

A Comparison between the Two Biggest Coffee Exporters: Are Government Policies for Coffee Production in Brazil and Vietnam Supporting Independent Coffee Farms?

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Abstract

Coffee production by independent farmers is being challenged by climate change, price fluctuations and pressures from trans-national corporations. Recognizing this, governments of coffee producing countries have implemented subsidies and other measures, to alleviate the pressure, but these can have consequences beyond economics. To explore this, we analyzed the role of subsidies on the economic viability of independent coffee farms in Vietnam and Brazil using a PESTLE analysis. This framework examines the political, economic, social, technological, legal, and environmental areas that will influence the effectiveness of these subsidies. The research used academic sources, government publications, and industry reports. The results suggest that, while supportive measures such as subsidies and credit access can help stabilize independent farmers' income, producers can grow reliant on subsidies rather than actively responding to signals from the market or adopting natural resource management systems. These findings add to the growing evidence that measures aimed to support producers need to recognise the effect in long-term motivations of independent coffee producers to ensure the long-term sustainability of their livelihoods. While these results provide a comprehensive macro-level analysis, future research should explore the implications of policy support at individual level.

Keywords

Brazil, Vietnam, Coffee, Subsidies, Independent Farmers

1. Introduction

Many households in developing economies depend on coffee as a stable source of income. Coffee is also a staple product in many households around the world. However, coffee production via smallholdings can be vulnerable to price fluctuations, climate change, and competition against transnational corporations (TNCs).

The majority of the coffee produced in the world comes from smallholder and family farms, with 60% of coffee being produced from farms smaller than 5 hectares (Siles et al., 2022). Independent coffee farmers, defined as non-corporate, family-run producers that cultivate ≤ 5 hectares of land, form the backbone of this sector (Bozzola et al., 2021). This is the case for Vietnam and Brazil, the two major coffee producers in the world. Both countries have introduced subsidies aimed at coffee producers from small farms, with the aim of promoting their financial sustainability. A subsidy in this context is a sum of money given by the government to a producer to support them so that the prices of coffee can remain low or competitive (Yusuf, 2021). The programs are intended to lower their production costs, encourage environmental sustainability, and lift these families out of poverty. Yet, subsidies also face criticism, with some experts raising concerns that these interventions directly impact the long-term viability of independent farmers, ultimately leading to structural barriers that unintentionally favors TNCs.

This paper aims to evaluate the effect of subsidies on the long term sustainability of independent coffee farmers by assessing the impact of subsidies across multiple dimensions using a PESTLE framework. This framework encompasses the political, economic, social, technological, legal, and environmental aspects of the subsidies that will determine its effectiveness. As an exploratory study, the research focuses on the two major coffee producers in the world, Brazil and Vietnam, that exemplify the continued major consumer base for coffee. It is crucial that the government and farmers strive to make coffee a sustainable economic business venture. This research contributes to the ongoing debate about the effectiveness of such subsidies in advancing sustainable agriculture and their implications for global coffee markets, as well as the possible effects on worldwide coffee commerce.

2. Literature Review

Reviewing existing studies, there are questions raised about the success of government subsidies at their effectiveness of economically sustaining the coffee farms. According to Huynh and Popova (2023), they found that while these subsidies do assist in sustaining production thresholds through subsidies, the effectiveness of these policies in the long-run still remains unclear whether it will remain having a positive effect for independent farmers.

Another paper by Watson and Achinelli (2008) agrees with Huynh and Popova whereby government interventions may offset costs, but also influence the market negatively. For instance, subsidies may cause producers to become inefficient as they become overly reliant on the government and do not feel the need to contin-

uously innovate to compete in the market. Therefore, Watson and Achinelli highlight the need to improve the design of subsidies to become effective both in the short-run and in the long-run.

Sellare et al. (2020) assessed the environmental consequences of coffee subsidies, where they found that a lack of access to subsidies encourages the use of agrochemicals, leading to negative impacts on the environment. This supports the criticism where if subsidies are designed effectively, it can lead to the opposite effect that was unintended. Therefore, the authors suggested that other strategies could be implemented alongside the subsidy to incentivize farmers to engage in sustainable coffee production while also bridging the gap between independent farmers and TNCs.

Additionally, multiple research in Brazil attested to the fact that subsidies can pose a threat to the environment as it can promote unsustainable farming practices such as using agrochemicals and exploiting the soil. This is further worsened by economic objectives where the government mainly focuses on profit maximization instead of sustainability (Gorvitz, 2021; Bonn, n.d.).

Vietnam on the other hand, offers grants and incentives to identify climate-tolerant coffee varieties, such as Robusta, intending to protect production during climate changes, particularly the risk of rising temperatures by 2050, which can affect traditional coffee-growing areas (Pham et al., 2024).

Hence, the literature review provides a comprehensive understanding of how subsidies in place have supported independent farmers. While it has played a role in stabilizing farmers' income, the long-run effects remain questioned by critics. Additionally, existing literature has cited the economic benefits and environmental risks that stems from subsidies. However, there are limited direct comparisons between Brazil and Vietnam specifically and their subsidies' effectiveness which this study plans to address.

3. Methodology

This research compares the impact of governmental subsidies on smallholding coffee farmers across multiple dimensions for the two major coffee producers in the world, Brazil and Vietnam. These two countries are the focus of this study because they rank first and second, respectively, as the top coffee-producing countries. Exporting tons of coffee daily, their policies not only influence the livelihoods and development of rural areas within their nations, but also shape coffee's global market. As a result, other coffee producing nations are also affected by the policy decisions of these two countries. It is expected that the comparative design will reveal relevant insights not only for these two countries, but for other major coffee producers as well.

The data was mainly gathered from secondary sources focusing on both quantitative and qualitative impacts of government subsidies on the market and socio-environment to provide a broad view on the topic. To answer the research question mentioned above, this sources include:

1) Academic sources

a) Academic sources were identified through Google Scholar using keywords such as “coffee subsidies Brazil Vietnam,” “independent coffee farmers policy,” and “independent agriculture support.” Sources published between 2015-2024 will be prioritized to ensure current policy relevance.

2) Government publications

a) Official policy documents, national statistics, and legislative records from the government of both countries were used to understand the official scope and intent of subsidy programs provided to independent farmers.

3) Industry sources

a) Reports from coffee trade associations, NGOs, and development organizations provided a different perspective and possibly some critics.

For each category, at least 3 credible sources have been used with an emphasis on those with empirical data and policy evaluations. The author’s background, publication reputation, and validity of the research will all be considered to prove source credibility.

In this study, the main method used is PESTLE (Political, Economic, Social, Technological, Legal, Environmental). PESTLE is the appropriate framework for this study because it allows for a systematic and multi-dimensional assessment of the factors that influence the effectiveness of coffee subsidies. For example:

- Political
- This aspect will focus on the government structure and political dynamics that influence the distribution of subsidies and support programs, specifically, whether resources are equitably allocated to independent coffee farmers, or whether they are unequally captured by large corporations through political lobbying or networks.
- Economic
- The paper will economically assess the direct and indirect impacts of subsidy programs for farm-level profitability, cost structures, and household income stability.
- Social
- This aspect will address the effects of subsidy policies on farmers livelihoods, social equity, and overall community welfare. Essentially, this will evaluate whether government support impacts living standards, education opportunities, and healthcare access among farmers.
- Technological
- This analysis will explore whether subsidies are connected to the adoption of tools and practices that are productive and modern, such as improved irrigation systems, mechanized harvesting, or access to agricultural extension services.
- Legal
- This legal dimension will analyse the policy frameworks such as accessibility, clarity, and enforceability of rules. It will examine whether these policies create more barriers for independent farmers, such as complex application processes,

documentation requirements, or limited access to legal recourse.

- Environmental
- This category will focus on the sustainability implications of subsidy programs, especially, biodiversity preservation, land use practices, water resource management, and carbon emissions. Whether subsidies incentivize environmentally sustainable farming techniques or encourage practices that value efficiency over environment.

All collected data will be sorted into corresponding PESTLE categories and synthesized in a table to effectively compare differences directly between Brazil and Vietnam. The final analysis and evaluation will focus on determining whether policies support independent farmers or do the opposite and benefit larger corporations.

To ensure reliability and avoid purely narrative judgments, outcomes were categorized under clear decision rules. Results will be labeled supportive if they showed a positive trends in at least one of three indicators:

- Rising or stable farmer income
- Increased adoption of sustainable or productive technologies
- Improvements in environmental metrics

Conversely, results showing the opposite will be labeled as unsupportive

However, note that as this study relies entirely on secondary data, some results might be constrained by gaps in the available statistics, inconsistent reporting standards, and potential bias in sources online.

4. Results

4.1. Political

In Vietnam, policies that support coffee production remain fragmented with private firm regulations (Pham, 2023). A key initiative is the Credit Policy for Agricultural and Rural Development (Decree 55/2015/ND-CP), where independent farmers can borrow up to VND 150 million/hectare for replanting (with 8-year terms) or VND 80 million/hectare for renovation (4-year terms (Hai et al., 2024). On the other hand, for Brazil, subsidies designed bias large firms while independent firms struggle against institutional barriers despite programs like Program for Strengthening Family Farming (PRONAF) in place to support (Bonn, n.d.). In addition, the Coffee Economy Defence Fund (FUNCAFE) granted BRL 7.18 billion for the 2025/2026 Crop Year to decrease production costs, increase commercialization, working capital for the cooperative, and recovery of damaged plantations. However, independent farmers continue to face difficulties accessing these funds due to complex eligibility criteria and limited administrative capacity (Agrolink, 2025).

4.2. Economic

Independent farmers in Vietnam dominate Robusta production around 80% - 90% and lead global production (Environment, 2021; Nguyen, 2025), but although

with an export growth of \$ 5.32 billion and 1.45 million tons in 2024, sustainability is threatened by aging crops, credit access, and price volatility (Uyen, 2024; Theme-Bucket, 2024). Similarly, Brazilian independent farmers produce 40% of coffee but lack access to subsidies and face currency depreciation which reduces their profitability (Souza & Albuquerque, 2023). PRONAF has also attempted to support 2 million families but failed to address systemic issues including exacerbating inequality between independent and large farmers (Jarvis, 2012; Souza & Albuquerque, 2023).

4.3. Social

While farmers in Vietnam struggle with increased costs due to high pesticide use and low income (Hani and Hani, 2024), the Brazilian farmers received support from the government with credit and technical assistance. This influenced farmers' livelihoods and reduced rural poverty. However, similarly to Vietnam, Brazilian independent farmers with less than 20 hectares of land still face challenges with income equality (World Bank Group, 2013; Daily, 2023).

4.4. Technological

Farmers in Vietnam are heavily dependent on traditional farming methods without technology, part of this is because the Central Highlands have steep terrains making mechanized harvesting uncommon. Furthermore, they also lack the finances and training to be able to incorporate technology in their farming methods. In contrast, Brazilian farmers have better technology availability through the ABC + Programs but it still remains costly resulting in limited adoption among the farmers (20 - 30%) (Morrison, 2024).

4.5. Legal

Independent farmers in Vietnam are limited to capital access due to their lack of full property rights preventing them from using their land as collateral. Additionally, very few independent farmers receive the official certification for "Buôn Ma Thuột Coffee" from the GI registration authority (IP Vietnam, 2022; Pham, 2023). Conversely, Brazilian independent farmers can limitlessly borrow money by mortgaging their land and taking out bank loans as well as enroll in government programs like PRONAF (World Bank Group, 2013). But similarly to Vietnam, farmers cannot achieve official certification since they cannot afford the required inspections and documentation.

4.6. Environmental

Due to the lack of access to subsidies, the intensive farming techniques that Vietnamese farmers use lead to soil erosion and damaging the environment (IWMI, 2018; Riano, 2022). Brazil experienced the same outcome as Vietnam but because of the structural barriers to obtaining certification (Pinto et al., 2014). However, the government recognizes this and implemented programs in smart agriculture

that are enabling farmers to cut water usage by 30%, contributing to preserving the environment (Morrison, 2024).

Looking at **Figure 1**, there are clear differences in how Vietnam and Brazil's government implement subsidies to support independent farmers. Their structural framework faces different problems where Brazil struggles with cost barriers while Vietnam mainly struggles with accessibility barriers. However, even with different struggles, it is clear that the subsidies in both countries are not supporting independent farmers to its fullest extent.

To ensure reliability and transparency in the PESTLE analysis, a total of 36 documents were reviewed with 6 political, 7 economic, 6 social, 5 technological, 6 legal, and 6 environmental sources. Documents were selected with the publication date (2000-2024), accessibility, and direct relevance to independent coffee production in Vietnam and Brazil in consideration. Sources that were used included academic research, official government policy papers, NGO reports, and industry profiles.

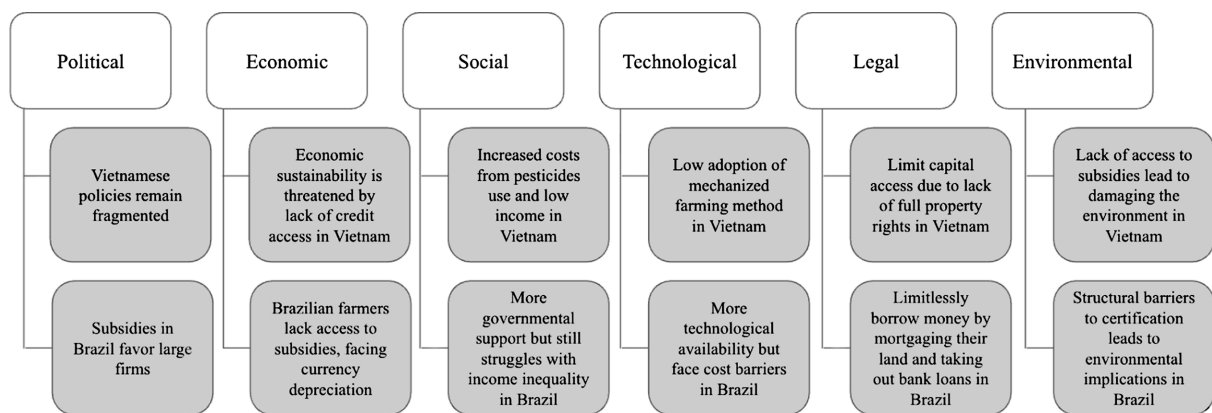


Figure 1. PESTLE analysis summary.

5. Discussion

As seen from the results, the discussion will interpret the findings not as isolated results of each country but as a whole on agricultural subsidies and sustainability.

In this context, “support” is more closely aligned to a sustained, multidimensional framework or assistance that addresses economic, technical, institutional, and social barriers simultaneously, rather than just financial aid. Therefore, supporting these farmers means ensuring they have access to resources, knowledge, markets, and institutional representation in ways that allow them to thrive, rather than just sustaining themselves. This involves designing policies that are accessible and specific to local needs, rather than favoring large-scale producers. Without such comprehensive policies, independent farmers will continue to struggle, and their integration into national and global value chains remains partial and precarious.

The results mentioned above support the suggested challenges faced by independent farmers in Vietnam and Brazil. While Vietnamese policies are fragmented, consistent with the broader trend in Southeast Asia, where private farms monop-

olize the market (Pham, 2023; IDH, 2019), Brazil's initiatives, such as PRONAF, attempt to integrate independent farmers within the market (Souza & Albuquerque, 2023). According to economic data, Vietnam is the leader in the Robusta coffee market, yet its independent farmers experience declining production and market price fluctuations (ThemeBucket, 2024). Similarly, the subsidy system in Brazil favors large agricultural producers, while independent farmers, who represent 40% of total output, continue to face a marginalized status (Coffee Producer Country Profile: Brazil, n.d.). These findings emphasize the policy gap across countries where government interventions often unintentionally prioritize economic growth and export competitiveness over long-term resilience. Future subsidies could have stronger policy coordination, expand access to credit and training for independent farmers, and improve market transparency to align the national agricultural goals with the economic sustainability of independent farming systems better.

As a result, the findings all suggest that although subsidies' design were different for each country, both Vietnam and Brazil had similar outcomes where the subsidies favored large corporations and independent farmers remained vulnerable. This is because subsidies often have legal requirements that are needed to qualify for financial support, such as a minimum production volume, export capacity, or creditworthiness, which all inherently bias large-scale producers. In Brazil, the requirements to join the PRONAF programs are to hold a valid Declaration of Aptitude for PRONAF (DAP) and to operate within a maximum of four fiscal modules, which can exclude smaller farmers in rural areas ("Family Farming in Brazil: Inequalities in Credit Access"). Meanwhile, independent farmers face financial barriers in Vietnam. To qualify for agricultural and investment incentives, the government requires projects to invest at least VND 6,000 billion (approximately USD 250 million) within three years or employ over 3,000 workers ("Vietnam Investment Handbook 2021"). These requirements across two countries illustrate how subsidy frameworks, though intended to promote agricultural development, often widen the inequality by systematically excluding independent farmers from investment and financial support from the government.

However, the government must be aware of the implications of subsidies and credit access, as they can lead to farmers growing reliant rather than actively responding to signals from the market or adopting natural resource management systems. The dependency on subsidies can lead to producer inefficiency, no innovation, and environmental stewardship. This aligns with the study conducted by Galbi, where federal agricultural credits and subsidies in Russia have impeded market-oriented reform in the agriculture sector rather than enhancing it. In the long run, the government will also find it difficult to withdraw or reform subsidy programs if needed without triggering resistance or destabilizing rural incomes. Therefore, future government interventions must be designed to combine immediate relief with structured guidance towards independence, to empower farmers without creating long-term reliance.

6. Evaluation

There are multiple strengths of this study that makes the analysis significant when considering the effect of subsidies on independent farmers: the PESTLE framework, the comparative design between Vietnam and Brazil, and the wide range of secondary sources.

First, using PESTLE to organize and present the information ensures that the evaluation does not focus solely on economics but instead considers the wide context of subsidies within climate change, market access, and institutional change.

Additionally, using a comparative analysis between Vietnam and Brazil allows for a clear analysis of the differences and similarities when implementing subsidies. Looking at the successes and shortcomings can guide policymaking to be more globally informed and design policies in a way that is supporting independent farmers and not favoring large corporations.

However, this research also has limitations that inhibit the generalization of the results. The methodology of the study relies entirely on secondary sources which leads to inherent biases from existing literature. For example, reports from the government may not disclose the full extent of the flaws of subsidies, while NGO publications might overstate the environmental inefficiencies to advocate for reform. The use of PESTLE also has a limitation as it focuses on the macro-level effects which overlook the local dynamics that can shape farming sustainability. The analysis is also heavily reliant on secondary data which restricts the ability to identify causal relationships about the direct effect of subsidy programs on independent farmers.

Furthermore, the study only compares two coffee exporting countries excluding other nations such as Colombia or Ethiopia, limiting the generalizability of the findings to the wider global coffee economy. The choice to only compare Brazil and Vietnam is due to the differences in data availability of other countries and to maintain analytical depth instead of the breadth within the scope of the study. Integrating more countries regarding this area could be achieved in future research by using secondary data sources or conducting data collections personally to provide broader comparative insights.

Hence, this study must be interpreted with awareness of the situational context because while the findings is a broad evaluation of the strengths and weaknesses of subsidy programs in Vietnam and Brazil, they may not be applicable to on a micro-level where it focuses on how the subsidies affect individual farmers with different circumstances. For future studies, the approach should be a mixed-method where it considers both macro-level effects and micro-level effects on independent farmers to provide a more multifaceted understanding of how the implementation of subsidies affect not only the group of farmers as a whole but their individual circumstances. Moreover, there should be incorporation of primary data collection including interviews or surveys with independent farmers to triangulate findings and strengthen the reliability of conclusions.

7. Conclusion

In conclusion, there were both similarities and distinct characteristics between the coffee sectors of Vietnam and Brazil. Politically, both governments intervened through subsidies attempting to integrate independent farmers but still favored large corporations. Economically, Vietnam's independent farmers dominate the coffee industry while Brazil's independent farmers experience reduced profitability due to systemic barriers of subsidies. Socially, Vietnam's use of pesticide poses a threat to human health and also increases cost, reversing the effects of subsidies, however, Brazil started to incentivize eco-friendly practices with a new subsidy program. In terms of technology, Brazil is much more technical while Vietnamese farmers still rely on traditional farming methods. Legally, Brazilian farmers have easier access to loan and micro-credit than Vietnamese farmers. Environmentally, Brazil has stronger sustainability programs but still faces deforestation concerns while Vietnam struggles with soil degradation and over reliance on intensive farming methods.

With the evaluation, it is important to highlight how the government can design programs in ways that holistically consider all the aspects to effect long-term viability of the coffee industry. Therefore, in the future, both Vietnam and Brazil need to strike a balance between environmental sustainability and economic competitiveness with better resource management, diversification into higher-value coffee varieties, and gradual mechanization to help lessen its environmental impact and allow independent farmers to thrive.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

References

- (n.d.). *Coffee Producer Country Profile: Brazil*.
<https://www.solidaridadnetwork.org/wp-content/uploads/2024/06/The-Grounds-for-Sharing-annex-Brazil.pdf>
- Agrolink (2025). *Government Allocates R\$ 7.18 Billion from Funcafé for 2025/2026 crop*. Tridge.
<https://www.tridge.com/news/government-allocates-r-718-billion-from-func-ghrhv>
- Bonn (n.d.). *The Grounds for Sharing a Study of Value Distribution in the Coffee Industry*.
<https://www.solidaridadnetwork.org/wp-content/uploads/2024/06/The-Grounds-for-Sharing-A-study-of-value-distribution-in-the-coffee-industry.pdf>
- Bozzola, M., Charles, S., Ferretti, T., Gerakari, E., Manson, H., Rosser, N., & von der Goltz, P. (2021). *The Coffee Guide Fourth Edition Trade Impact for Good*.
https://www.intracen.org/sites/default/files/uploadedFiles/intracenorg/Content/Publications/ITC_Coffee_4th_Report_20210930_web_pages.pdf
- Daily (2023). *GCP Brazil Study Outlines Living Wage Disparities among Growers*. *Daily Coffee News by Roast Magazine*.
<https://dailycoffeenews.com/2023/08/28/gcp-brazil-study-outlines-living-wage-disparities-among-growers/>
- Environment, U. (2021). *Coffee, Environmental Degradation and Smallholder Livelihoods*.

UNEP-UN Environment Programme.

- Gorvitz, J. (2021). *Coffee-Driven Deforestation in Brazil*. Commodity Trading Guru. <https://commoditytrading.guru/sustainability-ethics/coffee-driven-deforestation-in-brazil/>
- Hai, T. X., Nguyen The Anh, & Thuy, P. M. (2024). Developments in Vietnamese Coffee Production and Market from 2010-2025 and Some Recommendations. *Journal of Finance and Economics*, 13, 1-13. <https://doi.org/10.12691/jfe-13-1-1>
- Hani, J., & Hani, J. (2024). *Brewing a Better Future for Coffee Farmers*. Ksapa. <https://ksapa.org/brewing-a-better-future-for-coffee-farmers/>
- Huynh, T., & Popova, L. (2023). Effectiveness of Government Supported Policies in Vietnamese Coffee Industry Development. *Regionalnaya Ekonomika. Yug Rossii*, 3, 77-85. <https://doi.org/10.15688/re.volsu.2023.3.8>
- IDH (2019). *Vietnam: Public-Private Agreement to Support Coffee Farmers to Adapt to Climate Change*. IDH—The Sustainable Trade Initiative. <https://idh.org/news/vietnam-public-private-agreement-to-support-coffee-farmers-in-adapting-to-climate-change>
- IP Vietnam (2022). *Amendment of Geographical Indication Registration Certificate “Buon Ma Thuot” for Coffee Products*. IP Vietnam. https://ipvietnam.gov.vn/web/english/domestic-ip-activities/-/asset_publisher/ZMuTgR44COLR/content/amendment-of-geographical-indication-registration-certificate-buon-ma-thuot-for-coffee-products?inheritRedirect=false
- IWMI (2018). *More for Less: Improving Groundwater Use for Increased Coffee Production in Vietnam*. Research Program on Water, Land and Ecosystems. <https://archive.iwmi.org/wle/news/more-less-improving-groundwater-use-increased-coffee-production-vietnam/>
- Jarvis, L. S. (2012). The Welfare Implications of Brazil’s Coffee Export Price Subsidies during the ICA. *Agricultural Economics*, 43, 19-32. <https://doi.org/10.1111/j.1574-0862.2012.00617.x>
- Morrison, O. (2024). *The Smart ag Projects Helping Brazil’s Coffee Farmers Save up to 30% of Their Water*. AgTechNavigator.com. <https://www.agtechnavigator.com/Article/2024/08/14/The-smart-ag-projects-helping-Brazil-s-coffee-farmers-save-up-to-30-of-their-water/>
- Nguyen, M. N. (2025). *Vietnam: Total Robusta Coffee Production 2021*. Statista. <https://www.statista.com/statistics/1020945/vietnam-total-robusta-coffee-production/>
- Pham, H., Antagia, A., & Salazia, C. (2024). *Vietnam’s Drive Towards Climate-Resilient Robusta Coffee*. US ABC. Usasean.org. <https://www.usasean.org/article/vietnams-drive-towards-climate-resilient-robusta-coffee>
- Pham, N. (2023). Vietnam Coffee Market: Consumers, Challenges, and Prospects. *Vietnam Briefing News*. <https://www.vietnam-briefing.com/news/vietnam-coffee-market-a-deep-dive-into-its-consumers-challenges-and-prospects.html/>
- Pinto, L. F. G., Gardner, T., McDermott, C. L., & Ayub, K. O. L. (2014). Group Certification Supports an Increase in the Diversity of Sustainable Agriculture Network-Rainforest Alliance Certified Coffee Producers in Brazil. *Ecological Economics*, 107, 59-64. <https://doi.org/10.1016/j.ecolecon.2014.08.006>
- Riano, C. (2022). *Reducing the Bitterness of Coffee from Vietnam’s Central Highlands*. EU REDD Facility. <https://euredd.efi.int/reducing-bitterness-coffee-vietnams-central-highlands/>

- Sellare, J., Meemken, E., & Qaim, M. (2020). Fairtrade, Agrochemical Input Use, and Effects on Human Health and the Environment. *Ecological Economics*, 176, Article 106718. <https://doi.org/10.1016/j.ecolecon.2020.106718>
- Siles, P., Cerdán, C. R., & Staver, C. (2022). Smallholder Coffee in the Global Economy—A Framework to Explore Transformation Alternatives of Traditional Agroforestry for Greater Economic, Ecological, and Livelihood Viability. *Frontiers in Sustainable Food Systems*, 6, Article ID: 808207. <https://doi.org/10.3389/fsufs.2022.808207>
- Souza, P., & Albuquerque, A. (2023). *Family Farming in Brazil: Inequalities in Credit Access*. CPI. <https://www.climatepolicyinitiative.org/publication/family-farming-in-brazil-inequalities-in-credit-access/>
- ThemeBucket (2024). *Vietnam's Coffee Exports to the EU Dropped by 40% in September 2024*. Asemconnectvietnam.gov.vn. <https://asemconnectvietnam.gov.vn/default.aspx?ZID1=8&ID8=139944&ID1=2>
- Uyen, P. (2024). *Vietnamese Coffee Industry Sets New Revenue Record*. Vietnam Investment Review—VIR. <https://vir.com.vn/> <https://vir.com.vn/vietnamese-coffee-industry-sets-new-revenue-record-116909.html>
- Watson, K., & Achinelli, M. L. (2008). Context and Contingency: The Coffee Crisis for Conventional Small-scale Coffee Farmers in Brazil. *The Geographical Journal*, 174, 223-234. <https://doi.org/10.1111/j.1475-4959.2008.00277.x>
- World Bank Group. (2013). *Support to Coffee Farmers Awakens Development in Rural Sao Paulo, Brazil*. World Bank. <https://www.worldbank.org/en/news/feature/2013/09/25/Brazil-fair-trade-coffee-farming>
- Yusuf, S. (2021). *Central Bank of Nigeria Economic and Financial Review Refocusing Agricultural Subsidy for Food Security in Nigeria*. <https://www.cbn.gov.ng/Out/2024/RSD/Refocusing%20Agricultural%20Subsidy%20for%20Food.pdf>