



# The impact of **voluntary sustainability standards** on small-scale farmers in **global commodity chains**

## The rise of voluntary sustainability standards

The United Nations' Sustainable Development Goals (SDGs) explicitly highlight the importance of sustainable production and consumption patterns (Goal 12). Initiatives which certify products against set social and environmental standards play a central role in this regard. Since their emergence in the mid-1990s, voluntary sustainability standards (VSS) have been propelled from specialty niches into mainstream markets due to rising demand among consumers, buyers and producers to address socio-economic, environmental and food safety concerns. More than 400 VSS are being used worldwide, covering a large number of products, including forestry, agricultural crops and fisheries. For instance, about 23% of the world's cocoa and 26% of the coffee areas are now certified by different sustainability standards (Lernoud et al., 2018). The popularity of VSS is such that certified products, which demonstrate compliance with sustainability standards, are growing at a pace that exceeds markets for conventional products.

The continuous rise of certification as a form of sustainability governance is grounded in various factors. These include the inability or unwillingness to pass and enforce robust legislation on sustainable production at the national level, high levels of poverty among small-scale producers and poor working conditions, pervasive challenges of environmental degradation and biodiversity loss, and increasing public pressure from non-governmental organisations (NGOs) and consumers to combat social injustices and protect the environment.

VSS range from efforts by single firms or NGOs, to industry associations and social movement organisations, business-NGO collaborations, multi-stakeholder initiatives, and, less commonly, public agencies. Although content and scope vary from one standard to another, they all aim to offer guidelines for producing, selling and purchasing products which are identified as "sustainable". At the same time, the proliferation of an increasing number of standards that address the same commodity or product in similar, yet slightly different, ways has led to competition between sustainability standards and

a fragmented market for certified products. Consumers are faced with a myriad of products carrying logos of certification schemes, with varying levels of credibility and transparency, which has fuelled an intense debate on the lessons learned on VSS so far, their impact and expected future developments.

This article offers a brief review of the current state of the debate, by presenting existing evidence on the impact of certification on smallholder farmers and discussing emerging efforts to move 'beyond certification'.

## The Theory of Change of standards and certification

Certification schemes in global supply chains are usually a combination of set requirements (standards) on three main themes: environmental sustainability, social sustainability, and safety and quality. These themes are the result of public and NGO pressure and consumer concerns, mostly in European and North American markets.

Whereas similarities between certification schemes exist, they can differ on a great number of characteristics, such as commodity focus, standard criteria, audit methodologies and consumer markets. An important distinction lies in the question of 'who sets the standard?'. This refers to whether standards are developed by single organisations, particularly by businesses to mitigate risks in their supply chains, or emerge through multi-stakeholder processes for sector-wide outcomes. The latter are often considered the most legitimate type of standards due to their inclusion of a broad range of stakeholders in standard development and governance (Bennett, 2017) (see Box 1).

### Box 1: Key elements for credible standard and certification systems

- 1 *Multi-stakeholder participation. Standard requirements should be developed and governed through a multi-stakeholder process, involving businesses, civil society, producers and local communities, governments and research, with balanced decision-making.*
- 2 *Transparency. Details of the standard, how it is applied and how decisions are made, including certification assessments, should be clear and publicly available.*
- 3 *Independent verification. Compliance with the standard should be verified by an accredited, independent third party auditor or certification body.*
- 4 *Continuous improvement. The standard and certification system should be regularly reviewed to incorporate the latest information and lessons learned and ensure it delivers its goals.*

Source: WWF & ISEAL, 2017

The specific target group of certification also varies: who gets certified? Many standards aim to deliver social and environmental outcomes at producer level, often seeking to improve livelihoods of smallholder farmers or working conditions for labourers on farms, plantations or in factories. Individual producers, producer groups, factories or exporting companies can get certified against VSS. The availability of group certification can be the deciding factor for smallholder farmers of whether they can have access to services and support to obtain certification at all.

VSS are a means to an end and often illustrate their desired impact in a Theory of Change. In agricultural commodity chains, certification relies heavily on the assumption that training of farmers in good agricultural practices (intervention) leads to higher yields and better quality products (outputs), which results in increased productivity and profitability (outcomes), ultimately improving incomes and livelihoods for certified farmers (impact).

A second route of envisaged impact of VSS regards focuses on the relation between certification and market transformation (Glasbergen, 2018). Information about the social and environmental conditions of production is provided to consumers, usually in the form of a label, to influence their purchasing behaviour. This creates a market for certified products which producers in the Global South can supply. In some cases, consumers are asked to pay a higher price for certified products, which will then trickle down to producers and thus incentivise producers to seek or maintain certification.

## Measurement and reporting challenges

In view of the rapid growth rates of certification schemes, high quality information on their impact is necessary to guide policymaking and improve practice. However, it remains difficult to report on the impact of certification. Complexity is high as certification stretches across a wide variety of actors, locations, commodities, methods, goals and monitoring and evaluation methodologies (Oya et al., 2018). Some sectors and standards, such as coffee and Fairtrade, have received much attention when it comes to impact measurement, whereas others have remained largely understudied. There are also methodological challenges, such as lack of counterfactuals, attribution difficulties, lack of baseline data and data over time, lack of consistency in outcome variables, and selection biases (Elliott, 2018). The challenge of impact evaluation is further compounded by the fact that many producers are certified under more than one scheme, but there is little information on the share of multiple certifications (Lernoud et al., 2018). Certification schemes also constantly evolve and change through periodic reviews, which makes it difficult to generalise results across time (van der Ven & Cashore, 2018). Finally, the

epistemology of many impact studies can be questioned, as there is a strong tendency to put the certifications at centre stage and neglect the sustainability challenges that triggered the rise of certification in the first place – such as smallholder poverty or biodiversity loss (Glasbergen, 2018).

### Impact on smallholder farmers in the spotlight

Various reports have attempted to investigate the impact of VSSs on smallholder farmers, but the findings are relatively ambiguous. Some studies find positive social-economic and environmental impacts, while others conclude that effects are insignificant, highly variable, or even negative. Overall, results seem to be more positive than negative, but they also indicate that VSSs are not a sufficient condition to improving social outcomes and incomes for smallholder farmers (DeFries et al., 2017).

A recent systematic review of agricultural VSSs in developing countries found evidence that certification leads to higher product prices (Oya et al., 2018). Yet, the study found inconclusive evidence for household incomes and no evidence for improved wages for farm workers. Among others, income from certified

production is limited by the extent to which markets absorb the total volume of certified products. This is a critical factor: only one-third to one-half of standard-compliant production is actually sold as compliant due to a consistent situation of oversupply of certified agricultural commodities (Elliott, 2018).

Box 2 offers an overview of the detected impact of certification in coffee, cocoa and palm oil, as the most advanced crops in terms of certification coverage.

Many of the VSS studies emphasise that impact is highly context dependent, shaped by how production is embedded within local landscapes, supply chains and social systems (Bray & Neilson, 2018). What seems like an obvious observation, actually points to the importance of studying the relative contribution of certification to promoting sustainable livelihoods of producers. This would involve supporting livelihood options beyond certified coffee, cocoa or palm oil production. Yet, this is where a mismatch between the Theories of Change of VSS and agricultural livelihoods has been identified (Glasbergen, 2018). If VSS encourage increased specialisation of agricultural production without considering producers' livelihood decisions, including engagement in off-farm activities, they restrict their potential for poverty alleviation (Bray & Neilson, 2018).



Photo: Neil Palmer (CIAT)

## Box 2: Certification in coffee, cocoa and palm oil

### Coffee

The coffee sector has the highest presence of sustainability standards among agricultural commodities and, in 2016/2017, about 55% of global coffee production (in terms of volume) conformed to a certification standard (Hivos, 2018). The largest certification schemes in coffee are 4C, organic, Fairtrade, Rainforest Alliance and Utz (which merged in 2017), Starbucks' C.A.F.E Practices and Nespresso's AAA programme.

Available evidence suggests that coffee certification can have modest, positive effects and researchers find relatively few negative effects (Elliott, 2018). In several cases, the adoption of sustainability standards is found to increase selling prices of coffee, which is also the primary incentive for farmers to enrol in certification (Oya et al., 2018; Elliott, 2018). However, higher prices do not necessarily translate into higher incomes, considering the cost of certification and compliance, and many studies only find marginal improvements (Oya et al., 2018; Giuliani et al., 2017). Environmental impacts seem to be stronger, with studies reporting some positive environmental effects of organic and Rainforest Alliance certification and improved use of agrochemicals and water resources (Elliott, 2018; DeFries et al., 2017; Ibanez & Blackman, 2016). Studies on social conduct are few and find little or no effects, e.g. on worker protection and salaries (Oya et al., 2018; Elliott, 2018; Giuliani et al., 2017).

### Cocoa

The cocoa sector features four main VSS, namely Utz – as the biggest scheme in cocoa – Fairtrade, Rainforest Alliance and organic. In 2016, more than 3.1 million tonnes of cocoa were certified against one of these standards (Ingram et al., 2017).



Studies assessing the effects of cocoa certification on small-scale farmers are fewer, compared to coffee, and positive effects are reported, especially on income, productivity and market access, and natural capital, but also some negative effects, such as increased costs of labour (Ingram et al., 2018; Fenger et al., 2017). The amount of (external) support for farmers seems to play a pivotal role in determining the significance and duration of positive effects. For instance, when looking at Utz certified cocoa farmers in Ghana and Côte d'Ivoire, a recent study finds significant increases in cocoa

productivity and income for certified farmers receiving a full package of services (especially input provision and training). However, service delivery has often decreased over time, as a result of which productivity and income increases are levelling off, and non-certified farmers receiving similar services are catching up (Ingram et al., 2018). Thus, positive impacts of certification are at risk of not being sustained in the longer run if farmers are not continuously supported in their efforts to meet the certification standard (Fenger et al., 2017).

### Palm oil

Three standards – the Roundtable on Sustainable Palm Oil (RSPO), organic and Rainforest Alliance – certify oil palm production, mostly concentrated in Indonesia and Malaysia as the biggest producing countries worldwide. In 2018, about 20% of global production of palm oil was certified as sustainable (Raghu, 2019).

Most of this falls under the RSPO standard, which is also the most frequently one debated in literature. While many studies focus on assessing the RSPO's governance structure as a multi-stakeholder initiative and on its enforcement capacity, few investigations have been undertaken to evaluate the RSPO's effectiveness in achieving its sustainability aims on the ground.

Two high-profile studies were published in 2018, with partially contradictory findings. A first study in Indonesia (Morgans et al., 2018) found no significant differences between certified and non-certified plantations for any of the environmental, social and economic sustainability metrics investigated: no protection for orang-utans (their populations declined in both certified and non-certified concessions between 2009 and 2014), no reduction in fire outbreaks and no evidence of improving wealth levels for surrounding communities. The only area where RSPO certification was found to make a positive impact was in higher yields and prices for certified companies.

The second study, however, discovered that RSPO certification reduced deforestation in Indonesian oil palm plantations by 33 percent from the business-as-usual scenario between 2001 and 2015 (Carlson et al., 2018). At the same time, this study also conceded that reduced deforestation mostly happened in older plantations, where much of the forest had already been cleared prior to certification, leaving little to deforest. As a result, by 2015, certified areas held less than 1% of forests remaining within Indonesian oil palm plantations. Moreover, certification had no causal impact on forest loss in peatlands or active fire detection rates.

With regard to the impact of RSPO certification on smallholder farmers, slightly higher prices than for uncertified farmers have been observed, mostly attributed to better organisation of farmer groups and the training they get in Good Agricultural Practices (Hidayat et al., 2016). Studies also emphasise the high costs of certification for smallholder farmers, which offset the price premiums received if certification costs are not covered by NGOs or the miller companies the smallholders collaborate with (Hidayat et al., 2016).



Photo: COOPAC Holding Ltd

Seeking certification is also not a viable strategy for all segments of smallholder producers. Studies suggest that successful engagement with certification is more likely for farmers with larger land sizes and more farming experience, who can afford the costs of certification, including costs of increased labour and audits (Oya et al., 2018). Smallholders who are very poor (in terms of finances, land, labour, skills and other resources), on the other hand, have trouble getting certified without external assistance and support. Even Fairtrade, with its focus on smallholders, does not appear to attract the poorest or most marginalised producers (Elliott, 2018).

Studies also reveal another point of uncertainty. As the poorest segment of the farming community are, in any case, not smallholders, but (migrant) labourers who do not have the resources to own land, the extent to which they benefit from VSS remains unclear. To implement the standards' requirements, farmers are likely to face higher labour costs (Ingram et al., 2018). Poorer producers, in particular, may cope with this by resorting to cheaper labour sources, such as household members (which can even lead to more reliance on child labour) (Oya et al., 2018).

Furthermore, concerns have been voiced that VSS tend to encourage farmers to specialise in cash crop production, potentially at the expense of food production and with negative gender effects (Vellema et al., 2015). Cash crops are often the domain of men, while women are responsible for crops that contribute to household food security. Certification can

therefore lead to the replacement of food crop production, which not only undermines food security, but also results in a lower share of the income controlled by women. A comparison of certified (Fairtrade, organic and Utz) to non-certified coffee farmers in Uganda, however, revealed that certified households tend to be more food secure and have a higher energy and micronutrient intake (Chiputwa & Qaim, 2018). The study suggested that this was because certification had given women greater control of coffee production and income from coffee.

Overall, however, the effects of certification on women's empowerment are far from clear-cut. Certification may increase women's workloads while social factors may keep women farmers from entering certified producer organisations, limit their access to financial support, and restrict their decision-making power (Oya et al., 2018; Elliott, 2018). It also seems that even in cases where there are positive gender effects, male farmers tend to reap higher benefits from certification than women (Meemken & Qaim, 2018). There are also important gaps on gender equality in VSS, specifically the issue of women's unequal ownership of land and access to other productive resources, which most VSS leave largely unaddressed (Sexsmith, 2019).

The aspects of food security and women's empowerment illustrate how the debate on the impact of VSS is both deepening and broadening, as an increasing number of studies are investigating both the intended and unintended effects of VSS on smallholder farmers.



Photo: Adobe Stock

## Certification and beyond?

Debates on standards and certification show no signs of reducing in intensity but, in addition to a pronounced focus on impact on the ground, the phrase ‘beyond certification’ finds increasing resonance in the conversation. This does not necessarily echo in calls to abandon certification, but refers to a growing consensus that certification alone is not enough to address the various sustainability challenges at production level. Below we discuss the main trends of ‘certification and beyond’.

### Broadening the debate beyond individual standards’ requirements

The role of certification is already changing and, partly, this has been driven by the certification schemes themselves. VSS increasingly take on roles as facilitators of discussions between companies, NGOs and governments, and as collaborators to become partners in rural development efforts (Fransen, 2018). Key in this is their ability to be recognised as innovators on sustainability and contribute to cross-scheme learning and adoption of best practices.

One of the most prominent discussions revolves around the issue of living income (or living wages) and how to ensure that farmers and workers achieve a decent standard of living. While many VSS have broached this topic in their standards, they have now embarked on driving innovation on living income through targeted research and joint development projects.

For instance, in 2018, Fairtrade published a Living Income Reference Price (or benchmark) for cocoa from Ghana and

Côte d’Ivoire based on data from the monitoring of the impact of their standard, which showed that the Fairtrade minimum price was insufficient for a living income (Fairtrade, 2017). The new living income benchmark has been formulated in consultation with other supply chain actors, highlighting the role of Fairtrade as a facilitator of sustainability debates. The living income benchmark can be used by other stakeholders in the cocoa supply chain to calculate and properly address the issue of living income.

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A similar example is provided by the Rainforest Alliance, which has presented a strategy to effectively address deforestation. This responds to the growing debate on zero-deforestation (or deforestation free) value chains. Many VSS are a key strategy for companies to eliminate deforestation from their supply chains, yet not all VSS are equally relevant and effective to zero deforestation. Calls for improving traceability systems of existing standards and strategies for ascertaining zero deforestation at landscape level have therefore gained momentum and several VSS have utilised this to reposition themselves vis-à-vis other value chain actors, including companies and governments, and to initiate new sustainability programmes.

### Addressing sustainability through a landscape approach

Certification demands fundamentally reflect the concerns and preferences of consumers, but not the values and interests of

those undergoing certification: the producers themselves. This also shows in certification impact assessments, which investigate whether standards meet their objectives, but not whether they meet producers' needs (Glasbergen, 2018). Continued high levels of poverty and environmental degradation, despite certification, testify to the limits of fragmented farm-level and commodity-focused approaches.

Landscape approaches, originating in international conservation programming, have therefore enjoyed growing popularity to achieve landscape-wide change and recognise the need to engage with a wider set of stakeholders at local level, including poorer smallholders, governments and businesses (Nelson & Philips, 2018). The aim of these approaches is to realise benefits for farmers, the community and the environment and certification is no longer seen as the beginning of a process of change, but a possible culmination of that process (Glasbergen, 2018). Certification thus gets embedded in a comprehensive rural development approach. So far, however, rhetoric on landscape approaches has not yet translated into demonstrable impact given the operational challenges and the unclear business case of these approaches (Nelson & Philips, 2018).

### **Replacement of sector-wide standards with company**

Particularly in the coffee and cocoa sectors, companies increasingly question the effectiveness of VSS and have started developing their own sustainability programmes, whilst lowering their commitments to VSS. Rather than convergence, a further multiplicity of competing efforts can thus be observed. This is grounded in strong competition between industry actors and fierce struggles to control the distribution of value along supply chains by shaping the definition and implementation of sustainability (Grabs, 2018). At the same time, company-own supply chain programmes represent an opportunity for businesses to respond to evolving stakeholder pressures and show commitment to impact in the face of increasing concerns over VSS' ability to drive substantial change on the ground (Thorlakson, 2018).

For instance, global food giant Mondelez replaced Fairtrade for its cocoa products with its own company verification programme called Cocoa Life. The Mondelez programme is illustrative for a new role of VSS: While Fairtrade is still an implementing partner of Cocoa Life, it is no longer the standard setter or certifier. Fairtrade has abandoned its regulatory role (standard setting) and moved into a supporting and consulting role.

The implications of the move towards company-own sustainability programmes still remain to be seen. A possible consequence is that, in the future, consumers will learn of a products' sustainability through brand association rather than a Fairtrade or Rainforest Alliance logo (Fransen, 2018). There are also concerns about transparency and reliability of reporting, or that farmers

– who are already struggling with severe power asymmetries in the relationship with buyers – become even more dependent on large branded companies. Such dependence increases the vulnerability of smallholder farmers, and has the potential to undermine, or even reverse any development gains. Indeed, the rise of company sustainability programmes may diminish the inclusiveness of standard setting and undermine the decision-making power of other actors in sustainability governance, mainly that of producers (Fransen, 2018; Thorlakson, 2018).

### **Emergence of Southern standards**

Much of the trend of VSS has been driven by actors from 'Northern' consumer markets, which has raised questions of inclusiveness and resulted in legitimacy and effectiveness challenges of VSS. Recently, however, an emergent counter-trend can be observed, which manifests in the development of standards by actors from Southern producer countries in issue areas where Northern-driven VSS have tended to dominate (Schouten & Bitzer, 2015). This is also connected to the growing importance of South-South trade, which creates new market opportunities for producers of agricultural commodities that are not subject to the sustainability demands from European or American buyers (Schleifer & Sun, 2018).

Examples of Southern standards include the public standards for sustainable palm created by the Indonesian and Malaysian governments rivalling the RSPO; China's efforts to promote its own domestically-driven forest certification scheme rather than endorse the global Forest Stewardship Council; the Sustainability Initiative of South Africa, an ethical programme of the South African fruit industry; and the Brazilian Soja Plus initiative to rival the Roundtable on Responsible Soy. These cases testify to the attempt of producer countries to reposition themselves in global value chains, and could represent a new trend in sustainability governance affecting global value chains (Schouten & Bitzer, 2015).

## **Conclusion**

Standards and certification are continuously evolving amidst persistent struggles for legitimacy and demonstrable impact on the ground. Multiple developments progressing in parallel can be discerned: growing research dedicated to investigating the effects of VSS; enhanced attention on the different areas where certification can have positive or negative, intended or unintended 'side effects'; and an increasingly widespread debate on 'certification and beyond'. What these developments perhaps best express is a recognition of the complexity of sustainability challenges at production level, highlighting the limits of current approaches and driving a continued search for new, improved responses.

## References

- Bennett, E.A. (2017). *Who Governs Socially-Oriented Voluntary Sustainability Standards? Not the Producers of Certified Products*. World Development, 91, 53–69.
- Bray, J. & Neilson, J. (2018). *Examining the interface of sustainability programmes and livelihoods in the Semendo highlands of Indonesia*. Asia Pacific Viewpoint, 59(3), 368–383.
- Carlson, K.M., Heilmayr, R., Gibbs, H.K., Noojipady, P., Burns, D.N., Morton, D.C., Walker, N.F., Paoli, G.D., & Kremen, C. (2018). *Effect of oil palm sustainability certification on deforestation and fire in Indonesia*. PNAS, 115(1), 121–126.
- Chiputwa, B., & Qaim, M. (2016). *Sustainability Standards, Gender, and Nutrition among Smallholder Farmers in Uganda*. The Journal of Development Studies, 52(9), 1241–1257.
- DeFries, R.S., Fanzo, J., Mondal, J., Remans, R., & Wood, S.A. (2017). *Is voluntary certification of tropical agricultural commodities achieving sustainability goals for small-scale producers? A review of the evidence*. Environmental Research Letters, 12, 033001.
- Elliott, K.A. (2018). *What Are We Getting from Voluntary Sustainability Standards for Coffee?* CGD Policy Paper. Washington, DC: Center for Global Development.
- Fairtrade (2017) *Fairtrade Living Income Strategy 2017*. [https://cifal-flanders.org/wp-content/uploads/2018/07/Fairtrade-Belgium\\_Fairtrade-Living-Income-Strategy\\_NED\\_2017.pdf](https://cifal-flanders.org/wp-content/uploads/2018/07/Fairtrade-Belgium_Fairtrade-Living-Income-Strategy_NED_2017.pdf)
- Fenger, N.A., Bosselmann, A.S., Asare, R., & de Neergaard, A. (2017). *The impact of certification on the natural and financial capitals of Ghanaian cocoa farmers*. Agroecology and Sustainable Food Systems, 41(2), 143–166.
- Fransen, L. (2018). *Beyond Regulatory Governance? On the Evolutionary Trajectory of Transnational Private Sustainability Governance*. Ecological Economics, 146, 772–777.
- Giuliani, E., Ciravegna, L., Vezzulli, A., & Kilian, B. (2017). *Decoupling Standards from Practice: The Impact of In-House Certifications on Coffee Farms' Environmental and Social Conduct*. World Development, 96, 294–314;
- Glasbergen, P. (2018). *Smallholders do not Eat Certificates*. Ecological Economics, 147, 243–252.
- Grabs, J. (2018). *Assessing the institutionalization of private sustainability governance in a changing coffee sector*. Regulation & Governance, early view, doi: 10.1111/rego.12212.
- Hidayat, N.K., Offermans, A., & Glasbergen, P. (2016). *On the profitability of sustainability certification: an analysis among Indonesian palm oil smallholders*. Journal of Economics and Sustainable Development, 7(18), 45–62;
- Hivos (2018) *The Coffee Barometer 2018*. <https://www.hivos.org/assets/2018/06/Coffee-Barometer-2018.pdf>
- Ibanez, M., & Blackman, A. (2016). *Is Eco-Certification a Win–Win for Developing Country Agriculture? Organic Coffee Certification in Colombia*. World Development, 82, 14–27.
- Ingram, V., Van Rijn, F., Waarts, Y., & Gilhuis, H. (2018). *The Impacts of Cocoa Sustainability Initiatives in West Africa*. Sustainability, 10(11), 4249.
- Lernoud, J., Potts, J., Sampson, G., Schlatter, B., Huppe, G., Voora, V., Willer, H., Wozniak, J., & Dang, D. (2018). *The State of Sustainable Markets – Statistics and Emerging Trends 2018*. ITC, Geneva.
- Meemken, E.-M., & Qaim, M. (2018). *Can private food standards promote gender equality in the small farm sector?* Journal of Rural Studies, 58, 39–51.
- Morgans, C.L., Meijaard, E., Santika, T., Law, E., Budiharta, S., Ancrenaz, M., & Wilson, K.A. (2018). *Evaluating the effectiveness of palm oil certification in delivering multiple sustainability objectives*. Environmental Research Letters, 13, 064032.
- Nelson, V. & Philips, D. (2018). *Sector, Landscape or Rural Transformations? Exploring the Limits and Potential of Agricultural Sustainability Initiatives through a Cocoa Case Study*. Business Strategy and the Environment, 27, 252–262.
- Oya, C., Schaefer, F., & Skalidou, D. (2018). *The effectiveness of agricultural certification in developing countries: A systematic review*. World Development, 112, 282–312.
- Raghu, A. (2019). *The World Has Loads of Sustainable Palm Oil... But No One Wants It*. <https://www.bloomberg.com/news/articles/2019-01-13/world-has-loads-of-sustainable-palm-oil-just-no-one-wants-it>
- Schleifer, P., & Sun, X. (2018). *Emerging markets and private governance: the political economy of sustainable palm oil in China and India*. Review of International Political Economy, 25(2), 190–214.
- Schouten, G., & Bitzer, V. (2015). *The emergence of Southern standards in agricultural value chains: A new trend in sustainability governance?* Ecological Economics, 120, 175–184.
- Sexsmith, K. (2019). *Leveraging Voluntary Sustainability Standards for Gender Equality and Women's Empowerment in Agriculture: A guide for development organizations based on the Sustainable Development Goals*. International Institute for Sustainable Development, Canada
- Thorlakson, T. (2018). *A move beyond sustainability certification: The evolution of the chocolate industry's sustainable sourcing practices*. Business Strategy and the Environment, 27, 1653–1665.
- van der Ven, H., & Cashore, B. (2018). *Forest certification: the challenge of measuring impacts*. Current Opinion in Environmental Sustainability, 32, 104–111.
- Vellema, W., Casanova, A.B., Gonzalez, C., & D'Haese, M. (2015). *The effect of specialty coffee certification on household livelihood strategies and specialisation*. Food Policy, 57, 13–25.
- WWF and ISEAL (2017). *SDGs mean business: how credible standards can help companies deliver the 2030 Agenda*. [https://www.standardsimpacts.org/sites/default/files/WWF\\_ISEAL\\_SDG\\_2017.pdf](https://www.standardsimpacts.org/sites/default/files/WWF_ISEAL_SDG_2017.pdf)

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