

**Optimizing Labor Intensity Improves Economic and  
Environmental Performances in Pu'er Tea  
Plantations in China**

**TEA**

Panfeng Li. Et al

**POLICY IMPLICATIONS**

Policy implications include providing government subsidies for plantations under organic management (OM), establishing strong branding for OM products, and promoting scientific fertilization practices. Emphasis should also be placed on eco-friendly pest control methods, cultivation of novel crop varieties, and optimization of labor resources. To enhance productivity and sustainability, mechanized production should be encouraged alongside the enforcement of ecological compensation policies. Additionally, it is crucial to support smallholder farmers by integrating them into value chains and ensuring their participation in equitable revenue-sharing mechanisms.

**Aim of the paper**

The study tries to compare the performance under both organic management and conventional management of tea production of Pu'er tea in the Yunnan province in China. The study compares the economic and environmental performances between organic and conventional Pu'er tea plantations under different labor intensities based on economic analysis, emergy evaluation, and environmental footprints.

**Findings**

The study revealed that organic management(OM), when compared to conventional management(CM), reduced overall costs by 9.06% and increased the income-to-cost ratio by 33%. It also showed better sustainability outcomes, with a higher Emergency Sustainability Index (ESI) and a lower Environmental Footprint Index (EFI). Both conventional and organic management approaches delivered strong economic and ecological benefits, but under different labor conditions—conventional methods performed best with a labor input of 3 to 6 persons per hectare, while organic methods were most effective with 8 to 10 persons per hectare.

**Method of Study**

The study was done based on a primary survey, which was conducted on 5 Townships of Simao district. A total of 213 tea farmers were surveyed, resulting in valid data for 194 households. Data on input and output costs were gathered through detailed questionnaires, while labor wages were specifically calculated based on agronomic production hours.

**Reference**

Li, Panfeng, Yuanran Xian, Xinhui Huang, Biao Wang, Xiaolong Wang, Yinan Xu, Juping Yan, Jixiao Cui, Yuanquan Chen, and Wangsheng Gao. "Optimizing Labor Intensity Improves Economic and Environmental Performances in Pu'er Tea Plantations in China." *Ecosystem Health and Sustainability* 11 (2025): 0307.

**Read more**

<https://spj.science.org/doi/full/10.34133/ehs.0307>



**Poverty and education: the impacts of tea workers'  
chronic poverty on their children's education in rural  
Bangladesh**

**TEA**

Md Al-Amin. Et al

**POLICY IMPLICATIONS**

State intervention to improve educational infrastructure, particularly secondary and higher education access, within or near tea plantations. Legal and institutional reforms to recognize land and labor rights of tea workers, including fair wages and benefits. Targeted social safety nets and scholarships for tea worker families to reduce early dropouts and support continued education. Community outreach programs to change cultural attitudes towards female education and early employment. Greater oversight of plantation management practices that perpetuate structural poverty and impede social mobility.

**Aim of the paper**

The paper aims to explore how chronic poverty among tea plantation workers in rural Bangladesh negatively affects the educational attainment and occupational outcomes of their children. It seeks to fill a gap in the literature by connecting the structural and systemic causes of persistent poverty with generational educational deprivation in these marginalized communities.

**Findings**

The study found that Chronic poverty traps tea worker families in a cycle of deprivation shaped by poor wages, lack of property rights, and company-controlled housing and employment. Educational access is limited by distance from schools, lack of transportation, unaffordable associated costs, and poor infrastructure. Children often drop out early due to poverty, peer influence, lack of parental literacy, and cultural norms—especially for girls, who face additional barriers like early marriage. Even when children attain education, limited opportunities and discrimination prevent upward mobility. Plantation owners deliberately restrict educational access to sustain a dependent and affordable labor force.

**Method of Study**

The study has employed a qualitative research design. Fieldwork was conducted in two major tea estates in the Sylhet Division (Finlay and Lungla). Researchers used in-depth interviews (47 total), 8 case studies, 5 focus group discussions, and direct observation. Respondents included both tea workers and their children from diverse ethnic backgrounds.

**Reference**

Islam, Md Nazrul, and Md Al-Amin. "Poverty and education: the impacts of tea workers' chronic poverty on their children's education in rural Bangladesh." *Labor History* (2025): 1-17.

**Read more**

[https://www.tandfonline.com/doi/abs/10.1080/0023656X.2025.2451414?](https://www.tandfonline.com/doi/abs/10.1080/0023656X.2025.2451414?casa_token=8LNpoxETg9sAAAAA:r5OBZo6nqcoGcKx34vcYwf1scLO02b79684TFYCEgqV-BH3jyoLj1EDBT1iKTg4Y1GuVCKqsCLW1GjA)

[casa\\_token=8LNpoxETg9sAAAAA:r5OBZo6nqcoGcKx34vcYwf1scLO02b79684TFYCEgqV-BH3jyoLj1EDBT1iKTg4Y1GuVCKqsCLW1GjA](https://www.tandfonline.com/doi/abs/10.1080/0023656X.2025.2451414?casa_token=8LNpoxETg9sAAAAA:r5OBZo6nqcoGcKx34vcYwf1scLO02b79684TFYCEgqV-BH3jyoLj1EDBT1iKTg4Y1GuVCKqsCLW1GjA)



## Landslide Risk Assessment in a Century-Old Tea Plantation Range Following Monsoonal Extremes in the Western Ghats of Kerala, India

TEA

K. Amal George et al

### POLICY IMPLICATIONS

Policy recommendations include strengthening zoning regulations through the implementation of context-specific building codes, particularly in landslide-prone areas. The development and deployment of early warning systems in high-susceptibility zones are crucial for enabling timely evacuation and disaster preparedness. Additional measures should focus on community awareness programs to educate and equip local populations, investing in resilient infrastructure capable of withstanding landslide events, and formulating comprehensive rehabilitation and support policies for affected communities.

### Aim of the paper

The study seeks to explore various factors influencing the landslides at Kannan Devan Hill (KDH) region of the Western Ghats (WG) in Peninsular India, during the monsoon season. The study tries to understand the factors beyond the primary heavy rainfall triggers that cause these landslides.

### Findings

Most of the landslides in the area are classified as landslides caused by torrential rains during the monsoon, some of which are related to the undermining of roads and other unplanned developments and urbanizations. The study also predicts future similar events, demonstrating a complex interplay between climatic, geological, geomorphological, and anthropogenic factors in triggering such disasters

### Method of Study

The study was conducted on the Kannan Devan Hills village in the Idukki district of Kerala. It employed the Frequency Ratio (FR) method on Geographic Information System (GIS) platform to evaluate the influence of geological characteristics, terrain morphology, and human activities on landslide occurrences in alignment with the UN-SDGs, which emphasize sustainable cities, climate action, and disaster risk reduction. A base map and an inventory map were created to capture the accuracy of the village under study. Field studies were also conducted at Pettimudi and other parts of the village, following the devastating landslide on August 6, 2020, to serve as a case study.

### Reference

George, K. Amal, P. S. Sunil, A. U. Anish, K. M. Sreejith, Girish Gopinath, and AA Mohamed Hatha. "Landslide risk assessment in a century-old tea plantation range following monsoonal extremes in the Western Ghats of Kerala, India." *Anthropocene Science* (2025): 1-16.

### Read more

<https://shorturl.at/5ZZgh>





## Women, work and tea plantations: mapping gender on laboring bodies

TEA

Deepshikha Khatoniar & Sarmistha Das

### POLICY IMPLICATIONS

Gender-sensitive labor reforms are necessary, particularly in recognizing and properly valuing feminized tasks. Formal recognition of domestic labor and its economic contribution is crucial for challenging entrenched patriarchal norms. Structural changes in plantation governance, including rights over land, housing, and employment, can help break cycles of dependency. Community-based interventions could support women's education, skills training, and economic autonomy—offering real alternatives to intergenerational plantation labor.

### Aim of the paper

The paper aims to examine the gendered dimensions of labor on tea plantations in Assam, focusing on women's dual roles—as plantation workers and as caregivers in the household—and how these roles are shaped and constrained by patriarchal and capitalist structures. It interrogates how the plantation system relies on and reproduces women's labor while marginalizing them economically and socially.

### Findings

Women's labor is central to both tea production and the reproduction of the labor force, yet remains undervalued. Their tasks are feminized and labeled “unskilled,” though they require significant expertise. Men dominate higher-paid factory jobs and escape household responsibilities, while women perform exhausting physical and emotional labor both at work and at home. Despite doing the same plantation work, wage parity is subverted by task-based inequality. Workers depend on company-owned housing and services, reinforcing their immobility. Acts of subtle resistance and negotiation show women's agency within constraints. Upward mobility is rare, and even literacy or supervisory roles don't dismantle structural inequities.

### Method of Study

The authors conducted an ethnographic field study over a year on a tea plantation in Jorhat, Assam. They collaborated with a local community organization to gain access. Participant observation, informal conversations, and semi-structured interviews (12 women and 5 men) were used for the study. Data collection emphasized women's lived experiences across both workplace and home settings.

### Reference

Khatoniar, Deepshikha, and Sarmistha Das. "Women, work and tea plantations: mapping gender on laboring bodies." *Asian Journal of Women's Studies* (2025): 1-21.

### Read more

<https://shorturl.at/9d5pS>



## Livelihood Capital, Speculative Preferences, and Natural Rubber Farmers' Participation in Cooperative

RUBBER

Shilei Qiao

### POLICY IMPLICATIONS

To boost cooperative participation, the focus should be on improving farmers' skills, training, and access to basic resources. Introduce financial tools, such as insurance and credit, to steer them away from risky, short-term choices. Tailor support for vulnerable groups—like new or disaster-hit farmers—and consider the role of mindset in decision-making. Finally, promote successful cooperative stories on the ground to build trust and show what's possible.

### Aim of the paper

The study investigates how livelihood capital and speculative preferences influence the decision of natural rubber farmers in Hainan, China to participate in cooperatives. It specifically aims to fill the empirical gap in understanding how these two factors interact within the context of rubber farming.

### Findings

Human and physical capital significantly boost the likelihood of farmers joining cooperatives, while natural capital shows a negative association—possibly due to land fragmentation and reduced efficiency. Importantly, speculative preferences—measured by farmers' propensity to buy lottery tickets—dampen the positive impact of livelihood capital, suggesting that risk-seeking behavior discourages long-term cooperative commitments. These preferences notably weaken the effects of both material and human capital. Heterogeneity analysis further shows that farmers with less production experience, recent disaster exposure, or limited crop diversification are more responsive to livelihood capital in their decision to engage with cooperatives.

### Method of Study

The study is based on a field survey of 506 natural rubber farmers across six counties in Hainan. Using the Sustainable Livelihoods Framework as the analytical foundation, it assesses five forms of livelihood capital: natural, physical, human, financial, and social. To test the proposed hypotheses, the study employs Logit regression models, incorporating interaction terms to capture potential moderating effects.

### Reference

Qiao, Shilei, Jiyao Liu, Tao Xu, and Desheng Zhang. "Livelihood Capital, Speculative Preferences, and Natural Rubber Farmers' Participation in Cooperatives." *Agriculture* 15, no. 5 (2025): 562.

### Read more

<https://www.mdpi.com/2077-0472/15/5/562>



## Designing a Supply Chain Network for Rubber Exports: A Case Study in Northeast Thailand

RUBBER

Prapavarin Ratanamaneesakul, et al

### POLICY IMPLICATIONS

The paper highlights the need for evidence-based planning in agricultural industrialization, recommending that entrepreneurs and policymakers use GIS tools to guide infrastructure investments. By incorporating cost, transport, and geographic data, decision-makers can support sustainable development of the rubber export sector. The study also encourages strategic public-private partnerships to enhance transportation and processing capacity in high-potential regions.

### Aim of the paper

This study aims to design an efficient supply chain network for rubber exports in Northeast Thailand by identifying optimal locations for rubber processing factories. It evaluates how strategic placement of these facilities can reduce transportation time and costs while enhancing connectivity to central rubber markets, customs checkpoints, train stations, and ports. The objective is to support investment decisions and expand rubber production zones in response to growing international demand.

### Findings

Scenario analysis revealed that if only one factory is to be built in the upper northeastern region, Sakon Nakhon is the most efficient location. For two factories, Bueng Kan and Loei provinces are optimal due to their centrality and reduced travel times. In the lower region, Buriram is favored for its proximity to raw materials and export points. Though GIS-based optimization prioritized logistics efficiency, land prices varied significantly, influencing overall feasibility—Bueng Kan had the lowest cost, while Udon Thani had the highest.

### Method of Study

The research integrates Geographic Information Systems (GIS) tools, particularly the Center of Gravity and Location Allocation models, to analyze seven assumed factory sites across the upper and lower northeastern regions. Data from farmer institutions, central markets, and export terminals were mapped and processed in ArcGIS to calculate the shortest distances and optimal factory placements. Distance, travel time, and land availability were assessed, alongside land price and construction cost data, to offer practical decision-making insights.

### Reference

RATANAMANEESEKUL, Prapavarin, and Juthathip SURARAKSA. "Designing a Supply Chain Network for Rubber Exports: A Case Study in Northeast Thailand." *Journal of Distribution Science* 23, no. 1 (2025): 33-49.

### Read more

<https://koreascience.kr/article/JAKO202503557602480.page>





# Farmers' perception on the impact of climate change in rubber tree production and their knowledge of rubber-based agroforestry: case study of Côte d'Ivoire

RUBBER

Akissi Elise Konan, et al

## POLICY IMPLICATIONS

The paper calls for government-led initiatives to raise awareness and train farmers in agroforestry and climate resilience practices. Policies should prioritize integrating agroforestry into national agricultural plans, reinforce institutional support, and improve communication between sectors. Addressing barriers such as low education and limited access to information is essential for empowering farmers and ensuring sustainable rubber cultivation under changing climatic conditions.

### Aim of the paper

This study explores smallholder rubber farmers' perceptions of climate change and their knowledge of rubber-based agroforestry in Côte d'Ivoire. It aims to understand how socio-demographic factors like education, gender, and region shape farmers' awareness, practices, and attitudes, particularly in the face of climate threats to rubber production. The goal is to inform sustainable agricultural strategies that align with climate adaptation needs.

### Findings

The majority of farmers practiced rubber monoculture, with very limited knowledge of agroforestry (only 30%) and minimal training received. Over 70% lacked awareness of climate change. Climatic factors like rising temperatures and declining rainfall were widely perceived as threats to yield and as drivers of new plant diseases. Education level, climatic zone, and gender significantly influenced perception and awareness. Farmers with higher education levels were more likely to be aware of agroforestry and climate change issues.

### Method of Study

The research was conducted across three climatic zones—Guinean, Sudano-Guinean, and Mountain—using a structured questionnaire administered to 339 smallholder rubber farmers. Data collection focused on demographic information, farm characteristics, knowledge of agroforestry, and perceptions of climate change. Descriptive statistics and a multinomial logit regression model were used to assess the influence of socio-economic variables on farmers' awareness and perceptions.

### Reference

Konan, Akissi Elise, Moussa Karembe, Dolou Charlotte Tonessia, and Eric Francis Soumahin. "Farmers' perception on the impact of climate change in rubber tree production and their knowledge of rubber-based agroforestry: case study of Côte d'Ivoire." *Discover Sustainability* 6, no. 1 (2025): 1-13.

### Read more

<https://link.springer.com/article/10.1007/s43621-025-00982-8>



## Coffee processing waste: Unlocking opportunities for sustainable development

COFFEE

Tsigkou, et al

### POLICY IMPLICATIONS

The authors argue for urgent regulatory frameworks that promote CPW management and valorization through producer responsibility, eco-certification, and incentivized circular economy practices. Governments and industries are encouraged to invest in R&D, pilot-scale trials, and cross-sector synergies that enable scalable biorefinery models. The integration of CPW valorization into national sustainability agendas could address pressing environmental concerns while generating local employment, improving rural incomes, and reducing the carbon footprint of coffee production. Clear policy direction is critical to move from fragmented practices to a robust, zero-waste circular coffee economy.

### Aim of the paper

The paper explores the sustainable management and valorization of coffee processing waste (CPW), emphasizing its potential within a circular economy framework. Given that over 90% of coffee cherry biomass is discarded as waste, the study identifies opportunities to convert these waste streams into valuable products.

### Findings

The paper reveals that CPW, if untreated, poses serious risks to water, soil, and air quality due to high organic loads and toxic compounds like phenolics and caffeine. CPW also holds substantial promise for valorization into biofuels, organic fertilizers, biodegradable materials, animal feed, construction materials, and high-value biochemicals. Technological pathways such as pyrolysis, anaerobic digestion, fermentation, and composting have demonstrated success at lab-scale. Notably, the biological conversion of coffee mucilage and husk into bioethanol and biomethane showed high yields under optimized conditions. Nevertheless, there are major barriers to scaling, including inconsistent waste characteristics and a lack of regulatory and logistical infrastructure.

### Method of Study

A literature review was conducted, focusing on the types, quantities, and characteristics of CPW across major coffee-producing regions, especially East Africa. The analysis included technical assessments of coffee waste components, waste generation by processing method, and the environmental burden associated with improper waste disposal. The study further compiled emerging biorefinery models, thermochemical and biological conversion technologies, and evaluated their potential for scaling and integration within the coffee value chain.

### Reference

Tsigkou, Konstantina, Berhanu Assefa Demissie, Suhaila Hashim, Parisa Ghofrani-Isfahani, Rewe Thomas, Kidere Flaura Mapinga, Shimelis Kebede Kassahun, and Irini Angelidaki. "Coffee processing waste: Unlocking opportunities for sustainable development." *Renewable and Sustainable Energy Reviews* 210 (2025): 115263.

### Read more

<https://www.sciencedirect.com/science/article/pii/S1364032124009894>





## The smallholder coffee farmer's livelihood adaptation strategies in Bengkulu, Indonesia

COFFEE

Andi Irawan

### POLICY IMPLICATIONS

The study calls for policies that promote sustainable and inclusive rural development by supporting adaptive livelihood strategies. Specifically, it highlights the need to formalize and scale profit-sharing models that balance ecological integrity with economic upliftment. Moreover, strengthening access to financial services, improving agricultural extension systems, investing in rural infrastructure, and protecting land tenure rights are crucial to empower farmers. Policymakers should also recognize and regulate migration-induced deforestation while promoting diversified, community-rooted strategies that reduce farmers' vulnerability without compromising the environment.

### Aim of the paper

This study investigates how smallholder coffee farmers in Bengkulu, Indonesia adapt their livelihoods in the face of various risks, aiming to escape poverty and ensure long-term sustainability. Framed within the Sustainable Livelihoods Approach (SLA), the paper seeks to identify the major livelihood risks faced by these farmers, how they use available assets to mitigate such risks, and the adaptation strategies they adopt in response to persistent socio-economic vulnerabilities, limited resources, and external shocks like climate change.

### Findings

Four key livelihood risks were identified: small landholding size, climate variability, market price instability, and security concerns such as crop theft. While traditional strategies like on- and off-farm diversification, cost-cutting, and family labor involvement help maintain subsistence, only two strategies—migration and profit-sharing—enable farmers to rise out of poverty. Migration, however, involves deforestation and is not environmentally sustainable. In contrast, profit-sharing (a novel finding in this context) between landless or asset-poor farmers and capital-owning intermediaries (toko) offers a more viable and sustainable path out of poverty, leveraging labor and management inputs from farmers and financial support from toko.

### Method of Study

The study relies on fieldwork conducted in Kampung Melayu village. Data collection involved direct observation and in-depth interviews with nine key informants who are smallholder farmers. The analysis focused on identifying livelihood risks, categorizing livelihood assets (natural, financial, human, physical, and social), and mapping the strategies used by households to maintain or improve their well-being.

### Reference

Irawan, Andi. "The smallholder coffee farmer's livelihood adaptation strategies in Bengkulu, Indonesia." *Journal of Strategy and Management* 18, no. 1 (2025): 73-95.

### Read more

<https://shorturl.at/huQQf>



## Legal Protection of Geographical Indication of Robusta Semendo Coffee Towards Improving the Regional Economy of Muara Enim District

COFFEE

Syafira Aquaristha, et al

### POLICY IMPLICATIONS

The study calls for policies that promote sustainable and inclusive rural development by supporting adaptive livelihood strategies. Specifically, it highlights the need to formalize and scale profit-sharing models that balance ecological integrity with economic upliftment. Moreover, strengthening access to financial services, improving agricultural extension systems, investing in rural infrastructure, and protecting land tenure rights are crucial to empower farmers. Policymakers should also recognize and regulate migration-induced deforestation while promoting diversified, community-rooted strategies that reduce farmers' vulnerability without compromising the environment.

### Aim of the paper

The paper investigates the role of legal protection for the Geographical Indication of Robusta Semendo Coffee in enhancing the regional economy of Muara Enim Regency, Indonesia. It emphasizes the importance of protecting unique agricultural products through intellectual property rights to preserve quality, prevent misuse, and create economic value.

### Findings

The GI certification of Robusta Semendo Coffee has significantly contributed to its market recognition, both domestically and internationally, leading to increased demand and export. This legal status ensures protection against imitation and enhances consumer trust in product quality, supported by standardized cultivation, harvesting, and post-harvest practices. The Muara Enim government has actively supported the process through farmer training, quality monitoring, marketing initiatives, and traceability systems. These efforts have preserved the coffee's unique characteristics and helped stabilize prices, thereby improving farmer incomes and boosting local economic activity.

### Method of Study

This study uses a qualitative legal research method combining literature review and field research. Secondary data were collected from legal texts, academic literature, and policy documents, while primary data were gathered through structured interviews with stakeholders, particularly coffee farmers and government officials in Muara Enim. A descriptive-analytical approach was adopted to interpret and link data to relevant legal and socio-economic theories, especially focusing on intellectual property and regional economic development frameworks.

### Reference

Aquaristha, Syafira, Firman Freaddy Busroh, and Marsudi Utoyo. "Legal Protection of Geographical Indication of Robusta Semendo Coffee Towards Improving the Regional Economy of Muara Enim District." In 2nd International Conference Changing of Business Law (ICOCLB 2024), pp. 445-456. Atlantis Press, 2025

### Read more

<https://shorturl.at/p5XHR>



## Socio-Economic Conditions Of Nutmeg Farmers In Lonthoir Village After Independence

SPICES

Puput Muhamad

### POLICY IMPLICATIONS

The paper emphasizes the need for tailored land reform and legal aid in remote areas to formalize tenure and support farmers' rights, as well as rethinking modernization models that marginalize smallholders and increase market dependency. The state should provide price stabilization mechanisms and inclusive marketing support for nutmeg growers. Recognition and integration of customary systems in national policy to enhance resilience and sustainability are necessary. There should be a strengthening of social infrastructure, such as cooperative institutions, to balance modernization with community values.

### Aim of the paper

The study examines how historical transformations—particularly post-independence land reform, agricultural modernization during the New Order, and globalization—shaped the economic, social, and cultural lives of nutmeg farmers in Lonthoir Village, Banda Island. It aims to reveal how these farmers navigated structural challenges over five decades.

### Findings

Land reform under UUPA 1960 failed in remote areas like Lonthoir due to bureaucratic delays and poor infrastructure, leaving farmers without land titles. During the New Order, modernization mainly benefited elites, while smallholders faced capital, input, and market challenges. Despite this, farmers showed resilience through crop diversification, customary land systems, and strong social networks. Though global spice price swings and synthetic competition hurt incomes, local solidarity and traditions helped mitigate the impact.

### Method of Study

A qualitative, historical-ethnographic approach was used to conduct in-depth interviews with farmers, traditional leaders, traders, and local officials. The study employed participant observation and document analysis to capture lived experiences and policy impacts. Data was analyzed using thematic coding, focusing on recurring patterns across narratives and observations.

### Reference

Muhamad, Puput. "Socio-Economic Conditions Of Nutmeg Farmers In Lonthoir Village After Independence 1950-2000." *ARRUS Journal of Social Sciences and Humanities* 5, no. 1 (2025): 820-827.

### Read more

<https://jinav.org/index.php/soshum/article/view/3705>





## Intercolonial Cinnamon: Fashioning Connections from the Eighteenth to Mid-Nineteenth Centuries

SPICES

Daniel Costa

### POLICY IMPLICATIONS

Colonial ambitions often hinged as much on scientific and agricultural innovation as on territorial control. Intercolonial knowledge-sharing and rivalries shaped global commodity systems well before the twentieth century. Recognizing the role of peripheral agents (like missionaries, enslaved laborers, and local botanists) is crucial in understanding how colonial empires functioned. The paper highlights how plants and their cultivation became instruments of soft power, shaping imperial strategies far beyond military conquest.

### Aim of the paper

This article explores how the quest for cinnamon catalyzed intercolonial and transimperial connections between European colonies from the eighteenth to the mid-nineteenth centuries. It moves beyond the traditional colony-metropole lens to show how cinnamon cultivation and trade fostered botanical knowledge, rivalry, and collaboration across empires.

### Findings

Cinnamon was not just an economic commodity but a site of imperial ambition and scientific exchange. The efforts were driven by the desire to compete with monopolies (notably the Dutch in Ceylon) and reduce reliance on Asian trade routes. Botanical gardens became centers for experimentation and intercolonial collaboration, often supported by scientific societies and royal patronage. Attempts to grow cinnamon were frequently impeded by environmental unsuitability, labor challenges, and political rivalries.

### Method of Study

A historical archival analysis was conducted utilizing sources from Europe and former colonies in six languages (Spanish, Portuguese, Dutch, Italian, French, and English). The study combined official correspondence, missionary records, scientific publications, travel narratives, and botanical treatises. Chronologically and geographically structured the study to understand how cinnamon cultivation spread and what motivated the adoption of it.

### Reference

COSTA, DANIEL. "Intercolonial Cinnamon: Fashioning Connections from the Eighteenth to Mid-Nineteenth Centuries." *History* 110, no. 389 (2025): 49-67.

### Read more

<https://onlinelibrary.wiley.com/doi/abs/10.1111/1468-229X.13428>



## **National Research Programme on Plantation Development (NRPPD)**

NRPPD at CDS undertakes policy-oriented research on all aspects of India's plantation sector. The programme is funded by the Ministry of Commerce, Government of India. For more information on NRPPD please visit : <https://cds.edu/endowments/nrppd/>



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