

FARMER-CENTRIC DATA GOVERNANCE: A NEW PARADIGM FOR LMICS

AN INVITATION TO ADVANCE FARMER-CENTRIC DATA GOVERNANCE

Why is this important? While much agricultural data is generated by farmers, it is generally gathered by others. Farmers rely on external resources, like weather data, and proprietary tools that provide specific advisories (inferred from farmer data). Farmers are increasingly losing control over their data and the benefits of it. Meanwhile, other dangers exist with intermediation, opaque value chains and market mechanisms, and when infrastructures cease to be neutral. For farmers, the increase of data collection, storage, and use by third parties is of great concern in regards to ownership and governance, insufficient regulatory guidance, as well as literacy and capacity restraints. Farmers may be reluctant to share data, particularly if it will be used and owned by someone else. This may put them in the position of having to forgo access to beneficial digital services.

Why a farmer-centric approach is needed:

How data is governed affects which products, services, and insights are used, and what decisions it informs. Our sector's potential is limited by dominant monopolies and asymmetries (i.e., when one farmer has access to more information than others). The current data economy is largely defined by a paradigm of extraction and a lack of consideration of equity, whereby the role of individuals and communities goes unrecognized. There is an immediate need to design

processes for data governance and ownership that put the needs of farmers at the center. Empowering farmers with more control over their data is critical to improve and protect their lives.

New forms of data governance and ownership give place for alternative ways to center farmers:

User-centric models can help shift the paradigm. Participatory approaches enable new initiatives focused on tackling society's biggest challenges and empower farmers with alternatives to current governance and commoditization. There is a pressing need to unpack these practices. Doing so can dramatically and retroactively enhance the impact of the work done so far and benefit USAID's and The Bill and Melinda Gates Foundation's own direction. We believe in unlocking opportunities for farmers and collaborators in order to gain greater insights and meaningful agency over data generated by and about them. We also believe in helping farmers forge paths away from certain harmful hegemonic approaches. Varying incentives and backgrounds influence these models. Understanding the context and suitability is crucial in creating appropriate participatory approaches.

Our objective is to demonstrate opportunities of emerging user-centric models and actions required

to create an enabling environment of socio-technical factors needed for implementation. Together with USAID, BMGF, and others, we will better understand what it takes to go from concept to actual change. We will further aim to:

- Raise awareness around the current data economy and implications of status quo,
- Put farmer-centric data governance approaches on the radar of our primary stakeholders,
- Demonstrate purpose, value and benefits, (and challenges) of these emerging practices, and
- Identify if support for implementation is needed and in what form.

Would you like to learn more and help us with this assessment? Are you interested in learning more about these alternative forms of data governance? We would like to invite you for a short interview to help us gain insights on ongoing experiences and practices of relevance and to further learn what steps are required to advance farmer-centric data governance. Furthermore, this assessment will produce a practical report, including a literature review, landscape analysis of initiatives, assessment of the enabling environment, many interesting case studies and country briefings, a best practices toolkit, multiple stakeholder consultations, and a policy dialogue.

Below we introduce a primer of exemplary practices. These practices are not exclusive or exhaustive and often seek different objectives. You might already employ a number of these approaches.

Data commons pool and share data as a resource, with a high degree of community ownership and leadership. This approach can address power imbalances by democratizing access to and availability of data. They can be created with very different data and governance structures. A prerequisite is that they be stewarded responsibly (for which many refer to

Ostrom’s 8 principles). [Wikipedia](#) and [OpenStreetMap](#) are data commons. In science communities, research data is often pooled to increase the impact of data held by individuals. The discourse revolves around the learnings of open access and application of new forms of management.



Fig. 1: A meta-model of alternative data governance approaches

Data cooperatives are a legal or fiduciary construct to facilitate the collaborative pooling of data by individuals or organizations for the economic, social, or cultural benefit of the group. The data holder is often co-owned and democratically controlled by its members. Many co-ops have been formed in recent years in direct opposition to major platforms (like [FairBnB](#)). Data co-ops aim for clarity and openness around the value of data with new paths for governance. [Driver's Seat](#) and [Savvy Coop](#) gather combined data to gain new insights. When Driver's Seat sells data to government agencies it shares profits with the drivers. Savvy Coop members are co-owners with voting rights and choose with whom to share data. Co-ops can shift power to data subjects, who typically have very few rights in mainstream ventures. The agricultural sector is very familiar with cooperatives.

Data trusts are legal obligations where a trustee stewards data rights in the interest of a beneficiary or a group of beneficiaries. The trustee has a fiduciary duty to act according to predefined terms and conditions. Data can be pooled from different sources and a trustee can negotiate access by others on behalf of the collective. Trust law exists in some countries, but fiduciary duties exist more broadly. This nascent approach helps establish a ‘fiduciary’ responsibility for organizations that handle data, using private law infrastructure without being overly dependent on government action. Significant questions remain about which laws are compatible where (for either “data” or “rights to data”) and how to govern or hold trusts truly accountable.

Data fiduciaries facilitate security and control over personal data as an intermediary between individuals and data collectors, ranging from information fiduciaries that focus on a “duty of care” toward data subjects, to various technical solutions that act as a buffer between one’s personal data and a private entity or online interaction. Personal data stores focus on storing personal data and negotiating access. [Digi.me](#) allows users to upload and store data and decide with whom it will be shared. Fiduciaries could help rebalance the relationship between individuals and data holders.

Data collaboratives can be used as a term to describe initiatives where private sector data is combined and shared with a third party who manages access to it, usually to make proprietary or siloed data available to inform research or public sector decisions. [The Global Fishing](#) and [Forest Watch](#) combines satellite tracking data to create a map that tracks activities, similar to for profit approaches, yet acting as responsible data steward to empower members or the general public.

Indigenous data governance shifts access and control over data away from governments and others directly to Indigenous People. Considering how withholding

of information has been used as a vector of control, these approaches illustrate how important data sovereignty can be to self-determination. Here, data stewardship entails governance on behalf of (and by a community in) the entire data lifecycle. The mainstream open data and FAIR principles discourse have been faulted for ignoring historical contexts and power differentials and propose safeguards in the “[CARE Principles](#).”



Fig. 2: Map of primary countries of interest