The FAIR Journal

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Building community, capacity and knowledge of FAIR data processes for POs and grantees. Championing improvements in data-rich foundation investments — to help deliver greater returns in-country. fair@cabi.org

Explore the tools for FAIR and responsible data practices at *fairprocessframework.org*

FAIR *Process Framework*

Welcome to the FAIR Journal

A message from Martin Parr, [Director of Data, Policy & Practice](#), CABI

We all know the depth and value of data-informed research in agricultural development to date. But is it worth anything if we don't know where that data is, or cannot use it to push innovation forward?

Where the data is, and how we can use it to inform future research and decision-making, are among the most important questions for sustainable development going forward.

Recently, I was a proud member of the CABI team that launched the [FAIR Process Framework](#) in Seattle.

We at CABI know its potential value to the Bill & Melinda Gates Foundation and beyond, including through adoption by its diverse ecosystem of grantees and in-country partners.

We are also keen to show it to anyone who would like to maximize data value. In this final edition of The FAIR Journal – for now – we are focusing on the framework's practical applications and how CABI can support users.

Chipo Cosford launches the FAIR Process Framework to help support new technologies for greater global food security. [Read more](#)

Knowledge Share: Helping you plan and implement FAIR and responsible data practices

Go to the fairprocessframework.org

Learn more about the Fair Process Framework in this video

FAIR Process Framework Users

- Bill & Melinda Gates Foundation Program Officers
- Grantees and potential grantees
- Partners in agricultural development
- Anyone interested in maximizing data value

Usage

- Step-by-step, bite-sized activities for improved data handling
- Incorporates FAIR principles into investment decision-making
- Engages stakeholders to integrate FAIR practices into proposals, budgets, and success indicators

Purpose

- Optimize data management and reuse in research and development
- Save billions by treating data as a valuable asset
- Enhance strategic decision-making and innovation in global food security
- Prevent duplication, time waste, and data silos

Benefits

- Ensures data assets are findable, accessible, interoperable and reusable
- Upholds open access policies
- Furthers agricultural development
- Improves data governance with potential for wider positive impacts
- Enables more APIs and GenAI to make use of valuable data

Explore the FAIR Process Framework: Your Go-To Resource Hub

Use these links to access guidance, templates and other relevant tools

Data Management and Access Plan (DMAP):
[Guidance and template](#)

Data Sharing Agreement (DSA):
[Guidance and template](#)

Data governance policy:
[Guidance and template](#)

Data ecosystem mapping:
[Guidance and tools](#)

Data standards (and licensing):
[Guidance and other resources](#)

Identify output and input data assets:
[Guidance for data inventories](#)

FAIR Enabling Resources:
[Data repositories, platforms and other useful tools](#)

Case studies:
[People using FAIR practices for Agricultural Development](#)

FAIR Primer:
[An introduction to FAIR and responsible data practices](#)

FAIR in action: Change and the SIS Framework

An example of using FAIR principles and activities to support transition and behavior change

New innovations are important but it's essential to focus not just on technical solutions but also on securing policy buy-in and addressing financial and social challenges.

While creating the FAIR Process Framework, the CABI team was concurrently working on several projects to trial, explore and implement FAIR processes to improve agricultural development. For example, some of the team spent much of 2024 working on designing and developing the new sustainable national Soil Information System (SIS) Framework in collaboration with ISRIC-World Soil Information. By integrating insights from the global soil data community, and using FAIR data practices and principles, the team saw how the FAIR Process Framework could ensure a SIS's data is FAIR, from data collection to reuse. The team used activities from the FAIR Process Framework, steps to support stakeholder engagement around data sharing challenges, showing how the FAIR Process Framework benefits *anyone* who wants to start their journey to implementing the FAIR data principles in agricultural development initiatives.

Responses to the SIS Framework launch in September, show the ripple effects of embedding FAIR, i.e. FAIR practices driving wider implementation of FAIR-informed policy and guidance in an ecosystem. For example, CABI joined a continental level partnership to support development of African Soil Information Systems. The African Continental Level Support Team –

a new partnership between Forum for Agricultural Research in Africa (FARA), ISRIC, CABI and supported by FAO came about because of the alignment on the approaches needed to make soil data accessible through sustainable SISs.

The partnership marks a significant step forward in advancing FAIR-compliant SISs in Africa.

Knowledge Share: How to develop a Data Sharing Agreement (DSA)

How the FAIR Process Framework can augment data sharing agreements and similar contractual instruments

FAIR *Process Framework*

5.3 Data Sharing Agreements

Developing an agreement between two or more entities who are either providing or receiving data on how the shared data can be used

What is a Data Sharing Agreement (DSA)?

A DSA is essentially a legally binding contract that sets out the key terms and conditions regarding the sharing, access to, and use of, specific data assets.

It covers issues including data management, data security, preservation of intellectual property rights in the data assets, downward sharing of data, and aligned issues. And, like any contract, it has binding force allowing for civil remedy(ies) if either party breaches the arrangement.

DSAs have become a cornerstone of data transactions ensuring a balancing of competing interests.

Learn more about the implementation of DSAs in Step 5.3 of the Fair Process Framework.

FAIR Process Framework and DSAs

The FAIR Process Framework encourages co-development in the implementation of FAIR and responsible data practices, recognizing co-development is crucial in an ecosystem (like Ag Dev).

Co-development translates into formal legal instruments to facilitate data sharing and access, and responsible data management (in the form of data management policies or guidelines) and data sharing agreements.

Using the FAIR Process Framework means negotiating DSAs can be a relatively less complex process as the parties using FAIR Process Framework likely have *consensus ad idem* (latin legalese for common intent and being like-minded). The FAIR Process Framework also provides context and nuance, showing how the 'terms and conditions' for data sharing need to be formulated into a contract (i.e. the DSA).

Knowledge Share: Data Management and Access Plans (DMAPs)

How the FAIR Process Framework and the CGIAR: Recipe books to help complete a DMAP and why it is a crucial step for any investment

The [FAIR Process Framework](#) has many practical applications designed specifically to help anyone working on an investment or research project in agricultural development. For example, in [Step 5, the Framework explores planning with DMAPs](#).

The activities in the framework help you and your research and development partners understand how crucial it is to have a well thought-out 'living' document outlining how data will be collected and handled during an investment's life, including ensuring everyone knows the answer to 'Where's the data?' when it ends.

DMAPs are an important way to ensure data-handling efficiency, accountability, regulatory compliance, and to safeguard against unauthorized access/security breaches. They can help your project stay within the guidance of a donor's open access policy. And finally, they can offer a plan or route for managing the lifecycle of your data, including ensuring that stakeholders understand their respective roles and responsibilities.

Using this step will help demystify the DMAP process.

- Define technical standards and architecture describing how you will manage data assets.

- Employ data modelling and design, to make sure it is interoperable and well structured.

- Store, manage and archive data, and create metadata and supporting documentation.

- Implement data access controls so that data is used only by those with appropriate rights, and in accordance with privacy regulations and security policies.

- Assess and improve data quality.

- Find tools and technologies that support data access and use, in line with processes described in relevant data governance policies.

- Publish and share data using technical processes to promote openness and accessibility.

It also offers a detailed account of how to approach specific questions in the DMAP documentation when you are working with the foundation.

FAIR *Process Framework*

CGIAR: Recipe books

CGIAR Recipes integrate the FAIR Process Framework activities to develop data management access plans (DMAPs), ensuring the delivery of FAIR agricultural data for innovation.

Learn more about how DMAPs help ensure compliance with Open Access Policies by reading the [FAIR Process Framework Step 5.2](#), and watching the [video to hear from CABI's Arun Jadhav](#), or, by exploring the [CGIAR: Recipe books](#), which integrate the framework's activities to ensure FAIR delivery.

FAIR in Action: The origins of the FAIR Process Framework

CABI's work for the Bill & Melinda Gates Foundation: Why mainstreaming FAIR and responsible data practices is a good idea

Eight years ago, Ruthie Musker and Martin Parr had the good fortune to have a great conversation with Stanley Wood at the Bill & Melinda Gates Foundation about the challenges around access to research and development data. At the height of what might now be seen as #opendata hype, the question seemed not to be whether the idea of increasing access to data was a good thing, but how to do it. The major funders of agricultural development research were frankly confused. Many firmly said they wanted to support grantees to better manage and share their data, but messages were very mixed.

The FAIR data principles were emerging at the same time but seemed too mechanistic on their own. Where was the human perspective? Or the understanding of how networks work, and the value of co-creation?

Ruthie and Fiona Smith examined this confusion in a great policy analysis report and in a follow up, Stan introduced us to Christian Witt at the foundation.

Christian wanted support to understand why data wasn't being shared in some key digital farmer services investments.

From 2018, we worked with partners at the ODI, and with foundation investments across Africa and South Asia, building understanding of what works.

Our collaboration in Ethiopia with colleagues Negussie Efa and Mike Rose, GiZ, government, researchers from the CGIAR, and a coalition of willing soil and agronomy data sharers, helped firm up our understanding of what could work. This engagement also highlighted the value of understanding relationships, institutional culture, and policy.

From 2020, Tuu-Van Nguyen at the foundation helped us plan for how we might take these insights to scale.

In the past couple of years, we've been working with Jessica Cagley and with the support of Margarita Aswani to start mainstreaming these insights at the foundation, boiling down that understanding of what is effective into actionable guidance. Based on the idea that support to

achieve effective data management and sharing needs to be as simple as possible, and that tools need to be embedded in grant making processes and real-world contexts, the team, guided by Chipo Cosford in the UK, helped turn the theoretical into the practical tools of the FAIR Process Framework.

The team also worked with a firm belief in a theory of change built by CABI which posits that ripple or gateway effects can be achieved as individuals are supported to adopt data access good practice and spread FAIR and responsible approaches within the larger data ecosystem.

The FAIR Process Framework provides a comprehensive suite of tools to support the implementation of FAIR principles across data-rich AgDev projects. It is designed to help unlock the full potential of agricultural data, advancing the foundation's Open Access commitments to promote data availability, usability and accessibility.

The FAIR Journal

Authored by the Enabling Data Access team at CABI for the foundation

Thank you for reading our journal. You can read past journals [here](#).

Are you considering how data is treated within your organization? The [FAIR Primer](#) is a practical tool for introducing concepts around FAIR and responsible data sharing. You can access the FAIR Primer as a [printable PDF here](#) or as this [Miro board](#) for use online. To get a copy of the physical cards, please contact fair@cabi.org.

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