

Improving smallholder inclusiveness in palm oil production — a global review

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Oil palm fresh fruits. Photo: Tropenbos Indonesia

Introduction



Palm oil is produced in the humid and sub-humid tropics. It is a commodity that causes controversy due to its impacts on smallholder livelihoods, local communities, biodiversity, land productivity and climate change. Given these issues, the focus, size and depth of the debates surrounding palm oil production are growing. Addressing the inclusiveness of smallholders who make up a substantial part of the value chain, this *ETFRN News* presents the experiences, perceptions and perspectives of individuals, companies, institutions and NGOs, on what has been done and is being done on the ground to increase the involvement of, and benefits to, smallholder oil palm growers. How do these actions and their impacts differ between different smallholder types and organizations? How do they differ between countries, regions and corporate contexts? What are the effects of various enabling policy environments? And what do the authors in this edition mean by ‘inclusiveness’?

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This edition brings together 19 articles and five interviews from around the world that reflect on these questions and look at means of improving smallholder inclusiveness in palm oil production. These rich experiences are discussed and compared in this review; see the list of the nine key lessons (Box 1).

Box 1. Key lessons learned

- 1. “Inclusiveness” is interpreted in different ways and a common definition is needed.**
This range of interpretations leads to different approaches and measures of success, and to difficulties in how to compare them.
- 2. Empowering smallholders is an essential prerequisite for increased inclusiveness.**
This is achieved through cooperatives, training, and external support from extension services, NGOs and companies, as well as support from governments that promotes enabling conditions.
- 3. Increased uptake of certification schemes is correlated with improved smallholder inclusiveness.**
Challenges remain, however, in upscaling certification (RSPO and organic), especially for independent producers.
- 4. Smallholders benefit when they can take on more roles in the supply chain (e.g., co-owning mills).**
In doing so they gain decision-making power and increase their share in the benefits generated in the value chain.
- 5. Diversifying livelihood options through intercropping or other means is important for smallholders.**
The benefits of intercropping are supported by research, but more evidence is needed to identify appropriate crops, systems and markets.
- 6. Companies must consider smallholder producers more as partners and co-investors.**
This requires truly transparent, reciprocal and participatory processes and regular consultation, not just a nominal “seat at the table” or one-off meetings.
- 7. Build trusting relationships with smallholders is crucial, and patience is paramount.**
For effective partnerships, smallholders must be involved from the outset and through every step of the process. Engagement must be long term.
- 8. Inclusive palm oil production requires innovative technological and business models.**
However, current models rarely address both, and further integration is required.
- 9. Policies at all levels have key roles in creating enabling conditions to stimulate inclusive businesses.**
Local, national and international policymakers all have important contributions to make.

Oil palm expansion

Palm oil production has grown rapidly in Southeast Asia in recent decades, and more recently in West Africa and Latin America, with further growth expected (Rival and Levang 2014). In fact, in only a single year from 2017 to 2018, global production increased by about 7%, from 65 to about 70 million tonnes, with more than 20 million hectares of new oil palm plantations developed across the world. Indonesia and Malaysia are the largest producers (ca. 40 and 20 million tonnes, respectively), followed by Thailand and Colombia (with 3 and 2 million tonnes) (USDA-FAS 2018). On a regional level, Southeast Asia represents 89% of total global production, while Latin America produces 6% and Africa 5% (Pacheco et al. 2017). Palm oil is imported by all regions, with the largest consumers being Asia, followed by Europe (COWI A/S 2018).

The underlying reason for the rapid growth in oil palm cultivation is the increasing demand for vegetable oil for food, cosmetics, feed and fuel, linked to growing populations and a rising living standard. Oil palm also has superior yields compared to other oil crops, leading to greater financial benefits for all those involved (Rival and Levang 2014; Pacheco et al. 2017). Oil palm can thus provide a substantially greater income to smallholders and labourers compared to what they used to earn from farming; for this reason, it is lifting many millions of people out of poverty (Sheil et al. 2009), and contributing to local employment and infrastructure development.

But oil palm cultivation is also correlated with the destruction of rainforests and peatlands and a consequent loss of carbon stocks and animal and plant species, particularly in Indonesia and Malaysia. Palm oil production has also led to the pollution of water, soil and air, due to agrochemical run-off and discharges of mill effluent. Plantations are also associated with displacement of communities, reduction in food production, and loss of community access to land and resources, leading to land conflicts. In addition, benefits may be available only to those smallholders with investment capital; in many cases, immigrants have benefited more than indigenous people. Furthermore, certain companies are accused of unfair treatment of workers.

Given these concerns, various standards and policies have been developed, such as the global Roundtable on Sustainable Palm oil (RSPO), the national Indonesian Sustainable Palm Oil (ISPO) standard, and the Malaysian Sustainable Palm Oil (MSPO) scheme. Relevant policies include European Union Renewable Energy Directives 1 & 2 (EU-RED), the No Deforestation, No Peat, No Exploitation (NDPE) policies, the recently extended moratorium in Indonesia (Presidential Instructions 10/2011; 6/2013; 8/2015; 6/2017; 8/2018), and various zero-deforestation commitments (Pasciecznik and Savenije 2017).

Although certification has an important role when it comes to working towards a more sustainable and inclusive palm oil supply chain, there is also increased evidence that it is not a stand-alone instrument, emphasizing the need to look beyond it and explore landscape approaches, diversification of livelihoods, and binding regulations to achieve the scales and impacts needed. Additionally, many efforts that work toward a more sustainable palm oil supply chain focus on environmental aspects, social aspects related to land rights of local communities such as free, prior and informed consent, and on best management practices to increase smallholder productivity and sustainability. Do such efforts also make palm oil production more inclusive for smallholders?



Oil palm plantation in Colombia. Photo: The Making of Colombia

Smallholders in palm oil production

A large proportion of all new oil palm plantations is established by large enterprises, though 40% of the global area is managed by smallholders, who produce 30% of the world's palm oil (Saadun et al. 2018). It is estimated that some three million smallholders are involved in palm oil production worldwide (Rival and Levang 2014), and their numbers are increasing. However, the way that smallholders contribute differs significantly between regions.

In Southeast Asia, oil palm was originally a government- or privately-owned monoculture plantation crop that used hired labour. Smallholders were included only much later, when they were part of resettlement schemes strongly tied to mills such as in nucleus estate plasma schemes in Indonesia, and through the Federal Land Development Authority in Malaysia. Several funding mechanisms have since encouraged these companies to also source from smallholders, leading to different forms of contract farming. And when the Indonesian government allowed independent mills to be established, smallholders started to plant oil palm themselves, and plasma smallholders became free to deliver to any mill after they paid back their loans.

In Africa, where oil palm is a native tree, it has always been a smallholder crop, self-planted, self-processed and rarely grown as a monoculture. More recently, international companies have introduced monoculture plantations, in part driven by the promotion of oil palm plantations for agrofuels (Carrere 2013). In Latin America, only a few companies and smallholder farmers were involved in biofuels, which mainly supplied the domestic market. Although expansion there has been modest compared to Southeast Asia, the boom in biofuels has led to a doubling of production in Latin America since 2001 (Furumo and Aide 2017). Colombia now has the largest plantation area on the continent,

driven by large-scale actors; 70% of exports stay within the region, with Mexico importing about half (Furumo and Aide 2017).

There are various definitions for “smallholder” and “small-scale grower” as related to palm oil production and to other crops and commodities, but there is some consistency. For example, a smallholder cultivates up to 2 hectares, while small-scale growers manage up to 40 to 50 hectares. However, such area-related definitions are dependent on continents or regions; a farmer with 40 hectares in Colombia would be considered as a small grower, but in Sierra Leone would be considered a large-scale producer. Furthermore, independent of farm size, smallholders can differ greatly in many other aspects, such as whether they are organized or not, contracted by companies or not, their available assets, geography, capacities, family or hired labour, etc. There is real need to consider this diversity when discussing the impacts of policies and market instruments on smallholder producers.

Defining inclusiveness

Specifically related to oil palm, “many actors, scientists and development workers define smallholder inclusion as engagement of smallholders in palm oil supply chains, thereby gaining access to national and international markets and to technologies to increase yields and income per hectare and per unit of labour” [5.2]. From the corporate sector, Löhner [Interview iv] states for instance that “smallholder inclusiveness refers to providing smallholders with market access, and hence not excluding them from our supply chain.” Different definitions will of course have an impact on how inclusiveness is put into practice. For example, examples from the corporate sector presented farmer training as their way of being more inclusive [e.g., Interview iv], where others are more ambitious and comprehensive, observing that “supply chains are intended to involve participation from all players for mutual benefits to increase efficiency, comparative advantage and profit” [1.5].

The success of an inclusive approach can be measured through four components: ownership, reward, voice and risk [3.1]. This is supported by a plea to listen to the voice of farmers asking to fulfil their livelihood needs as part of inclusion [3.1; 5.2]. Inclusiveness can also embrace situations where smallholders obtain direct or indirect access to the profits (i.e., ownership and rewards) from processing [2.2]. Another article defines inclusiveness as “the act of bringing smallholder producers together with other stakeholders along the palm oil supply chain to share an equal participation platform and voice in envisioning equal opportunity through shared vision” [Interview i]. Although definitions were sometimes framed by an individual or company, it was emphasized that ultimately it is how things are implemented on the ground that will eventually determine their contribution to sustainable development [e.g., 4.2].

Thus, although to some people, smallholder inclusiveness in supply chains means increasing their market access and higher incomes, for others, inclusiveness may have additional meanings such as ownership, voice and fair share of risks and benefits. There is no universally accepted definition (see Box 2).

Most definitions specified or focused on social actions and benefits. But several complementary and parallel definitions also include environmental actions and benefits. This publication does not, and cannot, propose a composite definition based on the varied views, but leaves readers to make their own value judgement based on the content. However, the lack of a clear definition does create a need to agree on a definition at the global level.

Box 2. Some definitions of inclusiveness

Inclusiveness

“The quality of including many different types of people and treating them all fairly and equally.”
(<https://dictionary.cambridge.org/dictionary/english/inclusiveness>)

“The practice or policy of including people who might otherwise be excluded or marginalized, such as those who have physical or mental disabilities and members of minority groups.”
(<https://en.oxforddictionaries.com/definition/inclusiveness>)

“Social inclusion is critical to ensure that the needs of disadvantaged social groups such as indigenous peoples, persons with disabilities, older persons, youth and women, are considered so that no one is left behind.”
(www.un.org/development/desa/capacity-development/what-we-do/areas-of-work/social-inclusion/)

Smallholder inclusion is defined as a sourcing strategy in which smallholders produce commodities for high value-adding supply chains with a business perspective (Sjauw-Koen-Fa, Blok and Omta 2016)

Inclusive business

Inclusive businesses are companies that develop innovative ways to do commercially viable business with people living at the base of the pyramid and to expand access to basic products and services (World Bank 2019).

Inclusive business are those that generate high development impact by (i) improving access to goods and services for the base-of-the-pyramid population (i.e., low-income people); and/or (ii) providing income and/or employment opportunities to low-income people as producers, suppliers, distributors, employers, and/or employees. An inclusive business must be commercially viable and must meet non-sovereign operation standards of viability (ADB 2019).

In the inclusive business model, low-income populations can provide markets and a workforce, and small-scale producers can strengthen the supply chain for businesses (UNDP 2010), so engaging the poor as producers, distributors, suppliers, or consumers, triggering the realization of socio-economic value and livelihood opportunities for communities in commercially viable ways (Inclusive Business Accelerator 2016).

Inclusive business integrates smallholders into markets with mutual benefits for the poor and the business community, while enabling the poor to move out of poverty. Such inclusion is achievable in partnership with producers, the public sector, buyers and NGOs (FAO 2015).

A business is inclusive if it is innovative, effective, credible, adaptable, makes healthy and affordable products and services for the poor, creates employment and has long-term financial and ecological sustainability. This definition of inclusive business calls for inclusive innovation and the creation of opportunities by removing economic, social, ecological, and geographical barriers; this enhances the social and economic well-being of the disenfranchised base-of-the-pyramid (BoP) and maintains the local ecosystems by promoting sustainable value creation (Likoko and Kini 2017).

Certification and smallholder farmers

According to the articles in Chapter 1, there is a supply-and-demand imbalance regarding RSPO certified palm oil between producer and consumer countries. There has been much support for producers and smallholders to adopt more sustainable practices as enshrined in RSPO standards and criteria, and production of certified palm oil worldwide has been increasing steadily over the years. However, demand has not increased at the same pace, and currently, only 50% of all certified palm oil can be sold as such [1.5]. But that aside, many papers in this issue highlight the fact that the RSPO organization plays an important role in coordinating regional and international efforts toward a shared global vision of market transformation to more sustainably produced palm oil [e.g., 1.1; 1.2]. Smallholders have always been important for RSPO and remain at the forefront of its mission to establish a wholly inclusive sustainable palm oil supply chain. This is supported by the recent development of its smallholder strategy that emphasizes livelihoods rather than certification per se [1.1]. What becomes clear from this issue is that certification such as that of RSPO and the International Federation of Organic Agriculture Movements (IFOAM) can make important contributions by engaging smallholders to adopt more sustainable practices, and by promoting more equitable benefit sharing and a stronger position in decision making [1.2].

Nonetheless, it was clear from many articles that smallholders face numerous challenges, which limits their ability to comply with standards and to qualify for certification. This creates an imbalance between achieving the goals of certification and increasing smallholder inclusiveness. For example, many smallholders find it difficult to adequately document the level to which they adopt sustainable practices; this excludes them from certification [1.5]. Adopting smallholder-specific certification standards that are less demanding [1.1], or using technology to improve monitoring and support to smallholders [2.1], are examples of how to overcome this barrier. Another challenge is the fact that the systems through which fresh fruit bunches are sold can be complicated, often involving intermediate traders (middlemen), and this can affect compliance with certification [3.1]. The example of a private company (NPBOL) in Papua New Guinea, where there are no intermediaries, offers insights as to how this can be overcome [4.1].

RSPO notes the fine balance between increasing independent smallholder compliance through a stepwise approach and ensuring that sustainability remains at a desired level [1.1]. For example, compliance with RSPO spraying regulations may create new demands for the organization of labour that may cause a failure to lead to lower environmental impact [2.5]. Also, if this transition requires partnering with companies with a questionable track record, such as those involved in large-scale deforestation, then the sustainability credentials of this approach are easily blurred [2.2]. In Colombia, another issue was that organically certified producers had lower yields and employed fewer workers per hectare, but received a price premium that was the primary motivation for becoming certified. Some of this premium was passed on, since producers also paid higher prices to their workers per tonne of fruit harvested [1.2]. Whereas lower yields can be offset by price premiums, such offsetting is not always guaranteed, however, and the possibility of diminishing premiums must be addressed in order to enhance smallholder contribution in the global value chain [1.2]. In fact, according to articles in Chapter 1, RSPO is not generally associated with lower yields, since applying the good agricultural practices required for certification often leads to higher yields per hectare and to more efficient use of inputs; this tends to increase profits, independent of any premium paid.

The RSPO and IFOAM certification systems were both positively linked to increased smallholder inclusiveness [1.2; 1.5], but the long-term outcomes of improved practices on enhanced ecosystem conservation and livelihoods remain uncertain [1.2]. For certification to be more successful and inclusive, several recommendations can be made. First, it is essential to build trust through transparent mechanisms and dynamic cooperation between various actors, and to replicate successful approaches across different regions. The experience of Solidaridad in Honduras, for example, shows that it was possible to build an inclusive and sustainable palm oil programme [1.4]. But for such an inclusive and sustainable palm oil programme to occur, a second recommendation is to take the large diversity of oil palm smallholders into account, especially in terms of land ownership, skills, knowledge and interests, along with ensuring the commitment of other players in the long supply chain [1.5]. Third, the importance of patience should not be underestimated.

Working towards more inclusive and sustainable practices requires behavioural changes in the mindset and habits of smallholder farmers. Initially it was thought that this would be easy, but there are clear challenges, such as the need for record keeping and documentation [1.2; 1.4]. However, once a few farmers have adopted better practices, neighbours do tend to get curious. To support increasing the scale and impact of certification, it is important that enabling government policies are in place that focus on improving links between smallholders and industry [1.2]. Furthermore, it is necessary to rethink certification models as they evolve over time. This requires more emphasis on: (1) looking at landscape-level initiatives and standards, rather than single commodities [1.4]; (2) building genuine stakeholder partnerships, and (3) recognizing the need to help smallholders address their livelihood challenges [1.3]. In order to achieve this, better information networks and more creative efforts are needed [1.2].

Alternative technical and business models

Examples of alternative models are presented in the articles in Chapter 2. Some models focus on technological innovation, including best-management practices, while others focus on innovative business practices, including various institutional structures and financing schemes. Good agricultural practices and best management practices are the most common umbrella terms for packages of technological innovation to improve productivity and smallholder inclusiveness. For implementation, it is important to organize adequate and continuous smallholder support [2.5] to overcome the risks of planting lower-yielding seedlings and of poor agricultural practices [3.1].

It was emphasized that smallholders tend to have only two options: either fully converting to oil palm monoculture, or being excluded altogether [5.2]. However, a technological approach mentioned in several articles as being important for smallholder inclusiveness is intercropping, which moves away from the traditional monoculture production model. Integrating oil palm into diversified land use is considered a key way to improve the livelihoods of family farmers, rather than seeing farmers solely as palm oil producers [e.g., 2.6; 5.2]. Intercropping provides smallholders with an increased diversity of options to choose from. Nonetheless, perfect intercropping solutions do not yet exist, and trade-offs are likely [5.2]. Also, it is often difficult for smallholders to adopt intercropping. Many of them are unsatisfied with the lack of government incentives that would allow for investment in other crops; this leads to oil palm cultivation being one of few options for livelihood improvement [2.6].

Several interesting innovative business models are presented, such as village business units in Indonesia [2.4]. These are established through a village general assembly and managed by professionals, independent of village officials, yet most of the capital is village owned. Promoting smallholder participation in the industrial processing of crude palm oil through smallholder co-ownership of mills — not common in the palm oil value chain — is another simple and straightforward way to increase inclusiveness and smallholder profits [1.4; 2.2]. In Solomon Islands, some land-owners have become shareholders of the processing company [4.1]. In Papua New Guinea, intermediaries have been eliminated, and the private company NBPOL applies a price-determining formula with a guarantee to buy all produce from smallholders, irrespective of quality [4.1]. The company may need to buy all produce to guarantee a sufficient supply for their mill or to keep all smallholders interested; processing poor-quality fruit tends to lead to higher costs per tonne of oil produced and potentially lead to more waste burdening the environment.

Several critical factors for the success of innovative business schemes are identified. The first is that smallholders must have access to financing; this means that they require collateral as a guarantee for repayments. Second, delayed initial repayment must be allowed, since the first palm oil yields are not expected until four years after planting. So, external financial support to smallholders is crucial in the first years of the production cycle, either from donors or long-term financing [2.1; 2.2].

However, it was shown that financial support from the government can be challenging where stigmatization of oil palm has complicated the relationships between producer organizations and the government, and has thus limited smallholder access to financial credit [2.2]. It is essential that smallholders have long-term delivery contracts, and/or have achieved certification for current plantations; each of these factors can provide an assurance that smallholders will have the financial capacity to repay loans, even if not until production begins. Credit availability was also made possible by some public authorities that support oil palm initiatives [2.6], although half of all smallholders were not aware of the details and conditions of their contracts. Agreements between smallholders and the companies must also be clearly documented to guarantee equitable and long-term relationships [1.5].

Producer organizations play a key role in improving equity and inclusiveness in value chains (Pasicznik and Savenije 2015). They help to facilitate smallholder access to external inputs such as fertilizers at a fair price and provide independent advice on what how and when to apply them [2.5]. Implementing more frequent harvesting schedules can increase profitability, but this works only when farmers and other actors (transporters, traders and mills) are aligned [2.5]. Also, cooperative structures used by producer organizations have allowed co-ownership of mills, a crucial factor for increasing profits and poverty alleviation [2.2]. However, smallholders will still need to improve their collective actions to be able to have any influence in the global supply chain [1.5].

Collaboration is another prerequisite for success. When mills, cooperatives and traders align activities to commonly agreed arrangements, there is a greater inclusion of smallholders in the supply chain [2.5]. Furthermore, profound crises related to production or product price can be overcome through coordinated long-term actions by private and public partners [2.1]. Some articles address both business models and technical innovation [e.g., 2.1; 2.3], and one article concludes that for more inclusive and sustainable palm oil production, both approaches are required [2.3]. Without technical innovation, production on degraded land cannot be both profitable and also ensure the restoration of biodiversity and ecosystem functioning. Without innovative financing and business models, farmers

will struggle to engage in ways that allow them to participate in the value chain and improve their livelihoods. However, current approaches to engaging smallholders are rarely characterized by such dual innovation, and agro-industrial production models still dominate. Importantly, the development of appropriate schemes for smallholders requires their direct participation in the design phase (see also Chapter 4 for examples).

Oil palm is about more than just palm oil

Articles in Chapter 3 mention improved socio-economic benefits for smallholders, such as increased farmer income, market access and profit-sharing, but also highlight a number of other issues that were considered to be largely overlooked in the current discourse.

Oil palm cultivation offers a constant cash income from regular harvests and a steady demand, allowing thousands of smallholders to invest in improving their farms, improving environmental conditions and providing education for their families [2.1]. Oil palm also provides opportunities, especially for smallholders preparing for retirement, by guaranteeing a regular income where before there was none [3.2]; in some countries, smallholders can expect to receive more than 50% of the profits from milling [4.1]. In the Democratic Republic of Congo (DRC), smallholders are the main suppliers of domestic produce and their views must be taken into account in the development of all relevant agricultural policies [3.2]. But what is seen is that some smallholders are being excluded or left behind, as certain business models tend to intensify social differentiation between farmers, with risks of impoverishing a number of smallholders [2.6]. In addition, differential treatments, unequal profit margin distribution and the lack of transparency further exposes smallholders who lack bargaining power [5.1].

Palm oil production must consider the multiple needs of sustainably diversifying income, ensuring food security, and protecting cultural values. In DRC oil palm is an indigenous crop and has been a part of daily life since pre-history, so people see it differently than in places where it has been introduced in Asia and the Americas [3.2]. In DRC, oil palm is a component of a broader farming and cultural system that relies on communal decision making. As such, for oil palm cultivation to be inclusive for smallholders, it must include the farming livelihood decisions of local people and build on their ideas [3.1]. It is important to take a community perspective and look beyond the oil palm monoculture paradigm for smallholder development, taking into account that no country wants to convert all its agricultural lands to oil palm [3.1]. In Indonesia, community-based rotational intercropping creates various livelihood opportunities for farming communities, particularly in areas where not all community members have formal or customary land ownership rights [3.1]. And as seen elsewhere [e.g., 5.2], many smallholders try to merge oil palm with other crops for a more diversified livelihood, and communities decide whether to engage in oil palm cultivation, on what land, and under which terms of inclusion [5.3].

To achieve inclusiveness and sustainable livelihoods for smallholders, empowerment and equality is essential. Smallholders show that they are using their creativity and experience to develop viable livelihood options themselves; for example, the landless farmers intercropping on the plantations of others in Indonesia [3.1]. In other cases, it is acknowledged that inclusive palm oil production can deliver benefits for smallholders, but for this to occur, collaboration between artisanal and industrial exploitation is imperative [3.2], as is realized by some private companies through local inclusion and certified sustainable practices [4.1]. But smallholder development should not be seen in such simple terms, and



Old oil palm tree in a village in DR Congo. Photo: Roderick Zagt

more experience “from the ground” will allow a better understanding of the true desires of producers and their families [3.1], reflecting their realities, needs and ambitions.

Corporate experiences and strategies

Articles from private companies in Chapter 4 emphasize that for them, smallholder inclusion is a valuable part of their respective business models. For example, local inclusion through participatory community meetings, along with the promotion of certified sustainable practices, are an integral part of doing business [4.1; 4.3]. Examples from Papua New Guinea exemplify this; there, intense participatory processes are used to determine high conservation value and high carbon stock areas, while also ensuring that enough land is set aside (0.5 ha per person) for community use so that people have enough land for subsistence and commercial farming [4.1].

When engaging with smallholders to build trusting relationships, patience is paramount, as land acquisition for plantation development is a complex and fragmented process involving many actors and activities dispersed over place and time [5.3]. In Papua New Guinea, it takes at least three years, from receiving an unsolicited expression of interest to signing a development agreement [4.1]. Achieving sustainable and equitable palm oil production requires more structural approaches than simple adherence to the principles of free, prior and informed consent to protect rural livelihoods, and must be based on respect for pre-existing ways of using and understanding land, prior to any land acquisition activities [5.3]. It is crucial to understand the many and various livelihood constraints of smallholder communities, and to perceive that livelihood support is important to ensure successful stakeholder engagement in food insecure areas [4.3]. Additionally, it is essential to create solid farmer and community outreach structures and use innovative and bottom-up approaches to reach all the

stakeholders involved; committees need to be established early in the process, instead of relying on existing representatives of stakeholder groups [4.3]. Raising awareness and dialogue through multi-stakeholder platforms is key in building and maintaining good relationships with local stakeholders and authorities, promoting transparency and allowing issues and disagreements to be discussed and resolved in a fair and open manner [4.3]. Local CSOs can also take important progressive steps forward by guiding community engagement and sensitization processes [4.3].

Elaborating a corporate sustainability strategy does not guarantee that a company will succeed in bringing about sustainable and inclusive development [4.2]. To ensure that this is translated from paper to reality requires that sustainability becomes anchored in the organizational culture and becomes mainstreamed in the company's shared values and beliefs and behavioural norms [4.2]. But ultimately, it is how things evolve on the ground that will eventually determine a company's contribution to smallholder inclusiveness and sustainable development [4.2]. One example is logistics, which are a major factor in business decisions by private-sector producers. In Ghana, the long distances to mills and the poor state of roads prolong pick-up time and affect fruit quality, so it was decided to stop sourcing from the hardest-to-reach areas [4.2]. In Papua New Guinea, local contractors take on significant shares of both road maintenance and transport, also showing that logistics are a major constraint [4.1].

Using tools to enhance smallholder inclusiveness

A number of tools can help to develop strategies that lead to more inclusive and sustainable solutions (Chapter 5). For example, role-playing games allow decision makers to better understand the needs, constraints and aspirations of all stakeholders in the supply chain, and to pay greater attention to feedback and to the variables that affect social, economic and ecological processes [5.1]. This understanding was achieved by creating conditions for integrative dialogue, allowing stakeholders with different and sometimes opposed objectives to better understand each other, and to negotiate joint strategies.

At the community scale, village-level planning and mapping has proved valuable in providing leverage when negotiating with companies and the government in Indonesia [5.3], and village assemblies are a tool that has given communities a new voice [2.4]. But it is important that such processes are genuinely participatory and inclusive, and that they involve both women and men, and representatives from various social classes and ethnicities [5.3]. There are examples where a company eventually cancelled its plantation project after community protests [e.g. 5.3].

On a technical level, crop growth simulation models are also useful tools. They allow the assessment of the long-term effects of different intercropping systems, leading to more accurate information to support smallholder decision making [5.2]. In Indonesia, drones were used to make high-resolution photographic maps [5.3] that facilitated village-level planning and mapping. Another example comes from Colombia, where technological innovations were explored to enhance monitoring and support to smallholders [2.1], such as a mobile app that producers can use as digital self-assessment tool to assess the sustainability level of their farm.

Ways forward

Based on the articles and on other literature and experiences, the following possible next steps can increase smallholder inclusiveness in palm oil production. To increase smallholder inclusiveness, empowering farmers to take more control in the value chain is seen as an important factor [1.5; 2.2; 5.3]; for example, by co-owning mills as shown in Honduras [1.4] and Peru [2.2]. But for farmers to do so requires the institutionalization of structures that give them a voice and strengthen their level of organization and their internal functioning, not just give them a nominal “seat at the table.” Various examples are presented [e.g., 4.1; 5.3] of different participatory and transparent processes that have been proven to work, and which could be replicated and scaled up. The same transparency must also hold true downstream in the value chain; i.e., farmers must be able to hold cooperatives accountable, and cooperatives must be able to hold mills and companies accountable.

Intercropping oil palm with other crops appears to be a viable model with myriad benefits. According to several articles, there was wide interest in diversification in the different farmer typologies analyzed. Key motivations included potentially greater resilience to market risks and price fluctuations [3.1; 5.2], optimizing the use of scarce labour [3.1], enhancing food security from integrating food crops, and improving soil through green manure [2.3]. Increased agrobiodiversity and contributing to more heterogeneous landscapes could be additional motives (Azhar et al. 2017). However, it is important to note that so far, intercropping is practiced predominantly in the 3- to 4-year juvenile stage before oil palms started fruiting. For permanent intercropping throughout the 25-year production cycle, new planting configurations are needed and various crop combinations require further investigation [5.2]. Potential barriers include higher costs, the need for a second supply chain and market infrastructure, and the knowledge-intensive nature of intercropping in comparison to standard monoculture.

Companies currently place a strong emphasis on training, especially for implementing best management practices, although according to articles in this issue, some companies appear to equate training with increased inclusiveness; this is not necessarily the case. And often there is still no engagement with communities before concessions are awarded, leading to some communities treating oil palm development as a threat. Crucial for a more inclusive palm oil sector is the strengthening of village economies, community autonomy and producer organizations, so they can decide themselves whether to engage in oil palm cultivation, and if so, on what land, and under what terms [5.3]. For companies, there is a need to strengthen their corporate strategies and to include innovative and inclusive finance models (see, e.g., Savenije et al. 2017).

Governments too should play a larger role, especially in developing and implementing more effective enabling policies to support increased inclusiveness in oil palm, as well as with other deforestation-risk commodities. These policies should build on existing commitments made in the New York Declaration on Forest and the Amsterdam Declaration, among other initiatives (Pasiiecznik et al. 2017). Key points could include support for agreeing on clear definitions and standards, promoting more national and local government involvement, increasing corporate transparency and accountability, and more jurisdictional actions.

An issue for all actors in the supply chain is the scope and impact of certification. Although numerous articles show a clear role for certification, there is also a perceived need to look beyond this. For example, are voluntary commitments enough? What additional measures are needed to make certification as an instrument effective? The weak points are that certification is dependent on well-functioning

cooperatives or associations, and on good record keeping, which is a challenge for smallholders, and that investments lead to higher costs and lower incomes in the early years. The question therefore remains: how can successful pilots be scaled up, given the efforts needed by NGOs and companies to get a few farmers certified? This issue of *ETFRN News* presents several cases where one or more of these barriers have been overcome.

Summing up, this issue of *ETFRN News* presents many cases where real progress towards more smallholder inclusiveness has been made, with benefits for all, through a range of initiatives, such as intercropping, landscape approaches, strengthened communities and producer organizations, innovative business models, and new technology. This publication provides a diverse array of ways forward to make palm oil production more inclusive.

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