

## **The Terpercaya Initiative**

## Exploring options for traceability in the jurisdictional approach to sustainability

### Introduction

The jurisdictional approach to sustainable commodity production aims to upscale progress in transitioning to sustainability by applying sustainability principles and criteria across all commodity producers within a jurisdiction. In doing so, it diverts from traditional certification approaches that focus on individual plantations or mills by compiling information on sustainability criteria for an entire jurisdiction (such as districts or provinces) to determine overall sustainability performance.

By combining the power of markets and government regulatory frameworks, this approach can stimulate progress at the district, provincial and national level, and incentivise commitment from co-dependent producers wishing to meet the requirements of buyers in sensitive markets, such as the European Union (EU). It can further galvanise support by involving supply chain actors and other stakeholders in the development of sustainability targets and could also reduce the costs of achieving and demonstrating sustainability.

To ensure the sustainability of commodities where regulatory standards do not reach consumer market requirements, agribusinesses have had to focus on their own, individual sustainability commitments, and trace products all the way back to the producer at farm level. Suppliers that are not part of a sustainable supply chain or cannot meet requirements – such as many independent smallholders – can often be excluded. While the jurisdictional approach is promoted to ensure inclusivity and offer a simplified, more effective and cheaper approach than conventional certification, several questions need to be answered in establishing a functional traceability system that limits the risk of smallholder exclusion. For example:

- What minimum level of information is required to provide evidence of the source of sustainable palm oil from a jurisdiction, or set of jurisdictions?
- · What level of stringency in traceability systems is acceptable?
- Are traceability systems only necessary for districts deemed to be sustainable?
- · Can historical traceability data be used to guide purchasing? If so, to what extent?
- Can leakage<sup>1</sup> be prevented without full registration and traceability at the farm level?
- Are regulatory interventions necessary to provide the information required for a functioning traceability system?
- Is traceability possible in districts that do not have complete data about their resident smallholders?

This briefing addresses the above questions and reviews traceability systems, including those initiated by certification schemes, agribusiness and non-governmental organisations (NGOs). It outlines key considerations and proposes model traceability systems that would meet jurisdictional sourcing needs under the Terpercaya Initiative<sup>2</sup>.

### What is traceability?

Traceability is the ability to track and trace the components used to produce goods back to the companies or jurisdictions that produced and/or supplied them (Mol and Oosterveer, 2015<sup>3</sup>). For agribusinesses, this usually involves coordinating logistics and sharing information on the entire supply chain, through the adoption of integrated management systems.

Four types of traceability systems that track information on the quality of products and production processes for different target groups have been identified<sup>4</sup>:

- Management traceability systems that usually provide downstream customers with product quality information from upstream producers.
- Regulatory traceability systems that usually provide regulatory and inspection bodies with product quality information from producers, as required by regulations such as the EU's track and trace policies for mad cow disease and bird flu.
- 3. Consumer traceability systems that track and verify information from along the value chain to assure consumers, as well as public and private certification bodies, of the quality and sustainability of production processes and products, and to validate associated claims.
- 4. Public traceability systems that provide information on the sustainability of production processes and product characteristics to safeguard the reputation of supply chain actors, thereby enabling them to gain a competitive advantage.

<sup>4</sup> Ibid.

<sup>&</sup>lt;sup>1</sup> In the context of sustainability, leakage refers to unintended displacement of impacts caused by an environmental policy intervention or a project.

<sup>&</sup>lt;sup>2</sup> The Terpercaya Initiative is led by the Indonesian Ministry of National Development Planning (BAPPENAS) and funded by the EU. Launched in 2018, it evolved from a study to become an inclusive, legitimate, nationwide system that tracks sustainable palm oil and defines district sustainability at scale across Indonesia. The initiative is currently supported by the Keberlanjutan Sawit Malaysia dan Indonesia (KAMI) project, which aims to reinforce EU-Indonesia and EU-Malaysia partnerships by supporting national processes and international dialogues on the sustainable use of natural resources, with a focus on palm oil.

<sup>&</sup>lt;sup>3</sup> https://www.mdpi.com/2071-1050/7/9/12258

Currently, four models are in common use to trace and verify product quality and sustainability for agricultural commodities<sup>5</sup>, namely:

- Identity preservation. This model ensures that the certified product can be traced to identified producers. It operates by keeping certified products physically separated from non-certified products at each stage of the supply chain, thereby maintaining the identity of a product's origin to the point of delivery to the end user.
- 2. Segregation. This model assures end users that a product fulfils all certification requirements by separating it from non-certified products. However, it does allow for situations in which products from different certified sources are mixed by transporters, traders or processors. Therefore, it cannot uniquely identify a product or trace it back to an identified producer.
- 3. Mass balance. This model ensures that the downstream volume of certified products equals the upstream volume of certified products in a value chain. However, this model allows certified produce to be mixed with non-certified produce after it has been registered at the farm gate. That means end users cannot connect a certified product to its point of registration at the farm gate.
- 4. Book and claim. This model traces the certified product through a central registry associated with a platform that enables producers and manufacturers to trade certificates. Such trading platforms require an effective monitoring and registration system, a certificate market and a central registry.

These models are currently implemented by the Roundtable on Sustainable Palm Oil (RSPO). In 2020, around 48% of the total volume of sustainably certified palm oil purchased globally was traced under the identity preservation and segregation models, while around 27% and 23% was traced under the mass balance and book and claim models, respectively<sup>6</sup>.

As public scrutiny of agricultural commodities increases, several platforms have been established by NGOs to provide information on supply chain deforestation and sustainability, including Global Forest Watch; SPOTT; Landscape Accounting Framework; CIFOR Atlas; and Trase. Most apply a risk-based approach built on assessments of mills and sourcing areas using social and environmental criteria, such as deforestation risk. In conjunction with supply chain traceability information that may also be provided, voluntary users are given the opportunity to mitigate their risk in sourcing commodities from different companies and locations. Several major companies have publicly announced that they use a risk-based approach in their supply chain profiling, policy compliance, stakeholder engagement for palm oil traceability, and assessment of suppliers' needs regarding capacity building and recommendations on sustainability.

<sup>5</sup> Ibid.

<sup>6</sup> https://rspo.org/impact

# Traceability in the jurisdictional approach: palm oil supply chain

The jurisdictional approach to sustainability provides potential additions to existing certification schemes. Supported by the RSPO, this view has traction because conventional and jurisdictional certification systems use similar traceability methods and require local governments to regulate in relation to high conservation areas, fire and peatland, social conflict and human rights, etc.

Several organisations, including Trase, have piloted risk-based means to track palm oil from consumer countries back to jurisdictions of production, and to present associated jurisdictional sustainability performance data. Supply chain actors, including buyers, can use such information to determine the appropriate level of due diligence required when sourcing palm oil from districts with different levels of sustainability risk.

#### Gaps in supply chain traceability

While risk-based approaches to traceability can be used in conjunction with jurisdictional approaches, gaps in supply chain information can reduce their effectiveness in supporting progress towards sustainability and deforestation-related goals. In Indonesia, mills often rely on third-party suppliers and independent smallholders to meet their processing capacity. Yet information about relevant purchasing agreements is usually not available and smallholders frequently sell different volumes to different mills at different times. Additionally, most Indonesian districts do not have complete data on resident smallholders, including those who commonly supply mills in adjacent districts. Figure 1 illustrates this by showing smallholders and mills located along the main road between Seruyan and Kotawaringin districts. The situation makes it possible for roadside villages to sell to neighbouring districts, which they routinely do.

Another missing link in the supply chain concerns informal traders. Many such traders do not have direct purchasing agreements with mills (known as delivery orders) or they deliver to mills using other traders' delivery orders. Interactions are built based on mutual interest whereby smallholder farmers may prefer informal traders to pick and deliver fresh fruit bunches to mills, and traders, on their part, may prefer to sell to mills offering the best price or other benefit/s rather than committing to a delivery order. A study carried out by Inobu in 2016 found that 93% of farmers in Kotawaringin Barat district and 72% in Seruyan district sold their products to informal traders<sup>7</sup>. Currently, no regulations stipulate requirements for registration of informal traders.

<sup>7</sup> https://inobu.org/report-a-profile-of-oil-palm-smallholders-and-the-challenges-of-farming-independently



**Figure 1.** Smallholder plots in relation to palm oil mills in the districts of West Kotawaringin (Kotawaringin Barat) and Seruyan. Source: Inobu

#### Sourcing patterns

In designing a jurisdictional traceability system, sourcing patterns must be foreseen. If sustainable jurisdictions are given better access to certain markets, traceability approaches must address cross-jurisdictional supply to avoid leakage. For example, palm oil produced in sustainable jurisdictions may need to be segregated from palm oil from other jurisdictions, with traders ensuring that consignments are sourced from within the appropriate district. At the very least, it is necessary to know how much cross-jurisdictional product is entering the supply chain. Even if regulations recognising the jurisdictional approach as a means to inform sourcing decisions are not forthcoming, districts that are verified as sustainable could still benefit from preferential sourcing by companies adhering to voluntary commitments.

#### Supply chain information

Under both conventional sustainability certification and jurisdictional sustainability systems, certain information will need to be maintained and disclosed by supply chain actors, as listed in Table 1. Palm oil mills currently maintain most information except for data related to smallholders and traders, which is often unavailable due to lack of formal registration.

Table 1. Information that should be maintained and disclosed along the supply chain

Smallholder	Trader**	Mill	Refinery	Consumer good company
Smallholder ID	Trader ID	Mill ID	Mill ID	Mill ID
Location of the farms	Location	All smallholder IDs	All smallholder IDs	All smallholder IDs
Transaction volume per trader	Smallholder ID	All trader IDs	All trader IDs	All trader IDs
STDB*	Another trader ID supplying under the trader contract to the mill	Data on plantation/s owned by group and volume of fresh fruit bunches (FFB) supplied to the mill***	All mill IDs	All mill IDs
	Mill ID	Volume of transaction with traders who maintain information on their suppliers	Volume of transaction with mills that maintain information on their suppliers	Volume of transaction with refineries that maintain information on their suppliers
	Volume of transaction with smallholders, other traders and mills	Volume of transaction with other mills that maintain information on their suppliers	Volume of production and sales with each buyer for each product	
		Volume of production and sales with each buyer	Volume shipped to other regions for each product	
		Volume shipped to other regions		

\* STDB (Surat Tanda Daftar Budidaya) is the Cultivation Registration Letter. This is compulsory for anyone who cultivates a land area under 25 hectares.

\*\* Trader data is usually maintained by the mills that hold their delivery orders. However, many informal traders also purchase FFB from smallholders and transport them to the mill. All traders along the supply chain should be registered and information on them should be maintained and disclosed.

\*\*\* The Government collects and maintains data on large-scale oil palm plantations through the process of Penilaian Usaha Perkebunan, or Plantation Business Assessment.



Independent oil palm smallholder in Central Kalimantan

#### A stepwise approach to full traceability

There is consensus among stakeholders that full traceability (segregation and identity preservation) is ideal to verify the quality and sustainability of agricultural commodities. However, in the case of palm oil, this presents several challenges. In designing a jurisdictional traceability system, a stepwise strategy may provide the best way forward.

A risk-based jurisdictional traceability approach could be implemented as an interim solution until data on independent smallholders and traders is sufficiently available for a segregated traceability. Under this approach, mills in a sustainably verified jurisdiction could be required to purchase solely from smallholders and others located in the same jurisdiction, or adjacent sustainable jurisdictions, as a condition for involvement in associated jurisdictional sourcing systems. This would have implications for producers in neighbouring jurisdictions, however, and would disrupt supply chains to some extent. As such, there could be resistance from third party suppliers and smallholders upon which the mill might also depend and the benefits of such a system would need to exceed the costs.

In moving towards a fully segregated model, the Government could regulate data collection and reporting processes such that supply chain actors would be mandated to maintain and share information that verifies the product's origin. Such regulations could build on existing practices by requiring all supplies from smallholders to mills to be made through delivery orders, which could also be used to collect additional information. A regulation requiring the registration of informal traders could also be issued although as smallholders are registered and formalised, their role may diminish.

Efforts to map and register independent smallholders could also be accelerated – a process specifically tracked by a dedicated Terpercaya indicator and supported under the National Action Plan for Sustainable Palm Oil Production (Rencana Aksi Nasional – Kelapa Sawit Berkelanjutan or RAN-KSB).

If data collection, maintenance and reporting requirements are stipulated by the Government, traceability systems could become increasingly reliant on data sourced through regulatory measures. To verify information and ensure effective system functioning, requirements could be put in place for independent monitoring and verification, potentially through control organisations periodically and randomly conducting checks and inspections.

# Further research for an effective and efficient traceability model

Several questions need to be answered in deciding the design of a jurisdictional traceability system, including:

- Is it feasible to collect and maintain necessary data considering the complexity of the palm oil supply chain or can a model or proxy information meet requirements?
- What minimum level of information is required to provide evidence of the source of sustainable palm oil from a jurisdiction, or set of jurisdictions?
- Would a declaration of the identity of supply chain actors be sufficient without information on product volumes?
- Is it feasible to require supply chain actors to disclose all necessary information, given that some may be legally protected?
- Is it feasible to segregate products from adjacent districts?

Further research into these issues is required to design an effective and efficient traceability model for the jurisdictional sourcing of sustainable commodities.

Cover image: Oil palm plantation and the forest in Sentabai Village, West Kalimantan. Photo: Nanang Sujana/CIFOR.

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#### Disclaimer

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