

**HOW CAN WE
COLLECTIVELY WORK
TOWARD IMPROVED
INFORMED CONSENT FOR
SMALLHOLDER
FARMERS?**

a.

Introduction to the Digital Agrifood Collective & its Goals

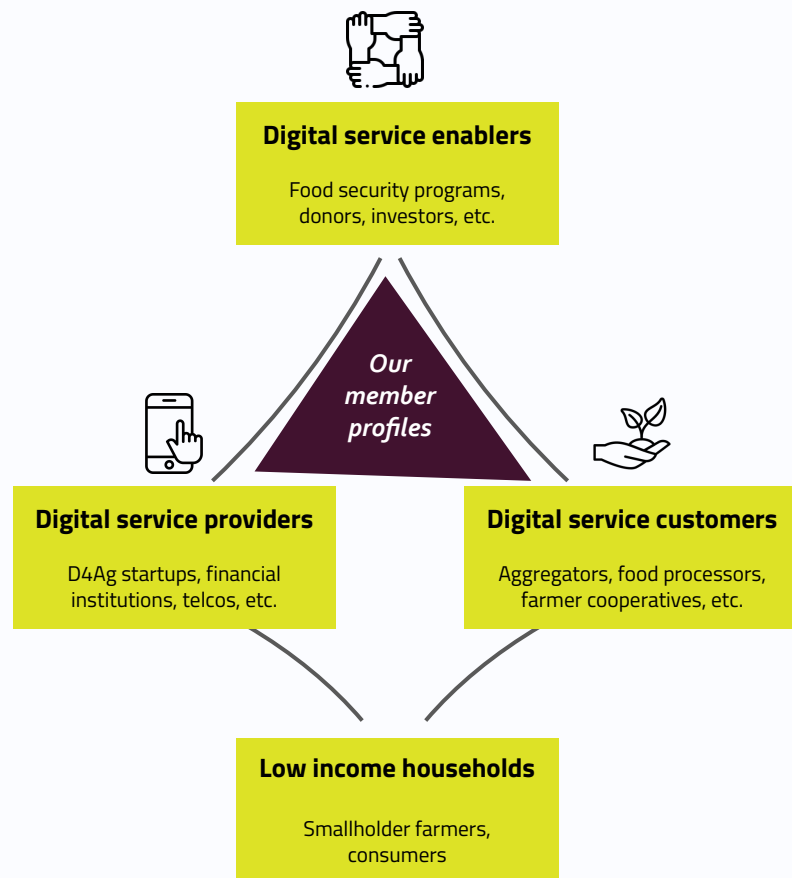
In this section we introduce you to the backdrop of the Digital Agrifood Collective (DAC), the membership profile and barriers to digitalisation we have previously focused on.

DIGITAL AGRIFOOD COLLECTIVE

Our mission

We are a collective of organisations that **exchange learnings and align strategies** with the purpose to collectively **accelerate an inclusive digital transformation** of the agrifood systems in Sub Saharan Africa and Southern Asia.

Since 2020, the DAC activities are coordinated by



Our activities to date

Topics that we take action on collectively through pledge-to-action sprints:

Digital inclusion (June 14th 2021)

Commercial viability (October 6th 2021)

Data governance and informed consent (October 2023)

User-centered design (not scheduled)

Demystifying overhyped technologies (not scheduled)

Local talent recruitment (not scheduled)

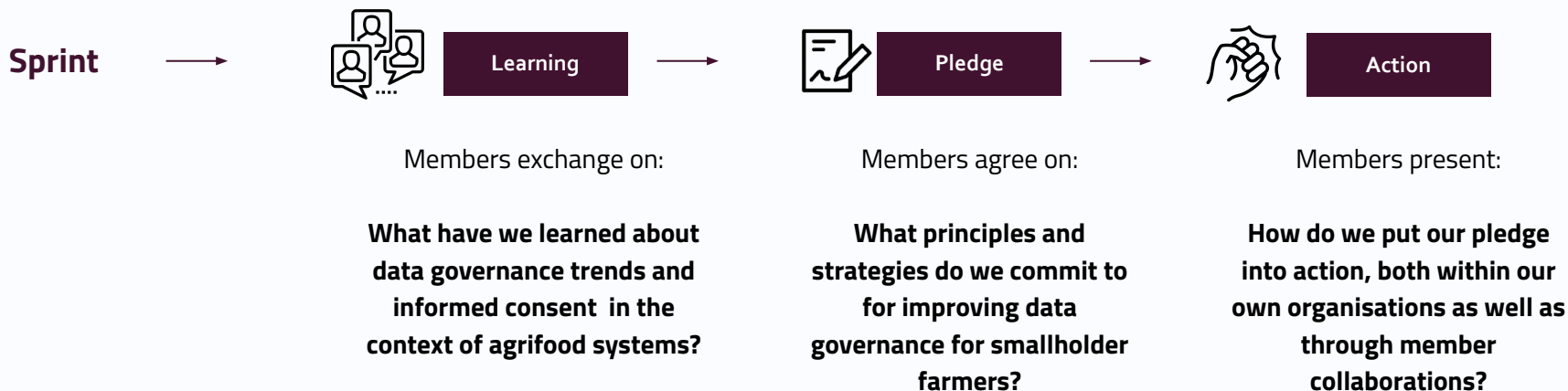
b.

About this Learning Publication

In this section we explain the structure of this publication, which covers the learnings, pledges and actions that we have explored as Digital Agrifood Collective in 2023.

How do we work?

Members join our 'pledge-to-action sprints' to collectively remove barriers for inclusive digital transformation of agrifood systems. Each sprint has three steps, facilitated by NFP and Bopinc. In this publication we share the outcomes of the sessions that were organized in 2023, on data governance and informed consent for smallholder farmers using digital agrifood services.



C.

Learnings about Data Governance & Informed Consent

In this section we share our research process and key learnings on
Data Governance and Informed Consent

Process

Through literature review and interviews we have identified some key challenges and opportunities of the DAC connected to data governance and informed consent

Literature review of current trends and strategies for data governance in the agrifood sector

- [Digitalisation of African Agriculture Report](#)
- [Exemplary features of digital tools for agroecology: A global review](#)
- [Farmer-Centric Data Governance: Towards A New Paradigm \(Bill and Melinda Gates Foundation\)](#)
- [Ethical and Legal Considerations in Smart Farming: A Farmer's Perspective](#)
- [OECD: Issues around data governance in the digital transformation of agriculture](#)
- [Does data mean power for smallholder farmers?](#)
- [SNV Digital Agriculture Strategy](#)
- [How true is the mantra that small-scale producers benefit from digitalisation?](#)
- [What does it mean? Shifting Power Through Data Governance](#)

Interviews with experts and DAC members

Digital service enablers:

- MercyCorps Agrifin
- 60Decibels
- SNV
- Solidaridad
- Netherlands Space Office
- Wageningen University Research
- Maastricht University FSD
- Cordaid
- FairFood
- IDH

Digital service providers:

- Yielder (Kenya)
- eProd (Kenya)

Data Governance: Why is it important?

“Digitalization is a true game changer if it is properly governed and it is not working in isolation”

Alessandra Zampieri
Director of Directorate for Sustainable Resources
EU Joint Research Centre

Digitalization is powerful tool with great potential but is not without its risks. For instance, there are challenges related to the equity and inclusiveness of digital tools. Additionally, once farmers have shared their data, they can be left susceptible to unscrupulous business practices or even violence if said data ends up in the wrong hands. *Effective data governance and data stewardship may mitigate these risks.*

With the increase of big data and digitalisation in smart farming, it is more essential than ever to focus on the *ethical aspects of data governance* (access, control, consent) and *equitable data governance models* that *prioritise farmer participation* while guarding against misuse.

In prioritising farmer participation, equitable data governance models may be a channel toward more data sharing.

Data Governance and Data Sharing

Data sharing is a key reason why data governance is important; data governance structures should not impede the value that data sharing can bring to farmers and customers.

Data sharing conversations highlight the necessity of collaboration between and amongst service providers and service enablers; no individual organization can provide all the services farmers need. To avoid overburdening farmers and to keep costs of data collection manageable, data sharing is needed. Additionally, the connection to data governance is crucial to consider in the context of data sharing given that (informed) [consent is the first step toward effective and widespread data sharing](#).

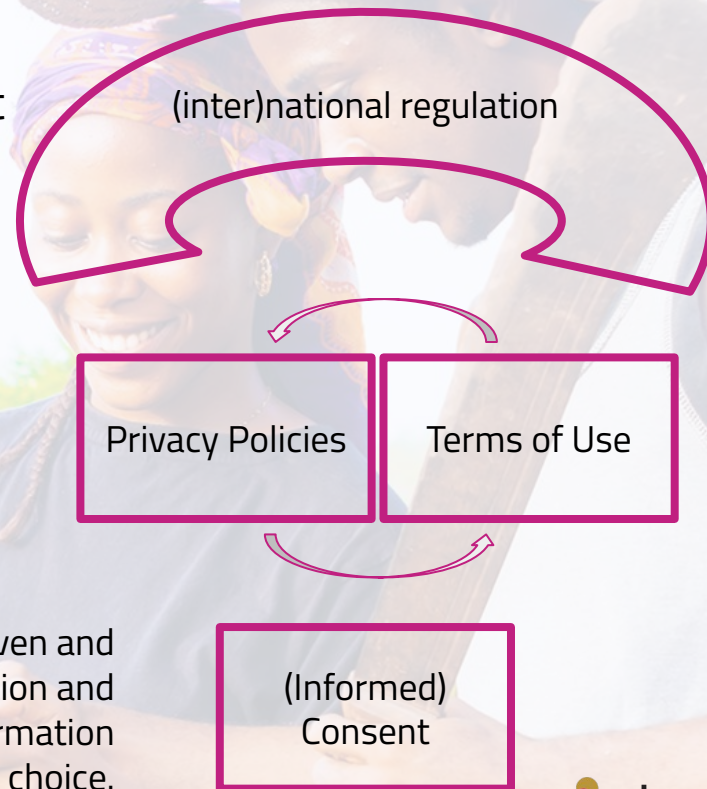
Parallel to the DAC, the [Digital Ecosystems Coalition for Empowering Smallholder Farmers](#) has been piloting (voluntary) *data sharing* and its potential to optimize *data collection, management, storage, and analysis* in agriculture.

Consent in Data Governance Context

Regulations at the national or international level set the legal requirements for data privacy policies and terms of use.

Terms of use in technology contracts tend to cover a broad range of matters such as: who 'owns' the data; who the data may be shared with; where the data may be stored (including in which country); indemnities and liabilities in relation to the data; ect. A privacy policy is an informative document that helps businesses comply with privacy laws by being transparent about they collect and use personal data.

Often required by regulations, consent should be freely given and informed, signifying agreement to an action related to data collection and use. The privacy policies and terms of use provide the information necessary for individuals to make an an properly informed choice.



Data Governance Trends in Agri-food Sector

In the context of the agri-food sector, we can see three emerging trends in data governance:

Firstly, there is a recognition that the data economy has extractive and inequitable tendencies. To combat this, in the place of specific regulations that govern the *fairness* of terms of use in agricultural data contracts, there is a focus on a *Farmer Centric Approach*, exemplified by a [report](#) from the Bill and Melinda Gates Foundation. The EU GDPR is also viewed as a gold standard and used as a blueprint for ensuring data is secure, private, accurate, available, and usable. Organizations like the FAO are building consent into their programming and encouraging others to do the same through their [FPIC e-learning modules](#).

Second, there is growing attention on *data democratization* in the form of *data trusts*, *commons*, *collectives*, *collaboratives* and *fiduciaries*. Such arrangements remove some data maintenance and storage burden from industry actors while increasing the efficiency of *traceability* systems.

Third, machine learning, AI, and blockchain are also impacting data governance. AI will be used to automate data governance processes on the blockchain, ensuring that data quality, access control, and compliance are continuously monitored and enforced.

Better / Fairer Data Governance: What Does it Mean?

Having contextualised and defined informed consent, it's now important to define better or fairer data governance. Our overarching assumption is that data governance infrastructure that builds trust will thus build participation.

According to literature, fairer data governance can be characterized as improved transparency, addressing imbalances of power and giving users the right to benefit from sharing their data. There is a shift away from speaking of "ownership" of data towards protection of access, control and treatment of data.

Data should be FAIR meaning findable, accessible, interpretable, and reusable. Good data governance also involves data minimization and recycling.

The following two slides further define fair data governance by identifying key principles that make up a fair data governance structure.

Principle	Explanation
Education	Enablers should: <ul style="list-style-type: none"> - Work to develop programmes which help to create educated customers/farmers who understand their rights Providers should: <ul style="list-style-type: none"> - Draft consent contracts using simple, easy to understand language
Ownership	Farmers: <ul style="list-style-type: none"> - Own information generated on their farming operations - Have the responsibility to agree upon data use and sharing with those who have an economic interest - Should ensure that only the data they own is include in their account with the provider
Collection, Access, and Control	Providers may only collect, access, and use fair data with affirmative and explicit consent of the farmer
Notice	Farmers must be notified that their data is being collected and about how the farm data will be disclosed and used
Transparency and Consistency	Providers should: <ul style="list-style-type: none"> - Notify farmers about the purposes for which they collect farm data - Provide contact information for inquiries or complaints - Inform famiers about the types of third parties to which data is disclosed and the choices the providers offers for limiting the data's use and disclosure - Be consistent and transparent

Principle	Explanation
Choice	Providers should: <ul style="list-style-type: none"> - Explain the effects and abilities of farmer's decisions to opt in, opt out or disable the availability of services - Make clear what services and features may or may not be enabled when they make certain choices
Portability	Farmers should be able to retrieve their data for storage or use in other systems, with the exception of the data that has been made anonymous or aggregated and is no longer specifically identifiable. Non-anonymized or non-aggregated data should be easy for farmers to receive their data back at their discretion
Terms and Definitions	Providers should clearly explain the following definitions in a consistent manner in all of their respective agreements: (1) farm data; (2) third party; (3) partner; (4) business partner; (5) ATP partners; (6) affiliate; (7) data account holder; (8) original customer data
Disclosure, Use and Sale Limitation:	Providers will not sell and/or disclose non-aggregated farm data to a third party without first securing a legally binding commitment to be bound by the same terms and conditions as the provider has with the farmer.
Data retention and availability	Providers should: <ul style="list-style-type: none"> - Notify farmers about the purposes for which they collect farm data - Provide contact information for inquiries or complaints - Inform farmers about the types of third parties to which data is disclosed and the choices the providers offers for limiting the data's use and disclosure - Be consistent and transparent

Data Governance Initiatives in the Agri-food Sector

We came across several initiatives that aimed to define, build awareness and coherence around the principles underpinning data governance and informed consent:

- The Global Open Data for Agriculture and Nutrition ([GODAN](#)) initiative
- USAID + Bill and Melinda Gates Foundation: [Data Governance Journey Map](#)
- OpenTEAM: [Ag Data Glossary](#), [Ag Data Oath of Care](#), [Bill of Rights](#)
- Maastricht University: [Fair and Smart Data \(FSD\)](#)
- NFF: [Australian Farm Data Code](#)
- OpenDataWatch: [The Open Data Handbook](#)
- CGSpace: [A Repository of Agricultural Research Outputs](#)
- SNV: [Climate-Smart Family Farming Project \(AFCIPRA\)](#)
- EWS KT: [Data Dashboard](#)
- FOA: [E-learning on Free, Prior, and Informed Consent](#)

d.

Reflections, Lessons Learned, and Outputs from Workshops

In this section, we present our learning and reflections from DAC members during the two workshops that were held.

Data Governance: Importance to DAC Members

Based on conversations with DAC members, it became clear that *data sharing* is a strong ambition given its potential to positively impact the agri-food sector. *Good governance* was seen as a necessary step to achieving more wide spread data sharing. Several challenges for implementing good data governance structures were also discussed. These include:

1. Lack of awareness among farmers; *what is consent and why give it?*
2. Balancing ethics with costs and commercial viability; *the business case for consent*
3. Lack of regulations and clarity on who is responsible as a result of polycentric governance; *how to navigate when working across countries?*
4. Many initiatives; *how to organise convergence to prevent double work?*
5. Different services require different data and thus different regulation

DAC User Group	Needs <i>We need consent to cover our legal bases, and need to get this in a cost effective way</i>
<p>Service Providers <i>with direct access to farmers</i></p> <p>Service Providers <i>with indirect access to farmers</i></p>	<p>We have established a degree of trust with farmers so can easily collect consent from them regularly using SMS or other digital tools. We need a future proof way to keep farmers informed and consenting.</p> <p>We need a cost effective way to ensure that farmers are providing informed consent. We need a predictable regulatory environment so that we do not have to keep asking for consent.</p>
<p>Service Enablers <i>with direct access to farmers</i></p> <p>Service Enablers <i>with indirect access to farmers</i></p>	<p>Given our contact with farmers we can provide educational services around informed consent and data stewardship. We need tools to help educate farmers. As donors are increasingly asking for good data governance, we need tools to help us get informed consent.</p> <p>We need to make sure our partners are getting informed consent from farmers.</p>

Key Reflections from Kick-Off Session

- Data governance - and informed consent specifically - is an issue of concern to the broader DAC community in line with the preparatory conversations.
- Generally DAC members validated the needs of different DAC user groups as identified, Additional needs DAC may want to take into account are:
 - Anonymization of personal farmer data to enable data sharing while honouring informed consent;
 - Collaborative approaches to data governance both with governments and other service providers/enablers
 - A standardized approach to collecting informed consent.
- DAC members discussed the 10 key principles for data governance, collected from current good practices. Key questions and observations that emerged, included:
 - Is there a hierarchy in the principles: which should DAC members take as a priority?
 - How do we make such principles easy to understand for farmers?
 - Data governance is increasingly important when projects are being scaled up.

Co-creating a Training on Informed Consent

Taking into account the needs addressed in the Kick -Off session, DAC members opted to build a Pilot Training for farmers on Informed Consent, spearheaded by [Yielder](#). During the second workshop lead by NFP, DAC members co-created the content to this training focusing on 5 key questions around consent:

- What data is collected?
- Why is data collected?
- What is done with the data?
- How is the data protected?
- How do farmers benefit from sharing their data?

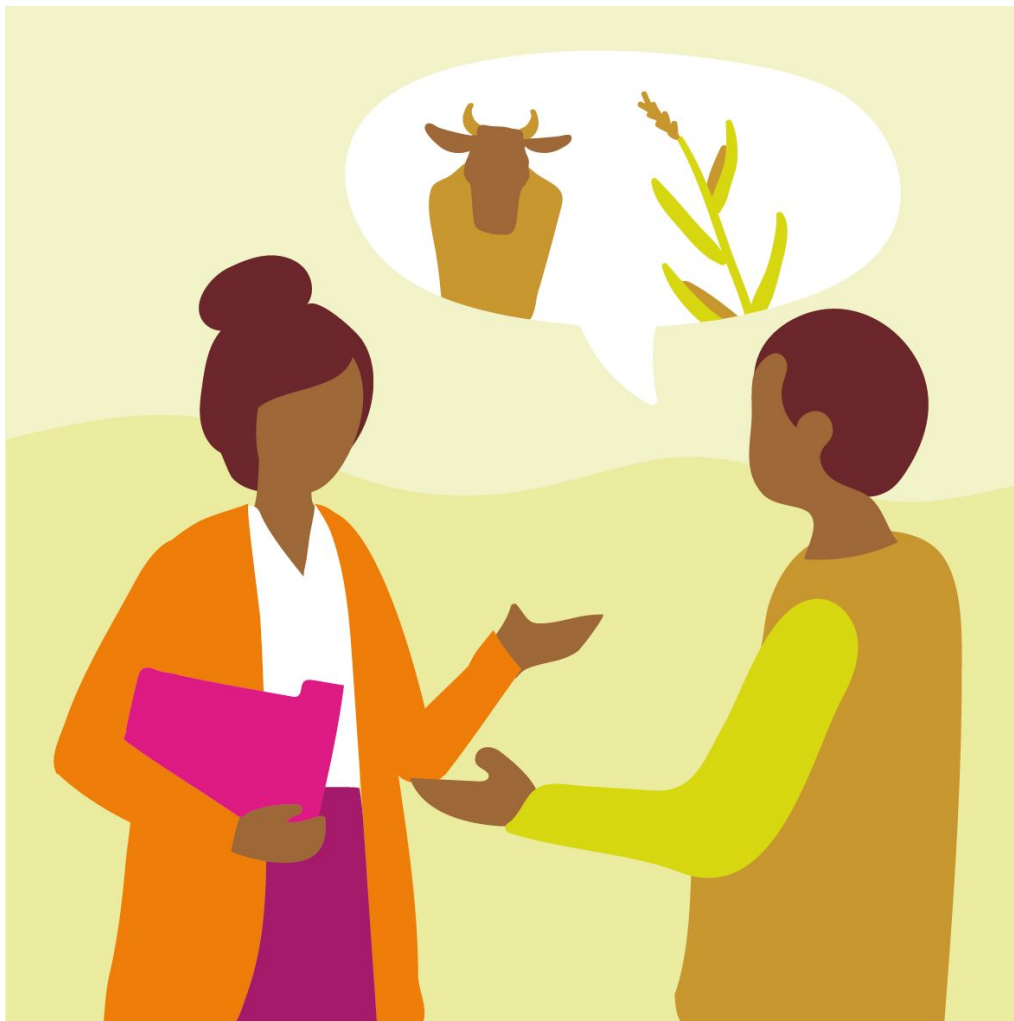
This training was successfully given to ~2,000 farmers in Kenya.



Farmers participating in Yielder's training

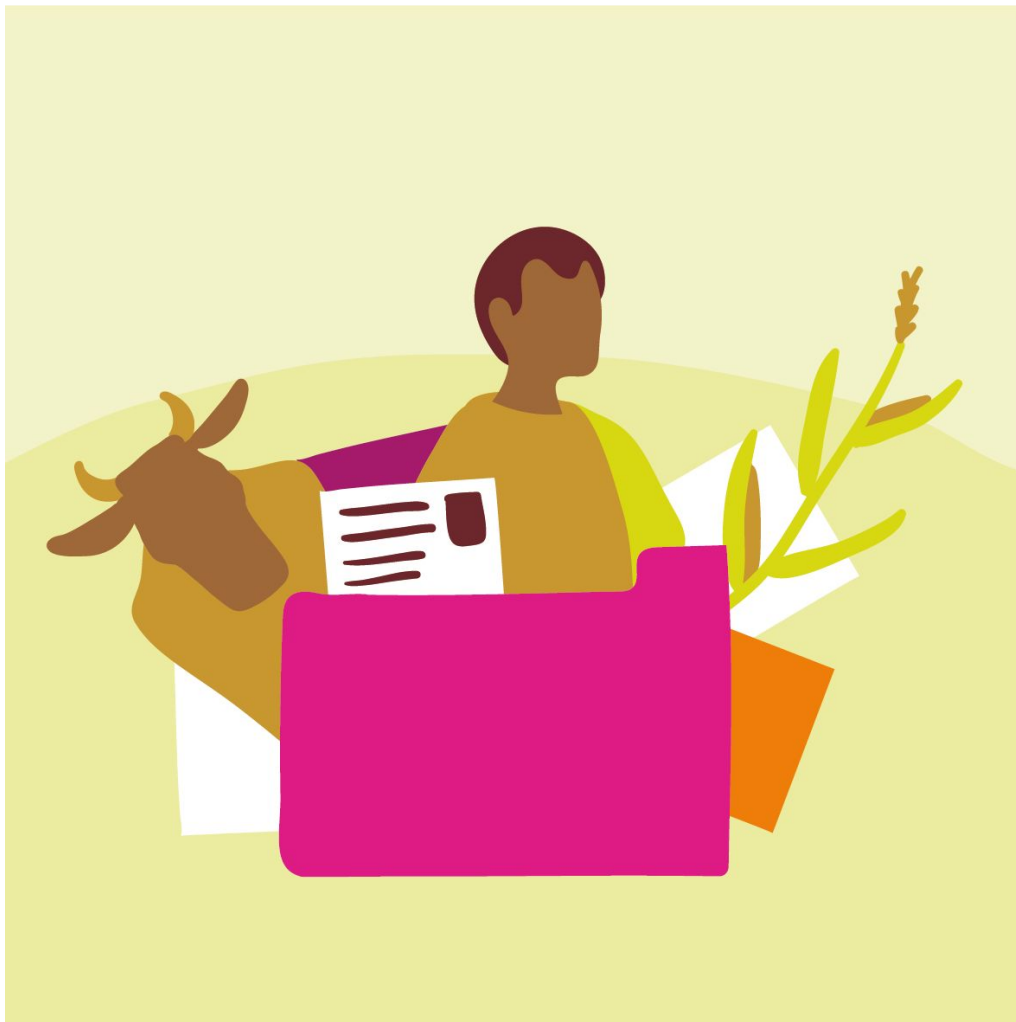
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**A Visual Guide to
Discussing Informed
Consent**



How is your data collected?

We collect your data through interviews, over the phone, or through an application. We collect your information for two main reasons: To make our services the best they can be for you, and to share information with supporters and clients on our projects and services.



What data is collected?

Name

Age

Gender

ID Number

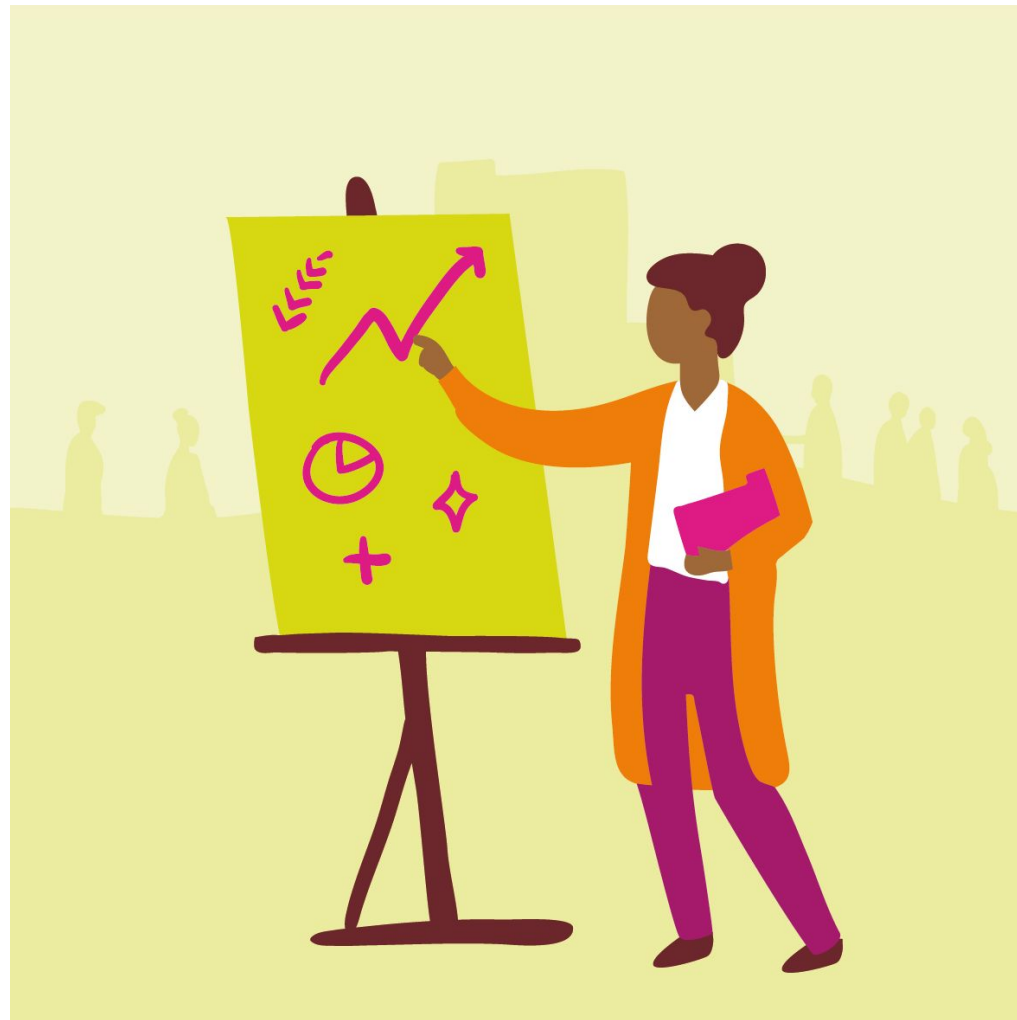
Phone Number

Location

Animal types

Crops types

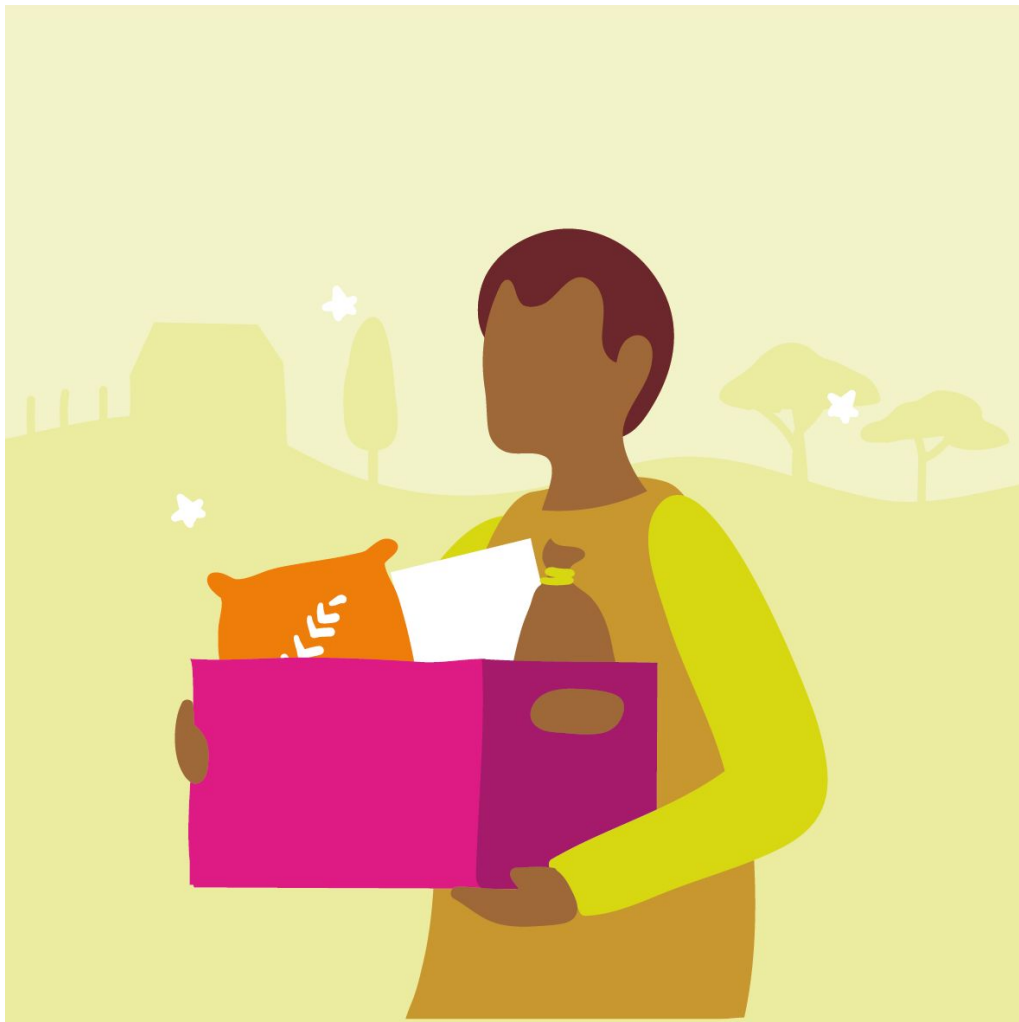
Size of farm



What do we do with your data?

We use your information for a few important things:

- Reporting on projects: We use the data to tell a story about the projects we're working on. Don't worry, we remove any personal details so it's anonymous.
- Staying in touch: After we've provided a service, we might get in touch to see how things are going or offer you something else. Your data helps us know how to best help you.
- Growing and helping more people: The information also helps us expand our services so we can reach more people.



How do you benefit from sharing your data?

When you share your data, you get to use our services. Depending on the organization, you might also qualify for discounts on fertilizers or seeds, and in some cases, access to loans.



How is your data protected?

We protect your data by keeping backups in different parts of the world. Also any new partner who needs access to the data first must get approval from existing partners through a voting process.

f.

**Ambition and way
forward**

Towards a Business Case for Informed Consent

Following the training, in partnership with Yelder, an *SMS survey* will be sent to farmers in 2024. Farmers who have received the training as well as farmers who have not received the training will take part in the survey. The aim is to discern *if educating farmers on consent will make them more or less likely to share their data*, to potentially start building a *business case for informed consent*.