# Data Collection Instruments

## Table 1. Semi-Structured Interview Questions

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| **No** | **Interview Question** | **Purpose** |
| 1 | To what extent can you trace the origin of the palm oil products you manage? | Assess supply chain visibility from upstream to downstream. |
| 2 | Are there any barriers to sharing data with other stakeholders in the supply chain? | Identify data collaboration challenges. |
| 3 | How do you ensure that data from other parties is accurate and trustworthy? | Identify data validation methods. |
| 4 | What is the biggest challenge in managing your supply chain? | Reveal key structural issues. |
| 5 | To what extent do you use technology to improve operational efficiency? | Assess digital readiness. |
| 6 | Have you ever used a digital system for certification or tracking? | Explore previous experience. |
| 7 | What are your recommendations to improve transparency and sustainability in the supply chain? | Capture practical suggestions from stakeholders. |
| 8 | How is data collected and recorded in the field (e.g., at farms or mills)? | Understand real-world data entry processes. |
| 9 | Have you or your organization experienced a certification audit (RSPO, ISPO)? What was your experience? | Identify gaps in audit processes. |
| 10 | Do you think current systems support compliance with export regulations? | Measure effectiveness of existing systems. |
| 11 | To what extent do you understand the EUDR regulation and its impact on your operations? | Assess regulatory literacy and readiness. |
| 12 | Is data tracking conducted manually, semi-digitally, or fully automated? | Identify current level of automation. |
| 13 | If a blockchain-based tracking system is implemented, what benefits do you foresee? | Assess perceptions of new technology. |
| 14 | What are your main concerns about using blockchain in supply chain tracking? | Identify perceived risks or resistance. |
| 15 | In your opinion, who should have access to tracking data? | Explore expectations of data access and transparency. |
| 16 | Do smallholder farmers around you have the capacity to use digital systems? | Evaluate readiness of upstream actors. |
| 17 | What kind of training or technical support do you expect for adopting a new traceability system? | Identify onboarding and capacity-building needs. |
| 18 | What are the main success factors for implementing this traceability system? | Reveal key success determinants. |
| 19 | How important is system integration with official certifications like RSPO/ISPO? | Evaluate the need for integrated systems. |
| 20 | If the system is successfully implemented, what significant impacts do you expect? | Measure expectations of systemic change. |

## Table 2. Stakeholder Evaluation Statements for Traceability System

Rating scale: 1 (Strongly Disagree) to 5 (Strongly Agree)

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| **No** | **Evaluation Statement** |
| 1 | The transaction data I entered cannot be altered by others once it is recorded in the system. |
| 2 | I am confident that all information in the system is permanent and tamper-proof. |
| 3 | The system only allows access based on my role in the supply chain (e.g., farmer, mill, exporter). |
| 4 | Sensitive information (e.g., farm location, production volume) is visible only to authorized parties. |
| 5 | I feel secure using the system because user access is clearly defined and restricted. |
| 6 | This system supports compliance with regulations such as RSPO, ISPO, and EUDR. |
| 7 | The system simplifies the process of submitting certification and export documents. |
| 8 | I believe this system can accelerate audit processes compared to manual methods. |
| 9 | Supply chain information can be traced openly and in real-time through the system. |
| 10 | Consumers or business partners can view certification status via QR Code or similar features. |
| 11 | I can verify product origin and distribution path directly through the system interface. |
| 12 | The system interface is user-friendly and requires no complex technical training. |
| 13 | The data input and tracking process is smooth and easy to follow. |
| 14 | The system responds quickly without errors during use. |
| 15 | Overall, I am satisfied and willing to use this system again in the future. |