala triggered the de/realignment of determinants toward agroecological transition through programs, strategies, and nudges using a bottom-up approach under the “Subhiksha Keralam” (Self Sufficient Kerala) project. At the agroecosystem level, Characteristics of Agroecological Transition were used to quantify the magnitude of transition, the results demonstrating an improvement in farms during the COVID-19 period. The majority of homestead farms were characterized as agroecological, either in transition or advanced. The agroecological transition became possible because the government systematically targeted preferences and societal values,

along with modifying policy and technology, through nudges, thereby preventing possible lock-ins.

### **Other Journals**

1. Anil Gopi, (2023). TRIBAL DEVELOPMENT' - PERSPECTIVE FROM BELOW  
Journal of State and Society, Vol. 1

The development of Scheduled Tribes has always been a matter of concern, extensive discourse and actions for a long period in India. Starting from the colonial period, initiatives made by various bodies, governments as well as others had invariably brought changes in the life of the tribal people in India, and Kerala also has a similar historical trajectory. Though conditions are improving, there is a persisting degenerative condition lived by the people and also there is a marked disparity in the extent of improvements. The study reveals that there exists a scenario where the development reaches the ground differentially and reception by the beneficiaries also exhibits a continuum of aspirations, expectations, and realities. It also illustrates that for an effective realization of development initiatives certain cultural specificities and social dynamics at the basic level need to be emphasized.

2. Roshni Thampi and Allan Thomas, (2023). AN INVESTIGATION OF CONSTRAINTS EXPERIENCED BY HOME GARDEN FARMERS OF COASTAL AGRO-ECOLOGICAL UNITS OF SOUTHERN KERALA

This investigation focused on coastal home gardens in Southern Kerala, a common land use system in the region due to small farm household sizes. Conducted in 2021-22 across three selected panchayats, the study aimed to identify and measure constraints perceived by coastal home garden farmers. A total of 105 home gardens were sampled, with 35 from each panchayat, and farmers were interviewed using a structured schedule. Constraints were categorized into five groups: Economic, Personal, Technology, Physical, and Other Constraints. "Lack of scientific knowledge," "Salinity," and "Flooding" emerged as the most critical constraints. Farmers provided valuable suggestions, emphasizing tailored practices, support from extension agencies, collaborative technology development, integration of traditional and scientific approaches, market connections, accessible input centres, and the promotion of Farmer Producer Organizations (FPOs). These recommendations underscore crucial areas for future action, fostering the sustainability and productivity of coastal home gardens in Southern Kerala, benefitting both farmers and the broader community.

3. Mamidala Tejasree, S Moghana Lavanya, K Mahendran, N Sriram and R Parimalarangan (2023). A REGIONAL ANALYSIS OF TRENDS IN MILK PRODUCTION IN INDIA

The dairy industry in India is crucial for the country's economy. Over the past 40 years, it has experienced tremendous growth in milk production, making India the largest producer and consumer of dairy products. In the present study, an attempt has been made to use secondary data for 20 years (from 2003 to 2023) to understand the growth rate in milk production across five regions of India (North, East, West, South, and Central India) and also to analyze secondary data for a period of 20 years (from 2003 to 2023). The tools employed for the analysis were the Compound Annual Growth Rate and Trend Analysis to estimate the Growth Rate and Trends in Milk Production. Out of five regions, the North Zone exhibited the highest growth rate, followed by the South Zone. The CAGR of milk production witnessed a substantial increase during the second decade (From 2014 to 2023), showing an impressive increase of 43 percent when compared to the previous decade. The Trend analysis conducted in the study revealed that Milk Production in the North Zone was significantly higher in 20 years compared to the insignificant difference seen in Delhi, Goa, and Kerala states of the North, West, and South, respectively. The study indicates that there is a significant upward trend in milk production over the specified period, as analysed using Trend Analysis. The remarkable growth rate reflects the dairy industry's capacity to expand and cater to the rising demands for milk and its products.

4. Pooja Krishna Jayakrishnan, Jayalekshmi Gopalakrishnan Nair ,Archana Raghavan Sathyan, Ashutosh Jena and Manju Prem Shiva Reddy (2023) UNVEILING CLIMATE RESILIENCE OF PERI URBAN AGRICULTURE: A FARMING SYSTEM BASED ASSESSMENT OF COASTAL PLAINS OF KERALA, INDIA

Peri-urban agriculture is characterized by dynamic and synergistic interactions between urbanization and agricultural activities, making them pivotal for both food production and industries. However, one of the major concerns affecting its sustainability is climate change. One way to cope with climate change is to build resilience by identifying key areas that are most at risk, allowing for targeted interventions. With this objective, a study was conducted during the period 2019-2023, to assess the climate resilience of peri-urban agriculture in six agroecological units (AEUs) of Coastal plains, through the development of the Climate Resilience Index (CRI). Data was collected through focus group discussions, personal and key informant interviews with farmers, and discussions with extension personnel. CRI was

developed as the function of three dimensions- absorptive, adaptive, and transformative capacities, assessed in terms of 72 indicators. Absorptive and transformative capacities (0.592 and 0.568 respectively) contributed the most to the mean CRI of coastal plains (0.563). The major determinants contributing to better climate resilience of farmers included water sufficiency, lesser recovery time, better access to basic services, sustainable practices adopted, and other socio-economic and psychological characteristics. This research provides valuable information to enhance the resilience of peri-urban agriculture considering the challenges of climate change.

5. Hema M., Divya K. M., Berin Pathrose b and Sisira P. (2023) NATURAL ENEMIES ROLE IN COST REDUCTION: AN ANALYSIS OF RICE CULTIVATION IN KERALA, INDIA

Kerala, the state with the highest human development indices, is always concerned about its citizens' health. People's rising knowledge of the adverse effects of chemical inputs on agriculture has resulted in the development of eco-friendly agricultural techniques like organic farming. However, how natural enemies support pest control services in organic farming remains to be discovered at different scales and in diverse landscape contexts. The present study examined the natural enemy population in Kerala's paddy cultivation under conventional and organic systems. The reduction in the cost of cultivation in organic farming was primarily due to reduced labour charges due to the avoidance of pesticides and fertilizer application. Even though the effect of natural predators on organic farming was found to be, the farmers were unaware of the importance of natural enemies. Thus, the study highlighted the significance of organizing more awareness programmes, especially the on-farm ones.

6. Syam Krishnan R. and Radhakrishnan L. (2023) THE ROLE OF SMALL FARMERS AGRIBUSINESS CONSORTIUM (SFAC) TOWARDS DOUBLING FARMERS' INCOME: THE CASE OF KERALA, INDIA.

This paper describes the proactive interventions and positive impacts made by SFAC Kerala in the agribusiness sector. As we all know, doubling farmers' income is the main target of the country's agriculture sector during this period. SFAC Kerala also strives to achieve the same goal. Here, the performance of the 54 agribusiness units initiated by SFAC Kerala in the last five years (from the 2017-18 financial year to the 2021-2022 financial year) duration has been considered for analysis and interpretation. Census methodology has been adopted in this

study. Primary data was collected from all the above agencies through the telephonic interview method. Barring a decline phase during the COVID-19 pandemic, SFAC's efforts towards doubling farmers' income have been successful. The average monthly income of farmers has increased by over sixty percent in the last five financial years. If the current growth rate is maintained, SFAC will achieve the target of doubling farmers' income within a minimum of five financial years through the agribusiness sector. Advanced technology adoption and professional management approaches in the field of agribusiness are more helpful in the journey towards it.

7. Manju A., Sindhumole P., Jiji Joseph, Pradheep K., Sangeeta Kutty M. and Seeja Thomachan Panjikkaran, (2023). ESTIMATION OF HETEROSIS IN HYBRID SEEDLINGS OF DRUMSTICK (MORINGA OLEIFERA)

Two hybrid seedlings of drumstick (*Moringa oleifera*) derived from two crosses between Jaffna and PKM1 (MF1H1) and IC632344 and PKM1 (MF1H2) were evaluated for juvenile growth and nutrient content to study the heterosis (hybrid vigor) at College of Agriculture, Kerala Agricultural University, Thrissur during 2022-2023. Positive heterosis was evident in both the hybrids for seedling height, root collar girth, number of live leaves, stem volume index, dry matter of leaf, and beta-carotene. Also, they marked superiority over parents and checked variety in case of short intermodal length. Specifically noted the positive heterosis of MF1H1 for Seedling vigor index as well as iron content and MF1H2 for protein content. Regarding the seed germination and vit. C content, both hybrids are noted as inferior to the parents and check variety. The heterotic advantages emphasize the potential of harnessing hybrid vigor through hybridization for the genetic improvement of the drumstick.

8. Akhilesh Muralidharan, Divina Maria Alex, Annie Thomas (2023) PADDY CULTIVATION IN KERALA: NAVIGATING TRENDS AND FORECASTING PRODUCTION TOWARDS 2030

This research examines current trends in paddy cultivation in Kerala. Analysis of available data reveals a decade-long variability in paddy cultivation, marked by notable fluctuations. Recognizing the significance of rice in Kerala's diet, the study forecasted rice production up to 2030. The forecast suggests a consistent trend for most districts until 2030. Notably, Kollam and Malappuram show increasing production, while Idukki and Kozhikode exhibit a decline. KEYWORDS: Paddy cultivation, Forecast, 2030.



9. Nikhil Prathapachandran, Varuvel Devadas (2023) SUSTAINABLE AND TRADITIONAL AGRICULTURAL PRACTICES TO REINFORCE INCOME DYNAMICS AMONG TRIBAL COMMUNITIES IN RURAL WAYANAD, KERALA, INDIA.

This comprehensive study conducted in Wayanad, Kerala, India, explores sustainable traditional farming practices in rural tribal households, with a primary goal of boosting income growth and agricultural productivity. The research delves into the intricate relationship between agricultural methods, income distribution, and ecological factors across household income brackets. Descriptive statistics provide a contextual understanding, while regression analysis offers insights into the relationships between Income and Agricultural Practices. The study assesses the impact of various traditional methods on agriculture, investigates the profitability and practices associated with organic, artificial, and mixed farming, and observes that mixed farming methods are more profitable than relying solely on natural practices, with income levels influencing the adoption of advanced farming technologies. The research explores the correlation between combining animal husbandry and agriculture in households, revealing an association with increased profit margins. Emphasizing the importance of sustainable agricultural practices, the study shows a preference for traditional farming techniques in the low-income bracket and a shift towards artificial methods as income rises. The research offers valuable insights into income, farming practices, and sustainability in this context.

10. Bitto Paul and Dr Devi. P, (2023). FACTORS INFLUENCING THE CHOICE OF VIRGIN COCONUT OIL – A VALUE ADDED PRODUCT OF COCONUT

The coconut palm, also known as the "tree of heaven," is a major commercial crop in tropical areas. And it exerts a powerful influence on the rural economies of many states and provides sustenance to more than 10 million people directly or indirectly. The value of coconut is determined by several factors. One of the main factors is the demand for value-added products made from coconut. The purpose of this study is to investigate the factors influencing the choice of virgin coconut oil—a value-added product of coconut. To achieve this objective, a sample of 101 respondents was collected in the Ernakulam district in Kerala by a convenient sampling method, and the results were analysed with the help of the statistical tool SPSS. The results indicated that the independent variables such as price, product quality, availability, and health benefits have a positive impact on the purchase intention of virgin coconut oil

## **Banking and Finance**

### **Book chapter**

#### **Scopus Indexed**

1. Jagadish Hiremath, Divakar Hemadri, Shivasharanappa Nayakvadi, Chethan Kumar, Chirathahalli Shiva Murthy Sathish Gowda, Damini Sharma, Rajendran Ramamoorthy, Suresh Shankanahalli Mamatha, Sharanagouda Patil, Raveendran Alakkanddy Ranjini, Thikkal Veedu Jayamohanan, Susan Abraham Swapna & Baldev Raj Gulati (2023) EPIDEMIOLOGICAL INVESTIGATION OF ASF OUTBREAKS IN KERALA (INDIA): DETECTION, SOURCE TRACING AND ECONOMIC IMPLICATIONS

This study investigates suspected African swine fever (ASF) outbreaks in two villages of Kannur district in Kerala, India, focusing on identifying the causative agent, its genotype, the source of infection, and estimating economic losses. Clinically, the disease exhibited acute symptoms with high mortality, and gross pathology indicated widespread hemorrhages, particularly in the spleen. Histopathological examination confirmed ASF, identified through PCR. The outbreak source was traced to swill, suggesting a likely point source infection. Genotypic analysis revealed the ASFV in this outbreak as genotype-II and IGR II variants. Sequence analysis of the B602L gene's Central Variable Region (CVR) showed that ASFVs in Kerala formed a distinct clade, indicating genetic divergence from those in other Indian regions. This study marks the first investigation of ASF outbreaks in South India and emphasizes the utility of CVR in genetically characterizing similar ASFV genotypes for understanding the virus's spread within the country.

2. Paul J. Philip, Gyana R. Panda,(2023). DISPARITIES IN CATASTROPHIC HEALTH EXPENDITURE FOR HOSPITALIZATION IN URBAN KERALA, INDIA: EVIDENCE FROM 75TH ROUND OF THE NATIONAL SAMPLE SURVEY.

Existing literature suggests significant disparities in health expenditure incurred by households receiving health services. To determine fair contributions by beneficiaries, it is crucial to understand the existing inequalities in the context of financial protection measures and the factors influencing them. This exploratory study looks at how catastrophic health expenditures (CHE) are distributed across economic groups. The study also casts light on what drives the inequalities in the incidences of CHE. The study uses unit-level data from the

75th round of the National Sample Survey fielded periodically by the Government of India. It employs logistic regression to study factors affecting CHE. Furthermore, the concentration index and its regression-based decomposition are employed to have a sense of inequality and the factors driving it. The findings reveal socioeconomic inequality in CHE incidence and highlight the contribution of medical institutions (whether public or private) and consumption expenditure of households to the total inequality. The present study, while critically looking at the pre-existing inequalities, highlights the shortcomings of health financing in urban areas and calls for a reconsideration of extant policy designs. The study maintains that factors outside the control of the health system may be responsible for disparities in catastrophic medical spending. Therefore, to reduce the burden of catastrophic health spending and its inequalities, future policy measures must take into account both elements within the health system and those outside of it.