ENABLING FAIR DATA SHARING AND RESPONSIBLE DATA USE

Locations	Ethiopia, India, Sub-Saharan Africa, United States
Dates	01/09/2021 - 31/12/2024

Summary

The generation, collection, storage, use and sharing of data can be time-consuming and expensive. Often, effort is duplicated, or the potential value of data is lost because the data cannot be found, accessed, used, or reused. Not all of the Bill & Melinda Gates Foundation's data-rich work has met its potential because data has not been shared or assets have not been used in new contexts. The foundation is committed to unlocking the full value of data in agriculture and food systems through open and interoperable data ecosystems. In this project, CABI will address constraints in realizing the value of data in the foundation's investments by increasing the capacity and capability of Program Officers, grantees and national systems to initiate and manage change processes towards FAIR (findable, accessible, interoperable and reusable) and responsible data management.

The problem

Agricultural development projects generate huge amounts of data. Collecting, using, generating and storing data is costly and takes time. When data isn't FAIR (findable, accessible, interoperable and reusable), the effort of collecting data is often duplicated, or data is lost or overlooked, meaning its potential value can be

lost.

Many of the foundation's data-rich projects cannot unlock the value of generated data because data cannot be found, accessed, integrated into other datasets or reused.

However, the foundation is committed to changing this by encouraging open and interoperable data ecosystems. Such ecosystems include a strong data sharing culture, robust governance, policy, accountability, frameworks and protocols, risk protection (eg privacy and security), data management plans (eg registries and repositories), data sharing agreements and FAIR processes, supported by consistent identifications such as common metadata.

Impact and change can be made through the application of practices, processes, tools and assistance services.

Solutions, however, do not only mean developing a new platform or technology. CABI believes that understanding system challenges and?addressing?them with a systems-thinking and?people-first approach (recognizing how interconnected we are and acting with empathy and innovation) and using effective processes, lead to more sustainable digital interventions?for agriculture.

What we are doing

In this project, CABI will address responsible FAIR data sharing and improved data management practices, and identify possible risks encountered during the development of interventions to achieve this.

CABI's approach will be divided into three workstreams:

- **Technical assistance and mentoring**

Focused on supporting Program Officers (POs), grantees and other stakeholders, and using a human-centered and design-thinking approach to introducing FAIR data practices.

- **Resource research and creation**

Focused on prioritizing evidence-based research, building relationships with international experts and commissioning and designing tools, resources and guidance aimed at overcoming challenges related to implementing FAIR principles.

- **Embedding resources**

Focused on preparation for mainstreaming tools and resources within the foundation through a defined product.

Each of the pillars will be underpinned by partnership development (ensuring cohesion with the wider FAIR community) and monitoring and evaluation activities.

Drawing from CABI's experiences and project outputs from 'Enabling data access to support innovation in decision agriculture: soil health, agronomy and fertilizer', CABI's vision is that FAIR processes and awareness increase the value of data generated in agricultural projects. Through an assisted, and then self-guided set of evidence-based, reusable and replicable FAIR tools, processes and resources, supported by advocacy around the benefits of responsible data-sharing, CABI can help build the groundwork for foundation stakeholders, including POs, to activate change.

The FAIR Journal – a bite-sized digital magazine-style resource curated by CABI, provides updates on EDA3 developments and other key insights, emerging knowledge, advocacy, and learning around the FAIR Principles.

Results so far

Expected outcomes of the project include:

- **Improved capacity?for the foundation's Agricultural Development POs and grantees?to implement FAIR**

POs and grantees will have skills and confidence in designing grants with data components and understand why they succeed or fail. Grantees will become agents of change towards FAIR data and responsible implementation, applying these freely, while investment risks related to good data practice and project success are understood. For data utility, the aim is that POs recognize the value of improving it and how it might help achieve investment goals.

- **The foundation is prepared for mainstreaming FAIR in grant-making**

This will involve ensuring good practices for FAIR data and the responsible use of data are in place throughout the foundation's investments. In addition, evidence of improved investment success and the impact of implementing FAIR data will be provided as well as strategic evaluations and trends in FAIR data ecosystems to help ensure continuous improvement. Finally, the learnings from FAIR data are taken across the foundation.

- **Number and type of new investments implementing FAIR**

With the resources and technical support provided by CABI, it is expected that there will be new investments implementing FAIR across portfolios in the Agricultural Development Team in the foundation that will help achieve investment goals.

Donors	Bill & Melinda Gates Foundation
Partners	Data-Pop Alliance, ODI, MetaData Works, ITAD, Phillpott Design
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