Digital Public Infrastructure for Deforestation-Free Supply Chains

What is DPI?

Digital Public Infrastructure (DPI) is a set of essential digital systems that facilitate secure and seamless interactions between people, businesses, and governments.

Think of DPI as digital train tracks or power lines: They connect everything and ensure that information, payments, and data can flow secure and freely.

DPI systems are:

- **Publicly accessible:** Designed to serve the common good
- **Interoperable:** Built on open standards so different systems can connect and operate seamlessly together

Interoperable means able to work together with other systems or tools seamlessly.

DPI is laying the **groundwork** for a **modern digital state and economy**.

How can DPI foster deforestation-free supply chains?

New regulations like the **EU Deforestation Regulation (EUDR)** require companies to prove that certain products (e.g. coffee, cocoa, soy, palm oil) are not linked to deforestation. But many of these products come from complex global supply chains involving smallholder farmers, cooperatives, exporters, and certifiers. Ensuring transparency across such systems can be costly and difficult – especially for those with limited digital capacity.

This is where DPI makes a difference. It offers shared, open digital tools that allow:

- Accurate mapping of production areas
- Collection and verification of fieldlevel data
- Monitoring of land use change over time
- Reliable product traceability along international supply chains

With DPI, these tasks become more transparent, more affordable, and more inclusive – benefiting not only big companies but especially farmers and producer organizations by enabling them to effectively implement digital solutions and access regulated markets.

What does this look like in practice?

A consortium of the **Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), the Food and Agriculture Organization (FAO), the World Resources Institute (WRI), Linux Foundation/AgStack, the Consultative Group for International Agricultural Research (CGIAR), the European Forest Institute (EFI)** and others is currently developing various interoperable prototypes to build an integrated, open-source Digital Public Infra-structure. These tools are designed to support compliance with the **EUDR**, including:

Tool	Purpose
Open Foris Ground	Open Foris Ground is an open-source, map-based data collection platform. Designed for non-technical users, it enables smallholder farmers to digitallycollect and manage their farm data, including EUDR-relevant information such as commodity and polygon data. Ground works both online and offline and requires little to no training.
GeoID	GeoID is a web service that assigns a unique, anonymous 64-digit Geo-ID to agricultural land parcels. It serves as a geolocation standard that facilitates the seamless exchange of polygon data across stakeholders and IT systems.
INATrace	INATrace is an open-source traceability solution for agricultural commodities that enables full supply chain transparency – from farm to final product – via mobile and web applications.
Whisp	Whisp (What IS in that Plot?) is an open-source solution which helps to produce relevant forest monitoring information and supports compliance with deforestation-related re-gulations. It helps smallholders and cooperatives meet EUDR requirements by providing reliable, location-based deforestation risk analyses that strengthen compliance documentation and reduce the risk of market exclusion.

These tools are:

- **Farmer-centered** – designed to empower those producing at the source
- **Modular** – can be used individually or together
- **Open-source** – freely available and adaptable across contexts

These tools are part of the open-source ecosystem supported by **DIASCA (Digital Integration for Agricultural Supply Chains Alliance)**, a multi-stakeholder initiative that brings together international organizations, NGOs, governments, and private sector part-ners to foster collective efforts and create an inclusive and standardized digital ecosystem.

Imprint

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