

TECHNOLOGY AS AN ENABLER FOR SMALLHOLDER INCLUSION AND EUDR COMPLIANCE

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Challenges in Smallholder Inclusion for EUDR compliance

STRUCTURAL

- There is **no real time visibility** of smallholders in current supply chains.
- Land Title data and polygons of Smallholder's land is not easily available.
- **End buyers have no visibility of Smallholder supplies**, and it is extremely difficult to quantify.
- Extremely difficult to ascertain if smallholder land and nearby areas are deforestation free.
- There is **no formal record keeping of supply chain transaction data** at smallholder level
- There is no clear guidance from EU as to how Smallholders will be supported financially if they are to become part of EUDR compliant supply chain
- **Many MNCs have smallholder initiatives that are discrete**, smaller in scale and expensive to create a meaningful impact
- **Government initiatives** for smallholders are run independent **of EUDR** requirements and **not well coordinated** to meet market expectations.



Challenges in Smallholder Inclusion for EUDR compliance

B. SOCIAL

- Nearly **8 million** Smallholders supply about **40% of global oil palm output**. They are distributed in different geographic regions globally and difficult to reach.
- Most Smallholders are less educated are older. The next generation in Smallholder families don't see farming as an attractive career.
- It is **not easy to train smallholders on sustainability** requirements.
- There are a **few organized smallholder organizations** but by and large most smallholders are independent and therefore **difficult to mobilize**.
- Smallholders speak different languages, and it is not easy to create communication and training programs.



Challenges in Smallholder Inclusion for EUDR compliance



C. ECONOMIC

- Smallholders do not have adequate **resource or training to be RSPO certified** but can be included under national mandatory certification systems such as MSPO/ISPO.
- There is **no mechanism to incentivize Smallholders** to get a fair market price, buy agri-supplies competitively or get easy access to working capital
- Coordinating **Harvesting & Transport** is cumbersome and causes undue delay and **increases cost to Dealers & Millers**.
- Downstream supply chain stakeholders find including Smallholders an **onerous task** that they feel might increase their cost substantially.
- **Smallholder yields are way below national average** thereby dragging the entire industry average yields.

How can Technology be an enabler for Smallholder Inclusion & EUDR compliance?



A. STRUCTURAL

- Help create a **Digital Ecosystem** that captures real time supply chain transactions including last mile connectivity to smallholders providing end to end visibility and traceability.
- **Develop smart technology** partnerships with Satellite imaging companies that provide real time deforestation data all the way to the last mile.
- If Government laws do not permit or **make available polygons for small holder land titles**, use sophisticated satellite imaging technology to provide the best measure of deforestation around smallholder land.
- **Digital supply chain data** can become immutable when it is kept as a digital repository on a Blockchain platform for **due diligence & sustainability authentication**.
- Provide indisputable **due diligence record for EUDR compliance**
- Channel **EU & MNC incentives to smallholders** based on their exact contribution of sustainable commodity supply using **Digital Tokens**.

How can Technology be an enabler for Smallholder Inclusion & EUDR compliance?

B. SOCIAL

- **Use of user-friendly Mobile Apps** in their own language with very minimum skills to reach out to smallholders in the remotest corners of the world.
- **Technology** is also available to carry out **supply chain** transactions even without mobile network.
- Use of **Mobile App technology** will appeal to the **younger generation of smallholders** who otherwise are not keen on continuing farming.
- Use of **digital training videos** can help train smallholders in good and sustainable agricultural practices



How can Technology be an enabler for Smallholder Inclusion & EUDR compliance?



C. ECONOMIC

- Smallholder Apps can be provided totally free of cost to them.
- Data analytics generated from the digital records will help them improve yields & quality.
- Providing real time market pricing information will empower smallholders to get a fair price for their produce.
- Building scheduling algorithms as part of the technology modules will enable easier coordination between smallholders, Dealers & Millers thereby saving cost for each of them.
- Contrary to common belief, technology will reduce cost of doing business for smallholders and every stakeholder like Dealers, Millers, Refiners, Oleo plants and end buyers by improving productivity through digital transformation that will reduce manpower, improve yields, efficiency & productivity.
- Digital supply chain data will enable provision of low cost working capital and competitive agri-supplies by connecting financial institutions, fertilizer companies etc directly to smallholders.
- Immutable data of smallholder supply will enable routing incentives that can be provided by EU or MNCs directly to smallholders with ease.

There is an urgent need for a comprehensive 'Digital Ecosystem' that maps the entire supply chain including smallholders



Smallholder Mobile App

Connecting Enterprises to Smallholders directly for support and incentives.
Support those Smallholders who contribute to your Supply Chain.

Industry Players:

- MNCs, NPOs/NGOs
- Agricultural Institutes & Regulatory Bodies
- Financial Institutes
- Training & Awareness Video content providers
- News & Updates from authorized agencies
- Farm equipment, fertilizer, seed suppliers



Technology Platform:

- Marketplace
- Field Agents
- Educational Content
- Analytics/Insights
- Digital Tokens / Payment Gateways
- Financial support
- Interactive platform

THANK YOU

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