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



RSPO CERTIFICATION IN LATIN AMERICA AND ASIA: CONTEXTUAL DYNAMICS, CONVERGENCES, AND CHALLENGES



**CERTIFICAÇÃO RSPO NA AMÉRICA LATINA E ÁSIA:
DINÂMICAS CONTEXTUAIS, CONVERGÊNCIAS E DESAFIOS**

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ABSTRACT

Palm oil has become one of the world's leading tropical crops, driven by high productivity and international demand for food, cosmetics and biofuels. Although originally from West Africa, its expansion has occurred mainly in Southeast Asia and Latin America. However, the environmental and social impacts of this expansion have led to the creation of voluntary certification schemes, such as the RSPO (Roundtable on Sustainable Palm Oil), established in 2004. This study aims to comparatively analyze RSPO certification processes in Brazil, selected countries in Latin America and Southeast Asia, focusing on regional specificities, implementation challenges and compliance standards, based on RSPO audit reports. The analysis reveals striking differences: Latin American units presented more non-conformities, especially in labor rights and occupational safety, while in Asia the main problems were concentrated in environmental management and documentation. Latin America stood out for its use, mainly of the "Identity Preserved" model in traceability, greater presence of social projects and greater depth in stakeholder consultations. The inclusion of small producers is more structured in Latin America, while in Asia, barriers such as land insecurity and high certification costs persist as barriers for small producers. Despite formal compliance with RSPO criteria, the effectiveness of certification varies according to the local institutional and socioeconomic context. Finally, the study concludes that, in addition to international standards, it is essential to consider the territorial and political arrangements that shape the implementation of sustainability in the palm oil sector.

Keywords: Environmental Governance; Global value chains; Market mechanisms; RSPO certification

RESUMO

O óleo de palma tornou-se uma das principais culturas tropicais do mundo, impulsionado pela alta produtividade e pela demanda internacional por alimentos, cosméticos e biocombustíveis. Embora originário da África Ocidental, sua expansão ocorreu principalmente no Sudeste Asiático e na América Latina. No entanto, os impactos ambientais e sociais dessa expansão levaram à criação de esquemas voluntários de certificação, como a RSPO (Mesa Redonda sobre Óleo de Palma Sustentável), estabelecida em 2004. Este estudo tem como objetivo analisar comparativamente os processos de certificação RSPO no Brasil, em países selecionados da América Latina e do Sudeste Asiático, com foco nas especificidades regionais, nos desafios de implementação e nos padrões de conformidade, com base nos relatórios de auditoria da RSPO. A análise revela diferenças marcantes: as unidades latino-americanas apresentaram mais não conformidades, especialmente em direitos trabalhistas e segurança ocupacional, enquanto na Ásia os principais problemas se concentraram na gestão e documentação ambiental. A América Latina se destacou pela utilização, principalmente do modelo "Identidade Preservada" na rastreabilidade, maior presença de projetos sociais e maior profundidade nas consultas às partes interessadas. A inclusão de pequenos produtores é mais estruturada na América Latina, enquanto na Ásia, barreiras como a insegurança fundiária e os altos custos de certificação persistem como obstáculos para os pequenos produtores. Apesar do cumprimento formal dos critérios da RSPO, a eficácia da certificação varia de acordo com o contexto institucional e socioeconômico local. Por fim, o estudo conclui que, além dos padrões internacionais, é essencial considerar os arranjos territoriais e políticos que moldam a implementação da sustentabilidade no setor de óleo de palma.

Palavras-chave: Governança Ambiental; Cadeias Globais de Valor; Mecanismos de Mercado; Certificação RSPO

1 INTRODUCTION

Oil palm (*Elaeis guineensis* and varieties) stands out as a notable example of recent agricultural success, characterized by its high productivity and diverse industrial applications, particularly in food, cosmetics, and biofuels. Although known since the European Industrial Revolution, the crop only achieved global economic relevance in the 20th century, propelled by increasing international demand and advances in agricultural management (Chew *et al.*, 2021; Mayes, 2020).

Native to West Africa, oil palm was initially promoted as an export crop during the colonial era and later introduced to tropical regions in Asia and Latin America (Lusiana *et al.*, 2023; Meijaard *et al.*, 2020). In Southeast Asia, especially Malaysia and Indonesia, the crop was introduced in the 1960s and 1970s, and quickly evolved into the basis of a highly profitable industry. These countries emerged as global leaders in palm oil production due to strategic industrial policies, investments in infrastructure, and prior experience with export-oriented monocultures (Schroder ; Hertel ; Tyner, 2019 ; Zheng; Abu, 2019).

Between 1974 and 2007, oil palm production in Asia rose from less than 3 million to nearly 40 million metric tons annually, with the cultivated area expanding from 3.6 million to 21.4 million hectares (Ayompe ; Schaafsma ; Egoh, 2021). However, this rapid expansion generated significant environmental pressures, including deforestation of tropical rainforests and increased carbon emissions, placing palm oil among Forest-Risk Commodities (FRCs), alongside soy, beef, and timber (Cosimo *et al.*, 2024).

In Latin America, oil palm was introduced as early as the 17th century by enslaved Africans, but large-scale cultivation began only in the mid-20th century, initially through efforts by the United Fruit Company in Central America (Richardson, 1995; Rhoades, 2011). In recent decades, countries such as Colombia, Ecuador, Peru, Honduras, and Guatemala have emerged as important producers, establishing Latin America as the world's second-largest palm oil-producing region, accounting for approximately 7% of global output. The cultivated area in this region has nearly doubled over the past decade (FAO, 2020; González-Delgado; Barajas-Solano; Leon-Pulido, 2021).

Despite economic growth, the sector faces technical, logistical, and environmental challenges, exacerbated by increasing international market demands for sustainable practices (Vijay *et al.*, 2016). To address these concerns, various social and environmental certification systems

have arisen, most notably the Roundtable on Sustainable Palm Oil (RSPO), established in 2004 to promote sustainability standards and mitigate the adverse impacts of palm oil production (Tey *et al.*, 2021). In this sense, RSPO can be understood not only as a technical certification mechanism, but as an instrument of hybrid governance that articulates public and private actors in the regulation of agricultural commodities at a global scale (Johnson, 2022). Embedded in the dynamics of global value chains and transnational production networks, certification reflects the patterns of contestation and coordination characteristic of contemporary political economy and economic geography, in which private standards and state regulations coexist and overlap in socio-environmental governance.

Within this context, this article aims to comparatively analyze RSPO certification processes in Brazil, selected Latin American countries, and Southeast Asia, focusing on regional specificities, implementation challenges, and patterns of compliance, based on RSPO audit reports. This study contributes to the debate on sustainability and transnational regulation by emphasizing the need for understanding certification schemes within their specific contexts rather than generalizing their effectiveness or impact.

2 METHODOLOGY

This study adopts a qualitative, document-based, and comparative approach to analyze the certification processes of the Roundtable on Sustainable Palm Oil (RSPO) across different regional contexts. The analysis focuses on certified units located in selected countries in Latin America and Asia, using publicly available audit reports published on the official RSPO website.

Countries and audited units were selected intentionally based on their significance in global palm oil production and their regional representativeness. The dataset comprises complete reports from 2023 and 2024, covering main assessments, recertification, and surveillance audits.

Data collection involved systematic extraction of information from public audit reports, with particular attention to fulfilled and unfulfilled criteria, descriptions of major and minor non-conformities, Corrective Action Plans (CAPs), community participation, socio-environmental impacts, and remediation practices.

The collected data were organized using NVivo software, version 12.2, enabling the import, coding, and classification of diverse data types. This facilitated the identification of recurring themes, patterns, and correlations. The study compared the frequency and types of non-conformities, proposed corrective actions, challenges faced by certified units, and best practices, allowing a critical evaluation of RSPO certification's effectiveness and applicability under varying socio-environmental conditions.

3 RESULTS AND DISCUSSION

3.1 REGIONAL PROFILE OF NON-CONFORMITIES IN ASIA AND LATIN AMERICA

Based on the analysis of 32 audit reports—16 from Latin America (Mexico, Colombia, Brazil, and Costa Rica) and 16 from Asia (Indonesia, Malaysia, and Thailand)—all assessed operations were found to be in compliance with the 2018 RSPO Principles and Criteria. This compliance includes adherence to specific national interpretations and complementary standards, such as the requirements for Supply Chain Certification (SCC) and New Plantings Procedures (NPP).

Despite equal representation in the sample, Latin American operations accounted for 45.78% of Major Non-Conformities (NCs) and 65.08% of Minor Non-Conformities, whereas Asian operations were responsible for 54.22% of Major NCs and 34.92% of Minor NCs. On average, each Latin American unit recorded 2.38 Major NCs and 5.00 Minor NCs, compared to 2.81 Major NCs and 2.69 Minor NCs per unit in Asia.

In terms of thematic distribution of NCs (Table 01), Latin American operations exhibited greater challenges related to labor rights, including management of outsourced workers, contractual obligations, use of Personal Protective Equipment (PPE), and occupational health and safety—with 44 labor-related NCs in total. Conversely, Asian operations presented more major NCs in environmental management (17 versus 7 in Latin America) and governance-related issues, highlighting persistent challenges in documentation and compliance with environmental regulations and internal procedures. Social participation and grievance mechanisms appeared less frequently in both regions, though Latin America still registered higher counts.

Table 1 – Number of Major and Minor Non-Conformities by thematic category and region (Latin America and Asia).

Theme	Major NCs (LA)	Minor NCs (LA)	Major NCs (Asia)	Minor NCs (Asia)
Labor Rights	18	26	11	10
Environmental Management	7	18	17	12
Governance and Transparency	9	21	14	17
Social Participation & Grievances	3	11	2	4
Other	1	4	1	0

Source: Compiled by the authors based on RSPO audit reports (2024)

In Asian countries, especially in Indonesia, land tenure insecurity remains a major barrier to RSPO certification. Legal ambiguities surrounding land ownership intensify conflicts between companies and local communities. This challenge is especially critical for independent smallholders, who often lack formal land titles, making it difficult to meet RSPO requirements related to traceability, Free, Prior and Informed Consent (FPIC), and territorial management (Choiruzzad; Tyson; Varkkey, 2021; Vos *et al.*, 2023).

In contrast, Latin America's main issues involve labor rights violations, such as non-payment of minimum wages, lack of formal contracts, poor occupational health and safety, and the absence of effective anti-discrimination, harassment, and child labor policies. As Pacheco *et al.* (2020) note, despite regulatory advancements in several Latin American countries, precarious labor conditions persist, particularly in rural areas where oil palm cultivation is concentrated, highlighting a significant gap between legal frameworks and their practical enforcement. This undermines full compliance with international standards required by certification.

The situation becomes even more complex when considering the global distribution of certified areas: approximately 75% of certified land is concentrated in just two Asian countries—Indonesia and Malaysia—which dominate global production of certified palm oil (RSPO, 2024). This geographically uneven distribution underscores Asia's central role in the RSPO certification system, while simultaneously highlighting the structural asymmetries faced by regions such as Latin America. Despite important advances in traceability and smallholder inclusion, systemic challenges persist (Johnson, 2022; O'Reilly; Varkkey, 2024).

While the 2018 RSPO Principles and Criteria are often more rigorous than national legislation, this rigor exposes gaps between international

benchmarks and local practices and. According to Brandi *et al.* (2015), certification effectiveness is limited where institutional capacity is weak. In contexts with fragile enforcement of labor and environmental norms, full compliance with RSPO standards becomes significantly more difficult.

In the Latin American context, Brazil exemplifies this dynamic, having one of the most comprehensive labor legislations guaranteeing minimum rights, occupational safety, and the eradication of child labor. However, audits have identified a significant number of non-conformities related to these safeguards. This illustrates how strong legal frameworks alone are important, but insufficient without consistent enforcement and an organizational culture committed to compliance for RSPO certification to be truly effective (Pacheco *et al.*, 2020).

3.2 CHAIN OF CUSTODY, ENVIRONMENTAL CONSERVATION, AND SMALLHOLDER INCLUSION

The chain of custody models identified in the audit reports were predominantly Identity Preserved (IP), which requires complete physical segregation of certified palm oil from plantation to final product, and Mass Balance (MB), which allows mixing of certified and non-certified oil along the supply chain, provided proportional volume control is maintained (RSPO, 2023). In Latin America, all audited units reported using the IP model, ensuring full traceability of certified fruit. In contrast, Asian operations employed a mix of IP and MB, with some reports failing to clearly specify the model used.

The reports also highlighted the existence and protection of High Conservation Value (HCV) areas, which are critical for biodiversity and demonstrate companies' environmental sustainability commitments. In Latin America, notable initiatives such as those in Colombia have designated over 400 hectares for conservation, supported by systematic monitoring and community involvement. In Asia, HCV areas were also cited, though with less detail on management strategies and local engagement efforts.

In contrast to the extensive deforestation historically associated with oil palm expansion in Southeast Asia, particularly in Indonesia and Malaysia, palm cultivation in Latin America has mostly expanded into already converted lands, such as degraded pastures and agricultural areas (Castellanos-Navarrete; Castro; Pacheco, 2021). In Asia, the rapid expansion

since the 1980s—driven by global demand and government incentives—often involved large-scale clearing of tropical forests, frequently using fire, resulting in biodiversity loss, carbon emissions, and socio-environmental conflicts (Rahman *et al.*, 2025; Turner; Snaddon, 2023;).

A recurring theme in Latin American audit reports is the emphasis on integrating smallholders and third-party suppliers into certified palm oil supply chains, reflecting efforts toward social inclusion and productive diversification. Certified units in Colombia and Costa Rica, for example, reported between 18 and 60 independent suppliers linked to the certified chain, receiving technical support and undergoing internal audits as part of certification requirements.

Oil palm production in Latin America follows three main trajectories: (1) smallholder-led expansion, where small farmers manage most of the cultivated area (as in Honduras and Mexico, with 61% and 53%, respectively); (2) mixed models with a relatively balanced presence of small and large producers (e.g., Ecuador, Peru, and Costa Rica); and (3) expansion led by large agro-industrial enterprises, with corporate plantations dominating the sector, as seen in Guatemala, Colombia, and Brazil (Castellanos-Navarrete; Castro; Pacheco, 2021).

These differing trajectories reflect each country's political economy, which shapes agrarian change and development policies. In countries like Guatemala, Colombia, and Brazil, the dominance of large-scale models stems from historically unequal land structures, tenure regimes favoring land concentration, and public policies that often prioritize large-scale producers (Córdoba *et al.*, 2018).

The inclusion of smallholders is often pursued through the paradigm of “inclusive business,” which seeks to replace high public rural development spending with public-private partnerships. This model aims to integrate small farmers into agribusiness supply chains, portraying itself as a “win-win” solution benefiting local livelihoods, the private sector, and rural economies. Examples include Guatemala's ProRural Program, Brazil's Sustainable Palm Oil Production Program, and Colombia's Alianzas Productivas framework (German *et al.*, 2020).

In Asia, although the presence of third-party suppliers is acknowledged, there is less emphasis on structured support or certification programs targeting smallholders. Most reported actions

focus on consultation and institutional stakeholder engagement, with little detail on consistent policies to integrate smallholders into RSPO certification schemes. This gap may hinder the certification's effectiveness in fostering a more inclusive and equitable supply chain.

Smallholders in Asia face a range of challenges in obtaining certification, particularly due to financial constraints and the high costs of the certification process. Key barriers include the need to organize collectively and prove legal land ownership, which is crucial to avoid land tenure conflicts and prevent cultivation in forested areas. Furthermore, smallholders often struggle to implement standardized agricultural practices and maintain accurate productivity records, which are essential for traceability. These challenges are compounded by the perception that initial and recurring certification costs often outweigh the expected economic benefits (Tey *et al.*, 2020; Vos *et al.*, 2023).

More broadly, several studies have shown that the most significant cost components in independent smallholder certification are third-party audits, legal documentation requirements, and training programs. Among these, land legalization and document management rank as the second most expensive category after audit costs, making them major barriers to smallholder inclusion in RSPO-certified supply chains (Irawan *et al.*, 2024).

3.3 SOCIAL PARTICIPATION, CONSULTATIONS, AND STAKEHOLDER PERCEPTIONS

An analysis of RSPO audit reports from certified units in Asia and Latin America reveals valuable qualitative information derived from the mandatory stakeholder consultations conducted as part of the certification process. These consultations aim to assess the perceptions of diverse interest groups—including workers, trade unions, local communities, environmental NGOs, public agencies, and fruit suppliers—regarding the socio-environmental compliance of audited operations.

Regional differences in stakeholder engagement are summarized in Frame 1, which highlights the greater depth and diversity of interactions in Latin America compared to the more institutionally focused approach observed in Asia.

Frame 1 – Regional Differences in Stakeholder Feedback.

Aspect	Latin America	Asia
Depth of consultations	High – presence of internal committees, local NGOs, Indigenous, urban, and rural communities	Medium – primarily focused on workers and institutional compliance
Transparency and responsiveness	High – companies conducted guided visits with communities and opened technical dialogues	Less detailed – no reports of open technical visits with communities
Reported social projects	Diverse: education, health, infrastructure, culture, and gender	Less frequently mentioned or lacking detail
Presence of complaints	Medium – when present (e.g., water use), evidence of remediation was reported	None recorded

Source: Compiled by the authors based on audit reports (2024).

Although both regions involve similar stakeholder groups, Latin America stands out for adopting more inclusive and decentralized consultation practices. These are evidenced by the establishment of internal thematic committees such as those focused on gender, occupational safety, and community relations, as well as the active participation of indigenous peoples and urban communities. In contrast, stakeholder engagement in Asia tends to be more limited in scope, often emphasizing the institutional verification process centered on occupational health and safety, with comparatively less attention to broader social or environmental initiatives.

Johnson (2022), in his analysis of RSPO certification impacts in Ecuador, identified significant changes in governance within the sector. Initially, certification led to more technical, formalized relationships between companies and communities. This evolved into a hybrid model of governance, marked by collaboration among businesses, government institutions, NGOs, and community representatives in decision-making. Eventually, governance efforts became more regionalized, adopting territorial approaches to address socio-environmental impacts more holistically.

Nevertheless, participatory governance continues to face structural limitations. While oil palm smallholders—particularly migrant settlers—are partially integrated into the production model, Indigenous and Afro-descendant communities living in forest frontier regions are often excluded. These groups, typically organized under communal land tenure systems and reliant on forest-based livelihoods, have limited presence in certification

schemes. Mexico stands out as an exception, where the “ejido system”¹ has received state support for oil palm cultivation. In most other countries, however, the inclusion of smallholders within communal land contexts remains rare (Ojeda *et al.*, 2015).

4 CONCLUSION

The analysis of audit reports reveals that, although certified production units meet the minimum requirements for RSPO certification, substantial regional differences persist in terms of non-conformities, social inclusion, traceability, and stakeholder engagement. By demanding standards that often exceed national legislation, RSPO certification exposes underlying structural and institutional weaknesses—particularly in contexts where enforcement capacity or technical support is limited.

Latin America stands out for adopting a more participatory and inclusive approach; however, it continues to face significant challenges in ensuring labor rights and occupational protections. In contrast, Asian operations tend to emphasize documentary compliance but often lack depth in the implementation of social and environmental practices. Both regions exhibit notable progress as well as critical limitations that must be addressed in the development of public policies and corporate strategies aimed at sustainability in the palm oil sector.

Overall, while the RSPO provides a valuable framework for promoting more sustainable and socially responsible palm oil production, its implementation remains uneven across regions. Ultimately, the effectiveness of the certification depends not only on formal adherence to its criteria but also on the ability of certified units to meaningfully internalize and operationalize its principles within diverse socio-environmental contexts.

The comparative analysis shows that the RSPO does not produce uniform outcomes across the different contexts in which it is implemented. On the contrary, its appropriation is deeply shaped by local institutional frameworks, pre-existing agrarian structures and the degree of engagement by social actors and state. This heterogeneity of effects confirms the initial hypothesis of the study, that voluntary certifications such as the RSPO operate as instruments of environmental governance that do not impose a

¹ The ejidal system in Mexico refers to a model of rural property where land is held communally by rural communities, often based on indigenous traditions and the heritage of the Mexican Revolution (Contreras, 2024).

single standard, but are reinterpreted and reconfigured according to local and regional dynamics.

From the perspective of development and global value chain governance, the results indicate that RSPO certification does not operate merely as a technical mechanism for inducing sustainability, but as part of a transnational regulatory arrangement that asymmetrically structures costs, benefits, and compliance capacities among countries and production actors. In this sense, sustainability emerges as a politically mediated and territorially uneven process, in which global standards are reinterpreted according to local institutional conditions. This highlights that the governance of global commodity chains involves not only technical coordination, but also disputes over legitimacy, inclusion, and regulatory power, revealing the structural limits of voluntary certifications as instruments capable of promoting deep and homogeneous transformations in development patterns.

For future research, it is suggested to further develop comparative analysis at the country and production-unit level, in order to more precisely capture intra-regional variations and the effects of different institutional arrangements on certification implementation.

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