KEY TAKEAWAYS

Data Harmonization and Interoperability to Navigate Deforestation-Free Compliance in the Palm Sector

November 2023

Forest Data Partnership

In November 2023, the Forest Data Partnership (FDaP) brought together palm oil supply chain stakeholders for a workshop held in Jakarta, Indonesia. The two-hour session focused on the key data challenges related to compliance with deforestation-free regulation, standards and policies.

The objectives for the session were to develop a shared understanding of the current data challenges, which can be largely categorized into two main themes: *1) Geolocations and traceability* and 2) *Forest monitoring;* and discuss potential solutions to interoperability of traceability systems and data collection efforts, particularly farm geolocation data.

Finally, FDaP representatives presented innovative solutions that are in progress to harmonize existing data sets to support monitoring and due diligence, such as a new palm probability layer for 2020 for Indonesia and Malaysia that uses a community machine learning model to harmonize land cover/use maps.

We invite anyone interested in using the model, the layer or providing validation data to connect with our team at forestdatapartnership@wri.org.

Key Takeaways:

- **Coordinated action is needed to tackle these pressing challenges to promote more efficient implementation of tools and solutions.**

- Currently, there is little coordination across individual efforts to collect, manage and distribute geospatial data. This is exacerbated by the rapid proliferation of commercial service providers and the growing commercialization of data.
- Some of the key data elements in urgent need of standardization are geometries/boundaries, data formats, attributes and IDs, and quality and validation processes.
- Addressing the complexities surrounding data sharing is vital and requires broad stakeholder participation.

- **There needs to be alignment on best practices when it comes to ethical, technical and legal issues in data sharing in order to drive forward responsible, trustworthy data sharing.**

  a) *Ethical challenges:*
  - Farm-level data lies at the heart of many traceability solutions, yet many smallholder farmers are not in charge of their own data. They may be uninformed regarding the potential value of their data, or in some cases, there may be privacy and security risks, or legal or financial implications of sharing their data. This makes it critical to ensure farmers give free, prior and informed consent to collect and share their data. However, current efforts do not include robust protocols to address such ethical considerations and there is a lack of best practice guidance on this topic overall.
  - There must be incentives to ensure smallholders are an equal partner in the data ecosystem. Governments in commodity-producing countries should create such incentives and support greater transparency in data flows.
  - Smallholders often lack access to tools, online connectivity, information and financial resources. It is critical to take their needs into account and look at ways of enabling and empowering them when designing incentives.

  b) *Technical challenges:*
  - Currently, data lives across multiple service providers and institutions, and the systems used do not connect, making it difficult to exchange and integrate this siloed information.
  - While it is unlikely there will be convergence towards a single traceability platform or solution, moving towards "API first" development would help, improving interoperability between systems. This requires greater coordination among providers, which data users can encourage through a collective push.
  - Getting stakeholder alignment around data verification protocols and standardization, and incentive schemes, is critical for any efforts towards data integration to be successful.

  c) *Legal restrictions and commercial sensitivities:*
  - Changes in regulation have led to inevitable legal implications such as country-specific restrictions on sharing and publishing farm boundaries.

- Supplier willingness to share data remains a primary obstacle to meeting deforestation commitments, so ensuring the privacy and security of data along the supply chain is vital.
- Having aligned approaches to data collection across different sectors would be particularly valuable as many end products use more than one forest-risk commodity.

Potential areas for coordinated action:

There is a consensus around the need to collectively develop some form of a universal asset registry. Using lessons from the development of the Universal Mill List, the coordinated system should capture, validate and manage data. This would include alignment or protocols on data formatting and validation, ID systems and attributes. Such a system needs to be accompanied by:

- Coordination with national systems
- The establishment of clear data ethics guidelines that prioritize smallholder interests and data
- Alignment on data sharing agreements

Engagement with traceability platform providers is essential to promote interoperability, along with a transition plan that ensures all stakeholders are included in the process. This Universal Asset Registry could potentially be piloted at the jurisdictional level, e.g. jurisdictions that are preparing for EU compliance.