

ASSESSMENT REPORT

Selected tools for collecting production area data for EUDR compliance

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Sincerely,

Ha Noi, June 2026

Research team



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List of abbreviations

ABBREVIATION	MEANING
App Store	Application store for devices running Apple iOS
Android	Open-source mobile operating system developed by Google and used by phone manufacturers such as Samsung, Oppo, Xiaomi, Huawei, etc.
MAE	Ministry of Agriculture and Environment
CLOUD Act	Clarifying Lawful Overseas Use of Data Act - U.S. law governing access to data stored overseas
Database	Database
DDS	Due Diligence Statement
EC	European Commission
ESRI	Environmental Systems Research Institute - GIS software development company (United States)
EU	European Union
EUDR	EU Deforestation Regulation - Regulation (EU) 2023/1115 on deforestation-free products
FAO	Food and Agriculture Organization of the United Nations
FRMS	Forest Resources Management System
GeoJSON	Geographic JavaScript Object Notation - a geospatial data file format required under the EUDR
GIS	Geographic Information System
GPS	Global Positioning System
IT	Information Technology
iOS	iPhone Operating System - Apple mobile operating system used on iPhones
JICA	Japan International Cooperation Agency
KML	Keyhole Markup Language - a geospatial data file format



Decree	Government Decree
ODA	Official Development Assistance
ODK	Open Data Kit - open-source toolkit for field data collection
OSM	OpenStreetMap - a community-built open mapping project
QGIS	Quantum GIS - open-source geographic information system software
Shapefile	A widely used geospatial data file format developed by ESRI
Server	A server (including computer hardware and software connected to a network) stores and processes data and provides services or resources to other computers
SNRM2	Sustainable Natural Resource Management Project, Phase 2
TLGEO	Top Level Geotools - developer of the GeoCollect tool
TRACES-NT	Trade Control and Expert System - New Technology: the EU trade management system
Track-log	Automatic location-point recording. Depending on device/software settings, the field data collection tool automatically records a coordinate point every few seconds or every 1-2 metres. The collector only needs to mark a starting point, walk around the production plot, and mark an ending point upon returning to the start to close a polygon representing the plot. This feature is typical of handheld GPS devices, although some mobile-phone tools can also perform it.
UNHCR	United Nations High Commissioner for Refugees



Executive summary

A range of tools is currently available for collecting production area data. However, selecting a tool that ensures information security, suits local conditions and, most importantly, meets EUDR requirements remains difficult for local-level managers. This report assesses eight tools commonly used in Viet Nam against criteria including data storage and management; data security, safety and confidentiality; customizability and EUDR compatibility; suitability for different users; data integration; deployment and use costs; the developer; and other technical factors. The report's key findings are as follows:

First, all eight tools have potential for collecting production area data, with distinct strengths and limitations. The assessment indicates that Open Foris Ground, QField and KoboCollect have greater potential where local financial and human resources for production area data collection are limited and data must be collected rapidly.

Second, none of the eight tools fully meets all data-safety requirements under Vietnamese law when deployed using the developers' current default configurations.

Third, costs vary according to how each tool is deployed and maintained, ranging from completely free to paid solutions. For paid tools, in addition to licence fees, users should consider infrastructure costs (such as private server infrastructure) and other related expenses, including server maintenance, operating staff and training.

Fourth, tools developed in Viet Nam generally lack clear public information on data security and maintenance, and offer limited flexibility for form customization depending on the developer. Tools developed by foreign software providers have advantages in functionality, form-design flexibility and management. However, by default, most data are stored on servers located overseas.

Finally, a small number of tools, including QField and KoboCollect, allow users to operate their own data-storage servers independently of the developer. However, this requires professional IT staff to deploy, operate and maintain server infrastructure or to rent cloud hosting. Some tools, such as GeoCollect, vTools Survey and ArcGIS Survey, require licence fees. KoboCollect is highly flexible for form design, but creating polygons remains relatively complex for users and the tool does not automatically calculate area after a production plot survey is completed, which can make field collection of production area measurements difficult.



1. Background

On 31 May 2023, the European Parliament and the Council of the European Union adopted Regulation (EU) 2023/1115 on deforestation-free products (EUDR). The Regulation entered into force on 29 June 2023 and will apply from 30 December 2026 to large and medium-sized enterprises and from 30 June 2027 to micro and small enterprises.¹ Goods may be imported into the EU only if: (1) their production has not caused deforestation or forest degradation after 31 December 2020; and (2) they were produced legally under the laws of the country of production. Before importing goods from the seven EUDR commodity groups² into the EU, importers must submit a due diligence statement (DDS)³ demonstrating that the products are deforestation-free and legally produced. Requirements to provide geolocation data for production plots and evidence of legal production enable products to be traced back to the plot level.

EUDR compliance requires accurate plot-level data, including information such as product type, the person cultivating the land, the plot's geographic coordinates, crops grown, yield and production volume. However, some localities have collected plot information but the datasets remain incomplete. In others, production area data have been collected and stored but are outdated, inaccurate or inconsistent. Missing, incomplete or inaccurate production area data make traceability along agricultural and forestry supply chains for EUDR compliance considerably more difficult.

A production area database, including data on each production plot, provides a strong foundation for supply-chain actors to meet EUDR requirements. Building such a database through manual surveying, collecting plot information with handheld GPS devices and completing paper questionnaires is not practical where production areas are large and dispersed, because it requires substantial human and financial resources and considerable time. With the EUDR set to apply from 30 December 2026, local authorities and commodity sectors have little time to prepare. Using technology and local human resources to collect data is therefore an appropriate approach to meet the timeframe while optimizing resources.

Several technology-based data collection tools now have the potential to support efficient and rapid collection of production area data. Alongside their advantages, however, they have limitations that require attention, including information security, the ability to customize data-collection forms, flexibility in modifying interfaces, compatibility with operating systems (Android or iOS), and the ability to update plot information continuously and regularly (for example, changes in coffee, rubber and plantation-forest production areas). Managers and users should therefore understand the strengths and limitations of each tool before selecting one for their practical needs.

Under the EUDR, traceability requires a wide range of information across the entire supply chain. Information to be collected at the production stage is specified in Articles 9 and

¹ In this context, large, medium-sized and small enterprises refer to EU importers classified according to EU criteria.

² The EUDR applies to seven commodities: cattle, cocoa, coffee, oil palm, rubber, soy and wood, including certain derived products such as leather, chocolate, printed paper, furniture, charcoal and some products derived from palm oil.



Article 2 of the EUDR, including:

- **Product description:** Name of the commodity (for wood products, including the common and scientific names);
- **Quantity of goods:** Mass, volume or another unit of measure as required by the EU;
- **Place of production:** Country of production;
- **Geolocation:** Geographic coordinates of all production plots (point coordinates for plots of up to 4 ha, or polygon coordinates for plots over 4 ha, as defined in Article 2 of the EUDR), together with the date or time range of production/harvest;
- **Supplier information:** Name, postal address and email address of the individual or enterprise supplying the product;
- **EU importer information:** Name, postal address and email address of the importing enterprise;
- **Deforestation-free:** Evidence demonstrating that production has not caused deforestation after 30 December 2020;
- **Compliance with the laws of the country of production:** Evidence that production complies with applicable laws in the country of production.

Among these requirements, geolocation information and the address of the production location (ideally including commune, province, farm address and farm code) are minimum data that should be collected at the production-plot and household levels as an initial basis for EUDR traceability.

This report assesses eight technology-based tools that are commonly used to collect geolocation and production-plot information: (1) GeoCollect; (2) FRMS Mobile; (3) vTools Survey; (4) Agritrack 2A; (5) ArcGIS Survey123; (6) Open Foris Ground; (7) QField; and (8) KoboCollect/ODK. These tools have potential for collecting production area data to support traceability and EUDR compliance in Viet Nam. Most can be downloaded from Google Play and/or the App Store, consistent with the growing availability and accessibility of smart mobile devices. They therefore have potential for broad deployment at household and production-plot levels.

2. Objective

This report provides a rapid assessment of tools used to collect production area data, helping stakeholders - including local management and technical staff - select appropriate tools for collecting data at household and production-plot levels to meet EUDR requirements.

The report assesses only eight production area data collection tools. It does not assess agricultural product traceability systems designed for EUDR compliance or commodity traceability systems established under current Vietnamese law.



3. Assessment methodology

Commodity-oriented agriculture and forestry in Viet Nam - particularly coffee, rubber and plantation timber - is characterized by small, fragmented and dispersed production plots involving many households. Each household often cultivates several parcels, with an average area of less than 1 ha per parcel. These characteristics should be carefully considered when selecting an appropriate data collection tool. In particular, users should consider the following technical requirements:

- The tool should operate in the field without a mobile-network or internet connection;
- The tool should support automatic continuous coordinate recording (track-log), similar to a handheld GPS device;
- The tool should allow users to create points and delineate boundaries to record plot geolocation, with an intuitive, easy-to-use interface;
- The tool should automatically calculate area after the plot boundary has been delineated;
- It should support exporting geolocation data in GeoJSON format. Under the EUDR, plot geolocation must be provided as GeoJSON, so tools that can export GeoJSON directly should be prioritized;
- It should allow photographs to be taken directly in the tool as field evidence for the plot;
- It should allow data to be synchronized or stored locally on the device after collection;
- It should ensure sufficient accuracy of plot geolocation for comparison and verification against the national forest-boundary map system or other systems, where available, in order to demonstrate that production has not caused deforestation.

Based on the characteristics of commodity agricultural production in Viet Nam, consultations with enumerators and data-collection and technology experts, and local leaders' requirements for data collection, we identified eight criteria for assessing the strengths and limitations of each tool:

1. Developer/organization: Assess the reputation and capacity of the organization developing the tool.

2. Data storage and management: Assess how and where data from each tool are stored. Tools that allow users to choose their own data-storage location are given preference.

3. Compliance with Vietnamese laws on data security, safety and confidentiality: Provide information on security based on the technical storage specifications of each tool.

This does not replace an in-depth legal assessment of each tool's compliance with current regulations.

4. Ability to meet EUDR requirements and be customized to local needs or processes:

Assess flexibility in modifying data-collection forms and exported file formats



to ensure EUDR compliance while remaining compatible with mapping systems, processing software and traceability systems for agricultural and forestry products.

5. Usability for different user groups (farmers, technical staff, local managers and businesses):

Assess interface user-friendliness and ease of field operation for each user group.

6. Ability to integrate with existing systems and other tools: Assess connectivity and smooth data conversion with current systems, such as the production area database system managed by the Department of Crop Production and Plant Protection (Ministry of Agriculture and Environment), and EUDR risk-assessment systems such as FAO Whisp⁴. This can support data aggregation and evidence generation for Due Diligence Statements (DDS) submitted by European importers.

7. Deployment and use costs: Provide a preliminary analysis of licence fees, storage costs, staffing and other costs incurred when using the tool.

8. Other issues requiring attention (if any): Consider the size of the user community, emerging issues and tool-specific characteristics that should be taken into account during use.

Using these eight criteria, the report assesses eight tools commonly used in Viet Nam: (1) GeoCollect, (2) FRMS Mobile, (3) vTools Survey, (4) Agritrack 2A, (5) ArcGIS Survey123, (6) Open Foris Ground, (7) QField and (8) KoboCollect. Four were developed by foreign companies or organizations (ArcGIS Survey123, Open Foris Ground, QField and KoboCollect), three by Vietnamese companies or developers (GeoCollect, vTools Survey and Agritrack 2A), and one - FRMS Mobile - was developed under an ODA project supporting Viet Nam's forestry sector and is now used by the Department of Forestry and Forest Protection for forest-resource monitoring and management.

4. Overview of the tools assessed

The tool does not provide a pre-built EUDR form, but it allows forms to be created and polygon coordinates for production plots to be collected. The software has Vietnamese and English interfaces on both iOS and Android and requires a fee.

Data are currently stored on a domestic server and integrated with the national forest-resource reporting system. FRMS Mobile is primarily used for forest monitoring and its forms are difficult to customize to EUDR requirements. The interface is in Vietnamese, the application is currently available only on Android, and it is free of charge (although an account must be issued by the Department of Forestry and Forest Protection).

⁴ <https://vtools.openforis.org/whisp/>



vTools does not have its own server, meaning collected data are stored directly on the device. Users can share data through Google Drive, email, Zalo and other platforms. The software has no pre-built EUDR form but can be flexibly customized. It provides Vietnamese and English interfaces, is currently available only on Android, and charges a monthly, annual or per-account licence fee.

It is the only tool with a form specifically designed for EUDR requirements, already applied to rubber and coffee. The interface is in Vietnamese and can be used on phones through a web platform. Pricing is not publicly disclosed.

Data are stored on servers in the United States; a server can be deployed in Viet Nam at relatively high cost. The software has no pre-built EUDR form, but users can design their own. The interface is available in Vietnamese and supports both Android and iOS devices. Cost depends on whether an individual, enterprise or organizational account is selected.

By default, data are stored overseas on Google Cloud. The tool allows collection of plot coordinates, farmer/household information and field photographs. The interface is in Vietnamese and is currently available only on Android. Use is completely free when the default Google Cloud is used.

Collected data can be stored directly on the device, on QFieldCloud (servers located in the EU), or on a user-managed private server in Viet Nam. There is no pre-built EUDR form, but users can design one themselves (requiring QGIS expertise). The interface is available in Vietnamese and supports Android and iOS. The application is free if QFieldCloud is not used. Deploying a private server to replace QFieldCloud also entails server-maintenance costs.

Collected data can be stored on a Global Server, an EU server, or a Humanitarian Server reserved for humanitarian organizations, depending on the user's choice. There is no pre-built EUDR form, but forms can be customized flexibly. Polygon collection is relatively complex and requires GIS post-processing. The interface is available in Vietnamese and the mobile application is currently only on Android. Registered accounts currently receive 1 GB of free storage per account.

Table 1 summarizes general information on the eight commonly used tools, assessed against the eight core criteria described above.

**Table 1. Summary comparison of eight commonly used tools for collecting production area data**

CRITERIA	TOOLS DEVELOPED IN VIET NAM				TOOLS DEVELOPED ABROAD			
	GeoCollect	FRMS Mobile	vTools Survey	Agritrack 2A	ArcGIS Survey123	Open Foris Ground	QField	KoboCollect /ODK
1. Developer / organization	• TLGeo Company • Headquarters: Ha Noi, Viet Nam.	• Developed under the SNRM2 project, managed and coordinated by JICA (Japan) and the former Viet Nam Administration of Forestry (now the Department of Forestry and Forest Protection). • Currently managed by the Department of Forestry and Forest Protection and integrated into the national forest-resource reporting system.	• Group of independent software developers (legal entity status unclear) • Headquarters: Viet Nam	• Eco-Technology 2A Joint Stock Company • Headquarters: Dong Nai, Viet Nam	• ESRI remote-sensing / GIS company • Headquarters: United States	• Co-developed by FAO and Google	• OPENGIS company • Headquarters: Switzerland	• KoBo Inc. and ODK Foundation.
2. Data storage and management (server)	• Data are stored and managed on a TLGeo server located in Viet Nam. • Users may request that TLGeo transfer collected data to a server	• Data are stored and managed on a server located in Viet Nam. • However, system maintenance and security updates are not guaranteed after the project ended in	• Collected data are stored on the data collector's mobile device rather than on a server operated by the vTools developer. • To consolidate data from multiple	• The developer has not publicly disclosed the server location. • Collected data are managed by EcoTech 2A. The data-backup process is currently unclear, including	• Server located in the United States. Users can deploy a server in Viet Nam, but at high cost because the application is built on a paid platform.	• Data are stored overseas on Google Cloud (United States or EU). • Because the application is open source, users can deploy data storage on another	• Under the default QFieldCloud option, the server is located in Europe. • Users may also store collected data on the mobile device and then share it through platforms	• Collected data are stored on servers in the EU or United States. • As this is an open-source tool, the developer allows users to deploy their own server in Viet



CRITERIA	TOOLS DEVELOPED IN VIET NAM				TOOLS DEVELOPED ABROAD			
	GeoCollect	FRMS Mobile	vTools Survey	Agritrack 2A	ArcGIS Survey123	Open Foris Ground	QField	KoboCollect /ODK
	However, there is currently no clear data contingency policy (storage, backup) or access-management policy.	2025.	survey forms into a database for large-scale reporting and management, collectors may send, share or synchronize data from mobile devices through Google Drive, email, Zalo, Facebook or other chosen platforms.	data management and data deletion.		server outside Google. Technically, however, this is difficult because the application was developed with strong dependencies on the Google ecosystem.	such as Zalo and email, or transfer data from one device to another. Because it is open source, the developer allows users to deploy a server in Viet Nam as needed (with basic guidance and notes for deploying a server in Viet Nam5).	Nam according to user needs.
3. Compliance with Vietnamese law on data security and confidentiality	- TLGeo can commit to data confidentiality if requested by the client. - No public information is available on data security.	- No public information is available on security certification. - No information is available on whether the tool has been assessed and registered for cybersecurity and network security under	- Security and cybersecurity policies are unclear. - No information is available on whether the tool has been assessed and registered for cybersecurity and network security under	No information is available on whether the tool has been assessed and registered for cybersecurity and network security under applicable law.	- If ArcGIS is deployed on infrastructure in Viet Nam, it may be able to comply with the Law on Cybersecurity. - No information is available on whether the tool has been	No information is available on whether the tool has been assessed and registered for cybersecurity and network security under applicable law.	No information is available on whether the tool has been assessed and registered for cybersecurity and network security under applicable law.	No information is available on whether the tool has been assessed and registered for cybersecurity and network security under applicable law.

5 <https://github.com/opengisch/qfield>



CRITERIA	TOOLS DEVELOPED IN VIET NAM				TOOLS DEVELOPED ABROAD			
	GeoCollect	FRMS Mobile	vTools Survey	Agritrack 2A	ArcGIS Survey123	Open Foris Ground	QField	KoboCollect /ODK
			applicable law. assessed and registered for cybersecurity and network security under applicable law.					
4. EUDR compliance and local customization	• No form is specifically designed for collecting information to meet EUDR requirements. However, users can create and modify forms according to their purpose. • Can collect closed-boundary plot polygons. • The tool allows data to be saved on a mobile device and exported to a personal computer, and also supports sync	• Current features mainly support forest monitoring and field reporting by forest rangers. • Forms are difficult to modify or customize to EUDR information requirements.	• No form is specifically designed for collecting information to meet EUDR requirements. • Forms can be flexibly customized for EUDR requirements, including important functions such as boundary delineation and plot coordinates.	• A dedicated form has been designed for EUDR requirements in Viet Nam's rubber sector. However, these forms have not yet been verified for suitability for coffee and timber. • Data-collection forms can be customized relatively simply by commodity type. • More advanced functions	• No form is specifically designed for collecting information to meet EUDR requirements. • Users can design their own forms for practical needs.	• No pre-built form is specifically designed for collecting information to meet EUDR requirements. • Users can customize forms - including plot geolocation, farmer and product information, and field photos - through the web platform or directly through programming. In the field, data collectors use the tool on a mobile	• No form is specifically designed for collecting information to meet EUDR requirements. • Users can design and customize data-collection forms in QGIS Desktop (OPENGIS.ch's desktop mapping software) according to EUDR information needs. • During field data collection, collectors use the tool on a mobile device.	• No form is specifically designed for collecting information to meet EUDR requirements. • Users can design forms on the application's web platform to collect information needed for EUDR compliance. • During field data collection, collectors use the tool on a mobile device. • However, form design requires technically qualified staff.



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	GeoCollect	FRMS Mobile	vTools Survey	Agritrack 2A	ArcGIS Survey123	Open Foris Ground	QField	KoboCollect /ODK
				to meet additional information needs (exporters/ importers, state management agencies, customers, etc.) require EcoTech 2A technical staff to modify the form.		device. • Creating a data-collection form on the web platform is not too complex. Users without a strong technology background can become familiar with it after training.	• However, designing forms in QGIS requires some proficiency with the software.	
5. Usability for different user groups	• Language: Vietnamese. • User-friendly interface for multiple user groups. • Runs on Android and iOS.	• Language: Vietnamese • Familiar to forest rangers; village leaders in some areas have also received training. • Changes to features or form design require approval from the Ministry of Agriculture and Environment.	• Languages: Vietnamese - English • User-friendly interface, easy to learn and use for many user groups. • Runs on Android and iOS.	• Language: Vietnamese • User-friendly interface for multiple types of users. • Web platform can be used on phones, making it accessible to many user groups.	• Language: English • Designing EUDR data-collection forms and testing the tool require an expert experienced in ArcGIS mapping to set up the system (2-4	• Languages: Vietnamese - English • User guidance is available online free of charge in Vietnamese, provided by FAO; • Accessible and easy to use for many user groups; • Runs only on Android.	• Languages: Vietnamese - English • Form-design stage requires experts/technical staff with QGIS skills. If a self-managed server in Viet Nam is selected, staff must also be able to manage and operate the organization's server system.	• Languages: Vietnamese - English • Form-design stage requires technically skilled staff to build forms on the web platform. For field data collection, the mobile app is easy to use for many



CRITERIA	TOOLS DEVELOPED IN VIET NAM				TOOLS DEVELOPED ABROAD			
	GeoCollect	FRMS Mobile	vTools Survey	Agritrack 2A	ArcGIS Survey123	Open Foris Ground	QField	KoboCollect /ODK
		Android.			weeks). • Runs on Android and iOS.	organization.	• The mobile app has a user-friendly interface and is relatively easy for many user groups. In particular, the tool supports automatic continuous coordinate recording (track-log). • Runs on Android and iOS.	user groups. • The tool supports automatic continuous coordinate recording (track-log). • Runs on Android.
6. Integration with existing systems / other tools	• Export file formats: GeoJSON, KML, Shapefile. • Collected data can be readily converted to other management platforms and are compatible with processing and	• Current design cannot export files in formats suitable for traceability systems. • Integrates well with the FRMS system of the Department of Forestry and Forest Protection for assessing EUDR deforestation risk.	• Export file formats: GPX, KML, GeoJSON, Excel, DXF, Shapefile, TAB. • Can integrate other mapping services such as MapBox, Bing, ESRI and offline OSM. It can connect well with other base-map data systems.	• Links and integration with Ministry systems (e.g. the production area database and commodity traceability system) are currently unclear. • Integration capacity	• Export file formats: CSV, Excel, Shapefile, Geodatabase. • Collected data can be readily converted to other database-management platforms (such as production area databases and forest-status databases,	• Export file formats: GeoJSON, CSV, Shapefile. • Collected data can be readily converted to other management platforms and are compatible with processing and reporting software such as	• Export file formats: GeoPackage, GeoJSON, Shapefile, KML, GPX. • Collected data can be readily converted to other databases (such as production area, forest-status and land databases) and are compatible	• Export file formats: XLS, CSV, KML, ZIP or GeoJSON. • Collected data can be readily converted to other management platforms and are compatible with processing and reporting software such as



CRITERIA	TOOLS DEVELOPED IN VIET NAM				TOOLS DEVELOPED ABROAD			
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		EUDR. Other mapping services such as MapBox, Bing, ESRI and offline OSM.		depends on EcoTech 2A.	land databases, etc.) and are compatible with GIS processing software, other dashboards and traceability systems. • The ArcGIS ecosystem is well developed and connects effectively with mapping-analysis tools such as QGIS and database management systems such as PostGIS, SQL, etc.	QGIS, ArcGIS and traceability systems.	with processing and reporting software such as QGIS, ArcGIS and traceability systems. • Can integrate other mapping services such as MapBox, Bing, ESRI and offline OSM.	QGIS, ArcGIS and traceability systems.
7. Deployment and use costs	• Free for the first 2 months after registration. Thereafter, each account costs VND 500,000/year or VND 1.5 million for a lifetime licence.	• Completely free but an access account is required. SNRM2 project support ended in 2025, so additional costs may arise.	• Individual-user cost depends on the licence period (monthly, annual or	• Pricing is not public and must be negotiated as a licence or time-based subscription (e.g. monthly/annual).	• Individual clients: USD 500-2,000/year. • Enterprise/organizational clients: approximately USD 50,000/year.	• Currently completely free for users when using Google Cloud.	• QField mobile and web applications (for managers and form designers) are free. • If QFieldCloud is selected to synchronize data from	• Currently free for registered accounts for general use.



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	GeoCollect	FRMS Mobile	vTools Survey	Agritrack 2A	ArcGIS Survey123	Open Foris Ground	QField	KoboCollect /ODK
	stored on TLGeo's server, the developer provides a full remote-sensing service package.	additional costs related to customizing the tool for EUDR and operating/managing the database after data collection. • Applying the tool to production area data collection requires additional costs and resources, including form customization, operating staff and training for the modified tool design.	per account).⁶ Pricing for organizations, companies and management boards is not publicly disclosed and depends on negotiation between the user and developer.				collectors' mobile devices with the server for cloud data storage and management, the cost is approximately USD 180-600/year depending on the package. • For self-managed private servers, costs are flexible depending on storage capacity and the hardware used by the organization managing the server. • Staff cost for setting up forms in QGIS (5 person-days).	

⁶ vTools Survey individual-account pricing: <https://docs.vtools.xyz/bang-gia>



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	• The tool integrates offline Google basemaps and various forest-resource functions (fire points, drone flight paths, etc.), along with other search-support functions.	• The tool is suitable for verifying forest boundaries as required under the EUDR.	• Costs should be clearly negotiated before use.	• The tool has been used to collect production area data for coffee and rubber in Viet Nam.	• ESRI is a company with more than 40% of the global GIS market. The ArcGIS user community is therefore very large, with extensive field information and evidence on quality.	• Users can deploy the tool on a server in Viet Nam instead of the default Google Cloud. However, this option requires substantial costs and software-managem ent and design capacity because the tool is built on the Google ecosystem. • Polygon coordinate collection is not yet optimal and requires GIS post-processing.	• The QGIS user community is large, continuously growing and global. Among the eight tools assessed here, its user base is second only to ArcGIS.	• Polygon coordinate collection is not yet optimal and requires GIS post-processing. • Large global community.

Source: Official technical documentation, App Store/Play Store and developer websites; updated May 2026

Note: Specific information on additional costs, technical support and developer security provisions should be verified directly with the provider before signing a contract.



5. Assessment results

First, all eight tools have potential for collecting production area data, with distinct strengths and limitations. Of the eight, Open Foris Ground, QField and KoboCollect offer the greatest potential where local financial and human resources for production area data collection are limited and the EUDR implementation deadline is approaching. These tools are currently free to use, open source, relatively easy to deploy at household and village levels, and can be used simultaneously by many data collectors. With the participation of local officials, they can support rapid and reasonably accurate development of production area datasets that reflect field realities - first for EUDR compliance and, in the longer term, as a foundation for broader production area management.

Second, none of the eight tools fully meets Vietnamese legal requirements for data safety when deployed using its current default configuration, in the following respects:

- Under Decree No. 13/2023/ND-CP⁷, transfers of personal data abroad require a clear legal basis and a prior impact assessment. None of the eight tools currently meets this requirement.
- None of the tools has been assessed (or has publicly available information showing assessment) and registered for cybersecurity and network security under Vietnamese regulations. This is mandatory under the 2018 Law on Cybersecurity and Decree No. 53/2022/ND-CP⁸ for information systems processing user data at scale, particularly when applications are deployed by or serve local state agencies.
- Production area data include personal data (for example household information, legal documents and geolocation of production plots linked to individuals) and land data regulated by land law. None of the eight tools has a policy - or publicly available information - on access control, data-deletion procedures or contingency mechanisms disclosed transparently, although these are requirements under Decree No. 13/2023/ND-CP.
- These are production area data collection tools, not traceability systems. After collection, data therefore need to be cleaned, standardized, stored and consolidated into a traceability system that meets cybersecurity and information-security requirements and completes the required impact assessment before information is transferred abroad under laws governing information and databases.

Third, costs vary among tools. Deployment and management costs - including system operation and maintenance - range from completely free tools to fully commercial paid solutions. For paid tools, in addition to licence fees, users should account for infrastructure costs (such as private server infrastructure) and other

⁷ Government Decree No. 13/2023/ND-CP dated 17 April 2023 on Personal Data Protection.

⁸ Government Decree No. 53/2022/ND-CP dated 15 August 2022 detailing a number of articles of the Law on Cybersecurity.



related costs such as server maintenance, operating staff and training. These costs vary depending on the specific approach used to maintain and manage the tool.

Fourth, tools developed and currently used in Viet Nam - including GeoCollect, FRMS Mobile, vTools Survey and Agritrack 2A - lack clear information on data security and maintenance. Some, such as FRMS Mobile and Agritrack 2A, also have limited flexibility for form customization. Tools developed by foreign organizations and software providers - ArcGIS Survey123, Open Foris Ground, QField and KoboCollect - offer stronger functionality and greater flexibility in form design and management. However, under default settings their data are stored on servers overseas and therefore do not meet current Vietnamese data-safety requirements (see the second finding above).

Finally, a small number of domestic and international tools, such as QField and KoboCollect, allow users to operate their own data-storage servers independently of the developer. These options nevertheless have limitations because professional IT staff are needed to deploy, operate and maintain server infrastructure or rented cloud services. Some other tools - GeoCollect, vTools Survey and ArcGIS Survey - require licence fees. QField and KoboToolbox are open-source⁹ and allow users to store data on their own servers while maintaining a user-friendly design. Both, however, require staff with expertise in information technology and geographic information systems (GIS) to create survey forms, manage survey data and user accounts, and maintain and operate servers.

6. Proposed solutions

The EUDR will apply from 30 December 2026, and the European Commission has stated that there will be no further postponement. Given this deadline, collecting production area data is urgent for businesses and farmers seeking to maintain access to the EU market. At the same time, it is an opportunity for state agencies from central to local levels to build a systematic and sustainable production area data platform. Based on the assessment of eight data collection tools commonly used in Viet Nam, the expert team proposes the following recommendations for selecting tools for different user groups:

1. For local authorities and businesses with sufficient financial, infrastructure and human resources:

They can proactively build and develop their own production area data collection toolkit, tailored to their management and traceability needs. This approach allows systems and technical solutions to be designed to meet data-collection requirements, undergo information-security and safety assessments under Vietnamese law, and address the specific management needs of each locality or business. Alternatively, localities and businesses may consider contracting the developers of the tools assessed above to customize the tool design for their own context. Before deciding whether to develop a new solution or use a paid data-collection tool and

⁹ Open-source software (OSS) is software whose source code is publicly available and may be used, modified and distributed by anyone. Users may not only use the software but also inspect, change and improve its source code to suit their needs.



an existing paid production area database management system, key factors to consider include:

- A data-storage arrangement using infrastructure located in Viet Nam, or a data-protection agreement compliant with Decree No. 13/2023/ND-CP;
- A data-classification mechanism clearly identifying which data may be shared outside the system and which may not, and which data require internal controls and which do not;
- Require the tool provider to provide evidence of security policies, access-control mechanisms and incident-response procedures before a production area data collection tool/software is selected and deployed.

2. For local authorities and businesses with limited resources:

For localities and businesses unable to invest in a new toolkit or commercial solutions, a phased approach is recommended, consisting of two stages:

Immediate stage: Use free and open-source tools, including those assessed in this report, to collect basic production area information such as plot geolocation, area, planting year and commodity-specific product information (coffee, rubber, timber, etc.). This is the first step toward building an initial database of production areas for the locality or business. Once collected, data should be transferred to the locality's or business's server, standardized and integrated with available information such as cadastral data, forest-land status, land-use status and legal status. This integration supports EUDR risk assessment, particularly for deforestation and legality, and helps identify priority production areas (green areas) for inclusion in the production area database management system or commodity traceability system. Data should not all be concentrated at a single point, in order to reduce the risk of information or data loss.

Next stage: Once sufficient resources are available, develop a complete commodity database system, including a production area database with all information needed for management and EUDR compliance, data collection tools, management systems and traceability. The system may be developed in-house or use open-source tools and solutions, but it must fully meet Vietnamese legal requirements for cybersecurity and information security as well as EUDR requirements.

3. For product and commodity traceability systems:

To meet EUDR requirements, businesses need to collect production area data while building digital data infrastructure across the entire supply chain, combining spatial-data management with long-term data controls to manage deforestation risk. Businesses should also ensure transparency at every stage of the supply chain.

To do so, businesses should prioritize solutions built on open-source architectures that can be integrated and expanded over time, reducing dependence on closed platforms or individual vendors. Data should also be standardized from the outset, including point coordinates or production-area polygons and household information, alongside systematic investment in internal data-governance capacity.



7. Conclusion

The analysis shows that each of the eight tools has different advantages and limitations in its potential to collect production area data that meet EUDR requirements. A key finding is that none of the eight tools assessed fully satisfies all eight assessment criteria.

Given limited resources and the time pressure associated with EUDR implementation, using one or more of these tools to urgently collect mandatory production area data is, at least in the short term, an appropriate solution. Where resources are constrained, data collection needs to be rapid, accurate and suitable for simultaneous deployment by many users. Users should therefore consider open-source tools that are free, benefit from community review, allow source-code modification and customization, are easy to use, and can synchronize data into a centralized database.

Depending on their objectives and available resources, users may also combine open-source tools from international developers with domestically developed tools, or use tools whose data servers are located in Viet Nam, to build an appropriate future deployment pathway - particularly one that meets Vietnamese legal requirements on data security and personal-data protection.

In addition to the eight tools analyzed above, many other solutions and tools may be capable of meeting production area data collection requirements but are not covered in this report. Management agencies or businesses may also invest in developing their own tools to optimize them for specific needs. This requires a comprehensive and careful assessment of available resources, investment and operating-staff costs, the time required to complete and field-deploy the tool, information-security risks, system stability, and the ability to maintain the system sustainably over the long term.



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