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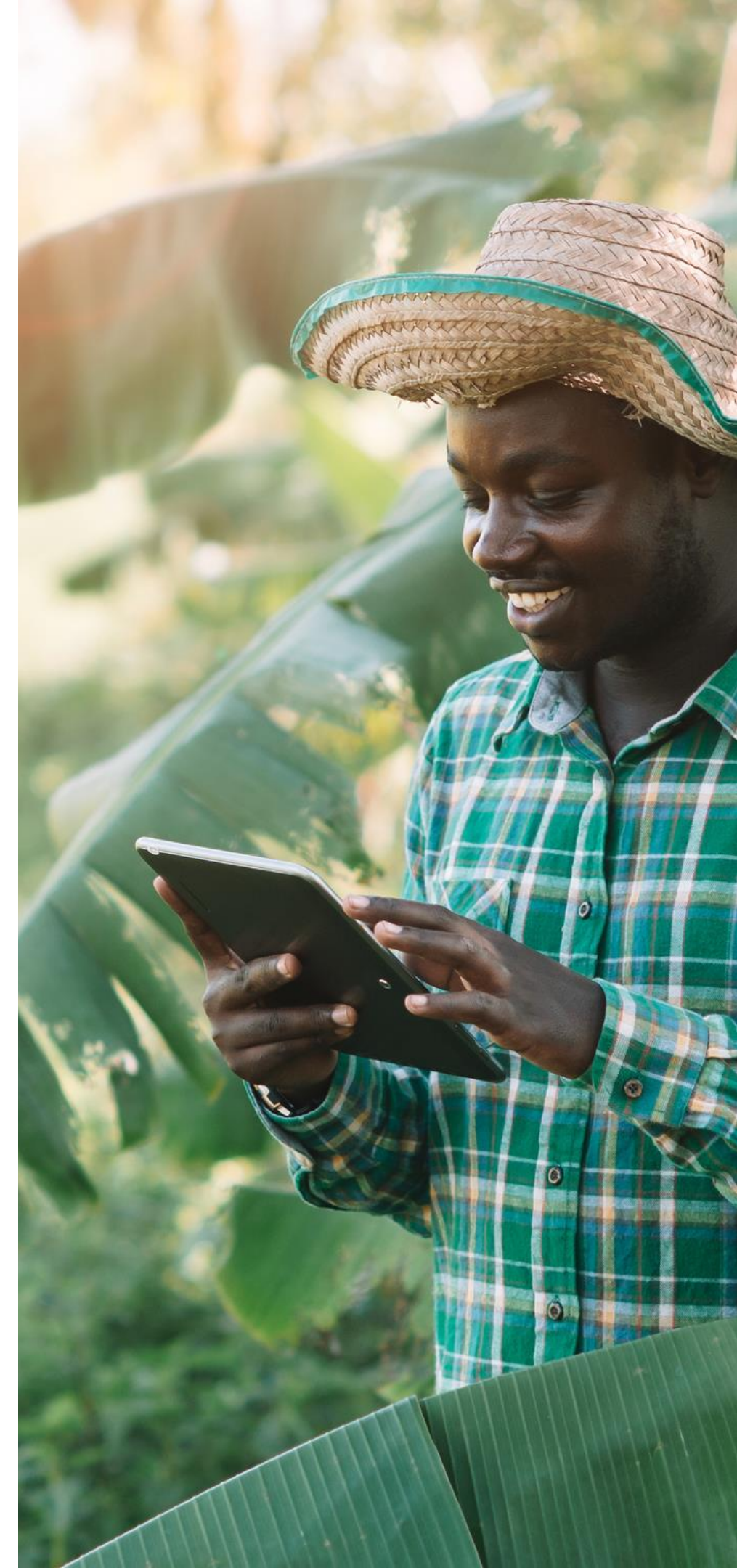
Maastricht University

# Farmer-centric Data Governance

INA Lunchbreak



**FRIDAY, 7<sup>th</sup> JUNE**  
SIDI AMAR



# Agenda

- — **1. Introduction**
- — **2. Smallholder Farmer, Data Collection & Ownership**
- — **3. Farmer-centric Data Governance Principles**
- — **3. The Checklist**



# Introduction

## What is FSD?

**Fair & Smart Data (FSD) is an action-oriented transdisciplinary research programme.**

Founded by Maastricht University's School of Business and Economics, Rabobank's Acorn and Solidaridad Network, FSD wants to contribute to the transition to more equitable, inclusive, and sustainable global agricultural value networks.

This transition will rely on using data and digital technology in a smart and fair way, developing sustainable and innovative business models, and ensuring inclusive governance of global supply chains.



### Academic Knowledge

- The most international university in the Netherlands
- Leading (executive) sustainability programmes
- Multidisciplinary approach to research and education



**Rabobank**

### Unique Carbon Market Initiatives

- Second largest Dutch Bank
- Developed the Acorn project, selling carbon removal units
- Financial expertise in Agricultural projects

## **Solidaridad**

### Field Experience in Commodities

- Global NGO striving towards inclusive, sustainable agriculture
- Leading the emerging Fair Data movement
- Working with 1.4+ million smallholder farmers



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# Our Mission

**FSD puts smallholder **farmers at the centre of sustainable** development and wants to improve their living conditions and livelihood assets while pursuing sustainability for all.**

## Farmer-centric Data Governance



Ensuring that farmers have control and ownership of their data, and a good understanding of its use.

## Sustainable Business Models



Enabling new income revenue streams for farmers through sustainable farming and land-use practices (e.g., climate-smart agriculture and agroforestry).

## Better Positioning in Global Supply Chains



Empowering farmers to get a fairer share of value in the supply chain and increase this value through the potential use of their data.



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# Smallholder Farmers

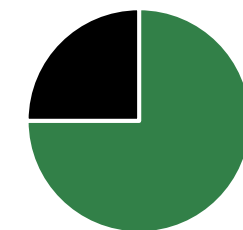
“Smallholders are a **vulnerable group of people cultivating small fields** of land to feed their families and earn an income, mostly living in rural areas of countries in the Global South with limited access to financial resources and essential infrastructures.”

**84%**

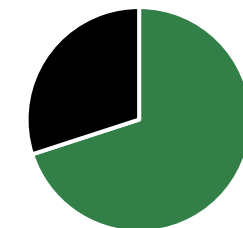
of world's 570 million farms  
are smallholdings  
( $< 2$  ha in size)

**1/3**

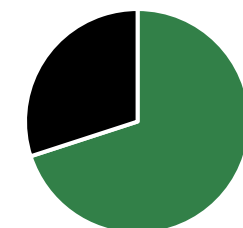
of world's food is produced  
by smallholder farmers



**75% Cocoa**



**70% Coffee**



**70% Tea**



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# 13x increase in digital agricultural services in 10 years<sup>\*</sup>

High potential to combine data-driven analytics and digital technologies to create new markets in agri-food

## Economic efficiency & Resilience

Access to multiple markets, lower costs, buyer-seller matching, resilience and improved quality control

## Equity

Inclusion of smallholders and other marginalised populations

## Environmental sustainability

Improved resource management, reducing food waste, promoting environmentally friendly practices (CSA)

\*in LMIC from 2009 to 2019 (GSMA, 2020)



# Reasons for Smallholder Data Collection



Regulatory compliance

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Financial services

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Scientific research

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Supply chain traceability & efficiency

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Developmental programmes & interventions

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Marketing and branding

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Increasing Production

---



Sustainability Reporting

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Ecosystem Services

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Certification



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# Issues of Smallholder Farmer Data Governance

- ⚠ **Lack of inter-governmental data governance frameworks**
- ⚠ **Poor implementation of data regulations in the Global South**
- ⚠ **Asymmetry of power in the data ecosystem**
- ⚠ **Lack of transparency** on issues such as data ownership, data rights, data privacy, and data security
- ⚠ **Complex contracts** and licensing agreements leave smallholder farmers with limited negotiating power
- ⚠ **Lack of access** to digital tools and infrastructure
- ⚠ **Lack of understanding** and knowledge about the use and value of data on the farmers' side



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# Issues of Data Ownership

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## Legal Uncertainty

Data ownership is legally unclear, with debates on whether data is like intellectual property or res nullius (ownerless until claimed).

## GDPR Rights

The GDPR defines personal data and outlines rights for data subjects but does not fully define data ownership.

## Time Exchange of Value

Data ownership should be viewed as an exchange based on informed consent, understanding, mutual benefit, and assured privacy and security, allowing farmers to control and opt out of data use.



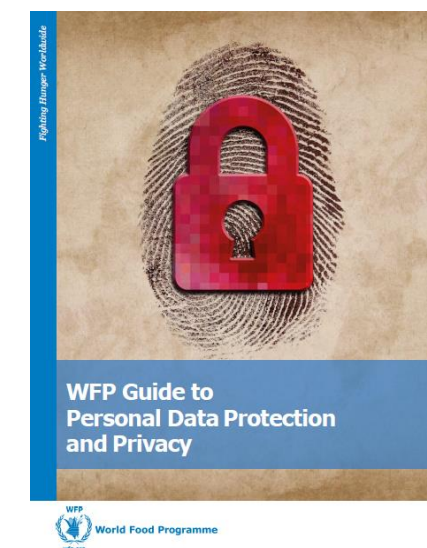
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# Good News!

Many organisations are coming up with initiatives and frameworks for farmer-centric data governance

New EU regulations, such as the Corporate Sustainability Reporting Directive (EU CSRD), are prompting new discussions.

There is a business case for farmer-centric data governance. Data integration and sharing can cut data collection costs, ensure reliability, and allow the creation of new applications, products, and services.



# Farmer-centric Data Governance Principles

Smallholder-oriented data governance requires the more powerful and well-resourced stakeholders to commit to fair treatment and compensation of smallholder farmers.



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# The Process

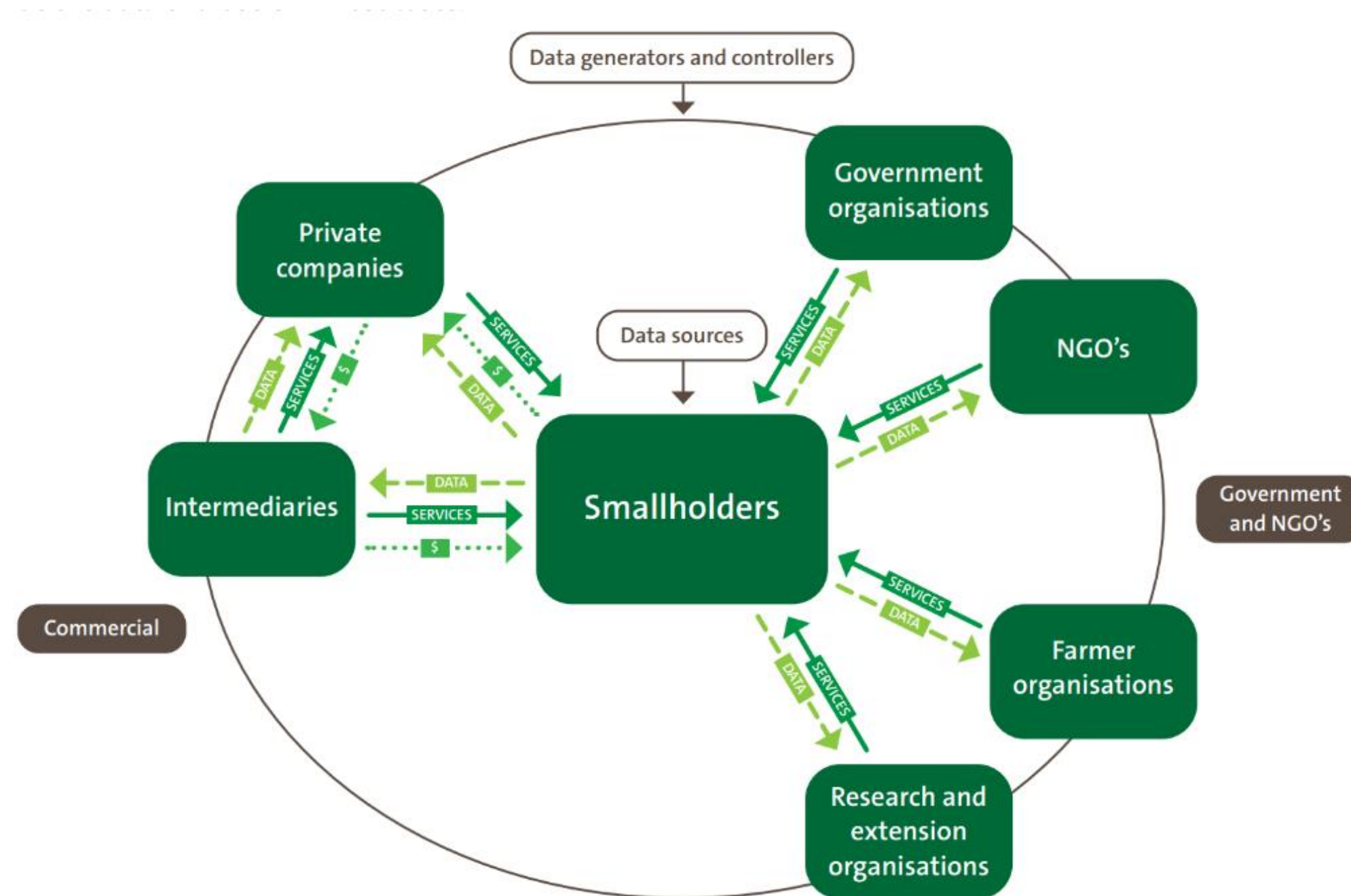
**Key criteria** when developing the principles of smallholder-oriented data governance:

- Account for the thematic areas identified in the SDE, such as digital sovereignty, informed consent, fairness, and resource asymmetry.
- Practical and relevant for all the stakeholders in the SDE.
- Consistent with the associated SDGs (SDG 1, 2, 8, 10)
- Address the four essential concepts associated with fair and responsible data governance:  
**Accountability – Transparency – Empowerment - Harm avoidance**



# Smallholder Farmer Data Ecosystem

The Farmer is at the centre of the data ecosystem, which underlines the importance of developing farmer-centric data governance principles.



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## Sustainable Benefit Sharing

- All stakeholders should receive consistent benefits when adhering to the data governance system.
- An information feedback loop should be established for the smallholder farmers to benefit from their data-sharing.

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## Ethical Responsibility & Accountability

- In a fair smallholder-oriented data governance system, the powerful and well-resourced stakeholders should recognise that they are subject to ethical responsibility and accountability.
- Data collection and processing should be legitimate and necessary.
- Well-resourced stakeholders in controlling positions should account for the socioeconomic conditions under which they are operating.

2

1

These principles should not be interpreted as fixed policies or commandments because their formulations are deliberately broad. Instead, different stakeholders in the SDE should be able to use these principles when designing smallholder-oriented data-value policies. In addition, the stated enabling conditions can be used as a practical tool to create a check-and-balance system in smallholder-oriented data governance. The principles can also be helpful for actors who are not directly involved in data-value exchanges with smallholders, such as consumers and journalists.

For the full report,  
visit [maastrichtuniversity.nl/fsd](https://maastrichtuniversity.nl/fsd)



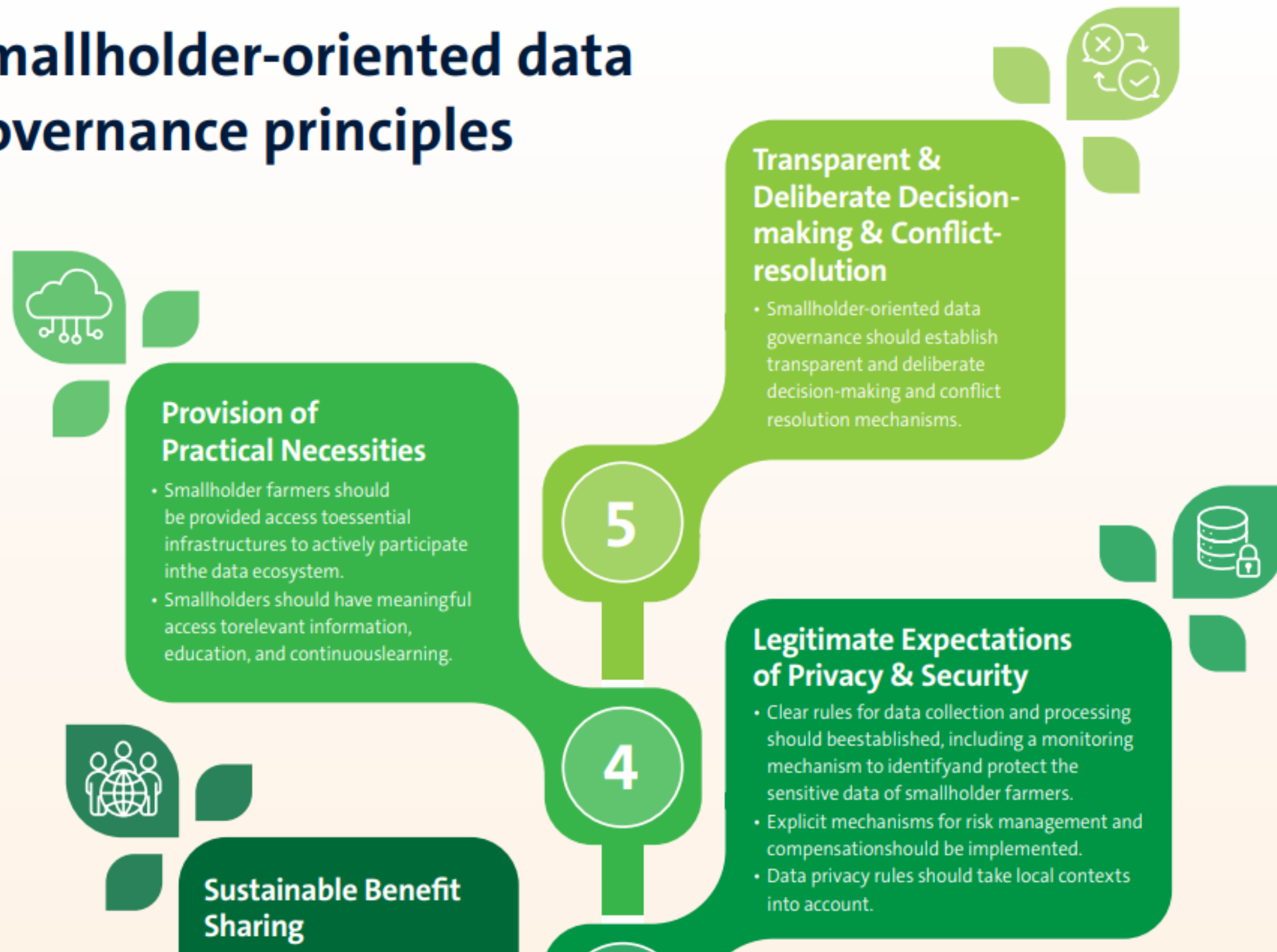
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# Farmer-centric Data Governance Principles

# Farmer-centric Data Governance Principles

## Smallholder-oriented data governance principles



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# The Roadmap

## 1. Developing the Theoretical Principles

FSD data governance principles were developed based on scientific and grey literature and existing data governance frameworks.

## 3. Disseminating the Principles

A detailed data governance report has been published. News items and social media posts have been written, and interviews have been conducted to promote the report. Online webinars were organised to share principles among the researchers and practitioners.

## 5. Developing a certification scheme or an industry standard

The overarching goal of this effort is to create a certification scheme or an industry standard around the principles of farmer-centric data governance. This will require consensus, trial adoption, partnerships and funding

## 2. Expert Review of Principles

The principles report was reviewed by more than ten experts from academia, industry, and the non-profit sector.

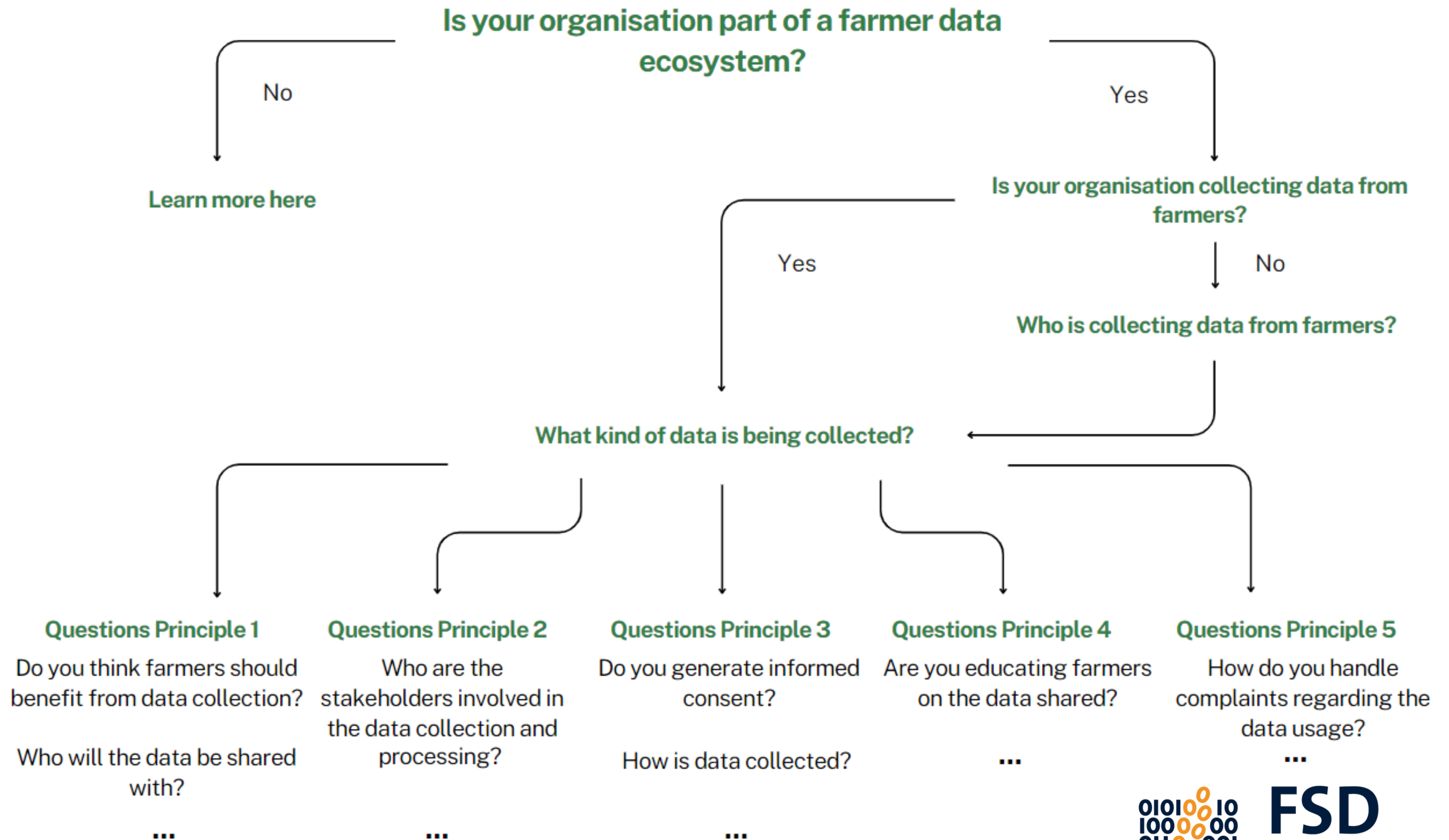
## 4. Creating an Online Checklist

FSD is currently developing a free-access online tool for organisations to check if their handling of farmers' data adheres to the principles of inclusivity and fairness in data governance, a.k.a farmer-centric.



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# The Checklist



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# The Checklist

## Welcome to the **Farmer-centric Data Governance Principles (FDGP) Checklist**



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### Description of the Checklist

This checklist is a tool for preliminary assessment of the data governance framework adopted in your organisation.

- ☒ I understand and have accepted the [Terms and Conditions](#)

### Section 1: Overall Questions

1. Is your organisation part of a farmer data ecosystem?

- ☒ Yes  
☐ No

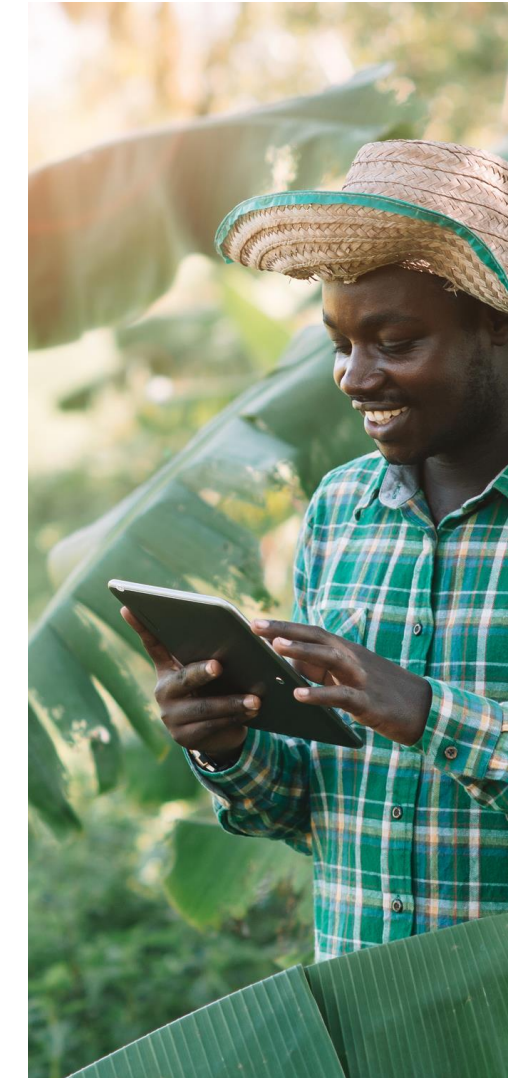
2. Is your organisation collecting smallholder farmer data?

- ☐ Yes  
☒ No

3. Do you have a data governance framework in place?

- ☐ Yes  
☐ No  
☒ Not sure

! Please clarify with your team/colleagues if a data governance framework exists within your organisation



← Back

Save Progress

Next Section →



# The Checklist

## Farmer-centric Data Governance Principles (FDGP) Checklist



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### Thank you for finishing the self-assessment!

Below you can find the scores of the self-assessment. Please read the information provided closely. If you have any questions and/or concerns, please feel free to contact us [here](#).

**Overall: 80 of 100**

#### Ethics and Accountability: Score 75 of 100

**Good job! But there is still room for improvement.**

Your answers show that your organisation is aware of the ethical aspects of data governance. Thus, the focus should now be on implementing the principle. Find a detailed overview and additional resources [here](#).

#### Sustainable Benefit Sharing: Score 95 of 100

**Excellent work!**

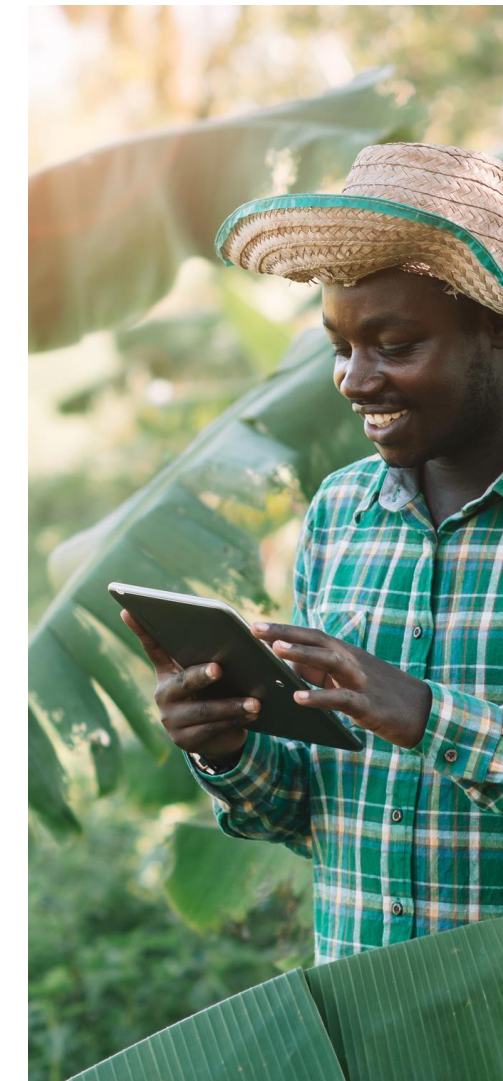
You seem to be very advanced in the second principle of sustainable benefit sharing. Feel free to share your insights, best practices, and expertise with others who struggle with adapting this principle in our [FDGP community](#).

To download the full report, click below:



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# THANK YOU

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Initiative für nachhaltige  
Agrarlieferketten

More information can be found here:

- [Smallholder-oriented Data Governance Principles](#)
- [Fair & Smart Data report](#)
- [Website](#)
- [LinkedIn page](#)