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Introduction

https://youtu.be/Ng_E3qY-oso

https://www.fao.org/food-agriculture-microdata/en/?hdhdh.

Introduction

- The demand for accessing microdata is progressively increasing, especially microdata measuring food security and the performance of farms

- National governments and international organizations are also embracing microdata dissemination to add value to their data assets and stimulate research and policy analysis of development outcomes.

- Before the launch of FAM catalogue, very few agricultural Census/surveys as well as food security/nutrition surveys disseminated by the IHSN

Overview of the FAM Catalogue

- The ambition of the FAM catalogue is to become a one-stop shop for finding micro datasets related to food security/nutrition, agriculture/forestry/fishery and other related domains relevant to FAO's mandate, complementing the IHSN.

  - Launched on July 15, 2019. Currently the catalogue has over 1,240 studies.

  - Each study comprise metadata, related documents, and in most cases also microdata.

  - IT structure is based on the National Data Archive (NADA), developed by the WB. Other key methods & procedures borrowed from the IHSN

  - Metadata standard is based on the Data Documentation Initiative (DDI)

Overview of the FAM Catalogue

- A number of protocols to protect data confidentiality were also developed by FAO (Office of Chief Statistician).

    - Microdata and Metadata Curation and Dissemination (MMCD) protocol which guides the microdata dissemination process and data publication workflow.

    - Statistical Disclosure Control (SDC) protocol which explains and guides the data anonymization procedure.

- Data anonymization is extremely important in order to protect the confidentiality of the respondents and gain the trust of the data providers

- Thus, all microdata published on FAM are fully anonymized before dissemination.

Overview of the FAM Catalogue

https://microdata.fao.org

Food and Agriculture Organization of the United Nations | Microdata at FAO

Home / Food and Agriculture Microdata Catalogue

Food and Agriculture Microdata Catalogue

Keywords...   **Search**

📄 Browse Citations

Years ⌄		
Countries ⌄		
Collections ⌄		
License ⌄		

Showing **1-15** of **1,247**   Study view | Variable view   Popularity ⌄

⊜ **Comprehensive Food Security and Vulnerability Analysis and Nutrition Survey 2012**

RWANDA, 2012

National Institute of Statistics of Rwanda

Collection: Food Security

ID: RWA_2012_CFSVANS_v01_EN_M_v01_A_OCS   Last modified: Sep 02, 2020   Views: 510434

⊕ Data available from external repository

FAM Features and Functionalities

- FAM provides different filter options for users to find and select the desired datasets.

Years	⌄

Countries	⌄

Collections	⌄

License	⌄

- Users can also find datasets using the keyword search option

Keywords...	Search

FAM Features and Functionalities

- Users can sort studies, either by popularity, relevance, year, title and country.

- Other features and functions of FAM include

  - Deposit data files and documents – Only FAO users

  - Browse relevant citations

  - Analyse the study description – DDI metadata

  - Analyse the data description

  - Download documents related to the study

  - Download the microdata

Data Collections
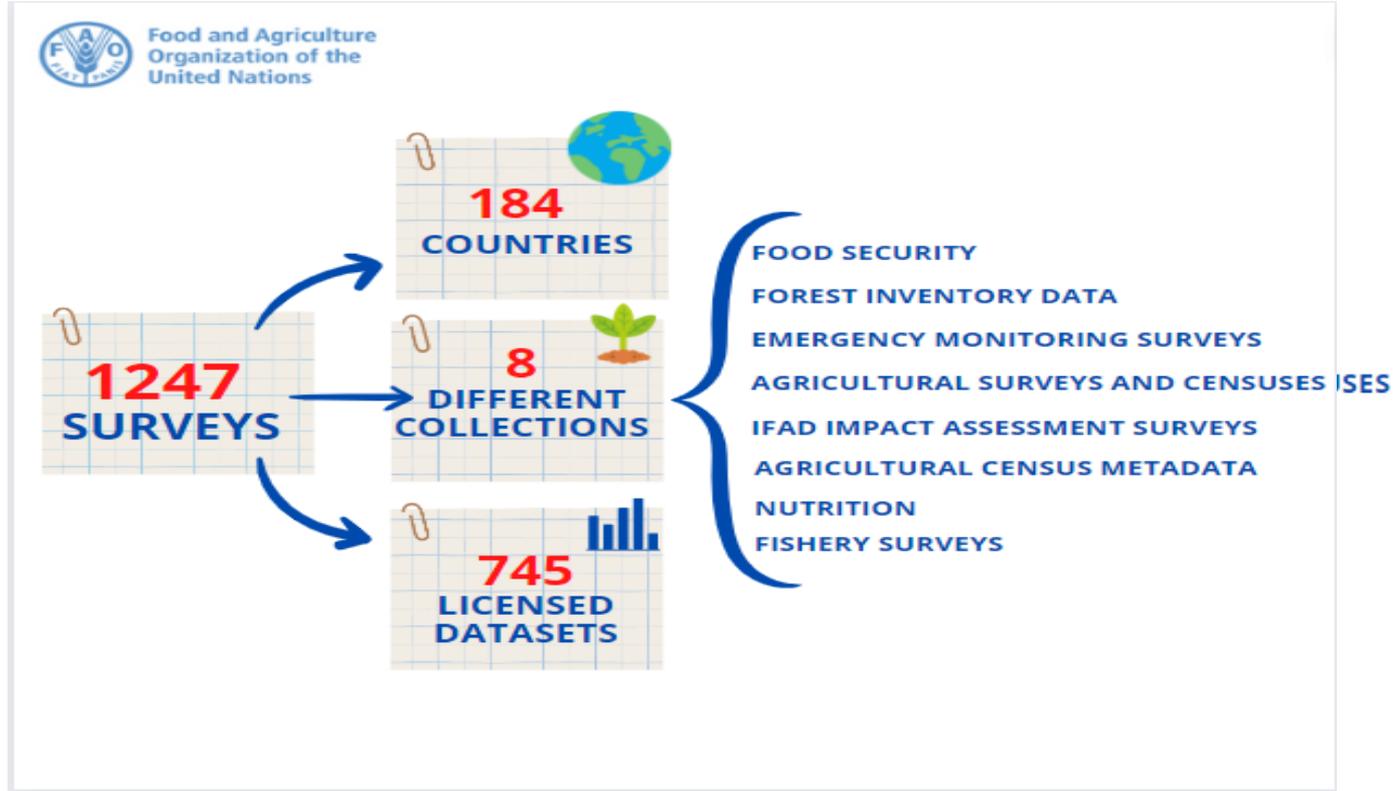
Data Collections by Theme

Type of Collection	Number of Studies
1. Food Security	634
2. Agricultural Census and Surveys	423
3. Agricultural Census Metadata	126
4. IFAD Impact Assessment Surveys	18
5. Data in Emergencies Monitoring Surveys	34
6. Nutrition Surveys	5
7. Forestry Surveys	3
8. Fishery Surveys	4

Publication Workflow

Data provider makes a data deposit with relevant metadata and documentation.

FAM team works on data wrangling and data anonymization.

FAM team monitors the data requests and provides user statistics together with valuable insights to the data providers.

After data provider's approval, dataset is published in **FAM catalogue.**
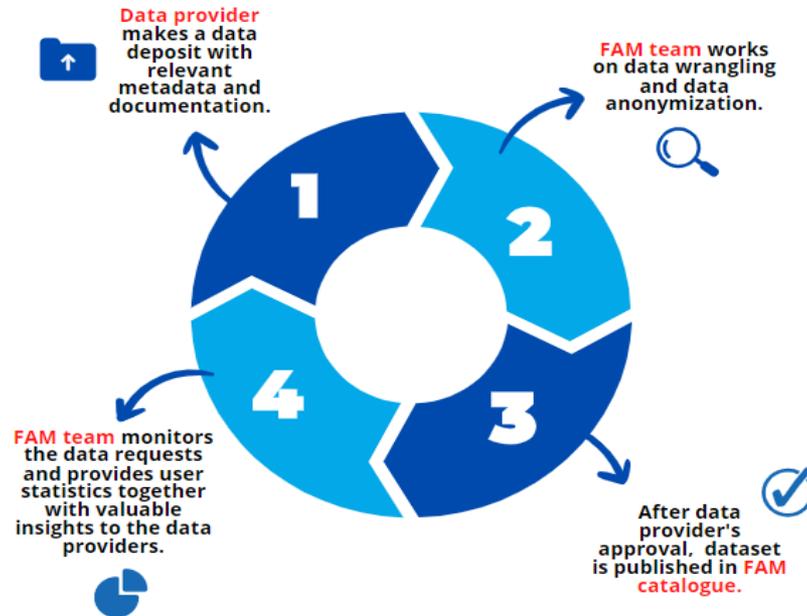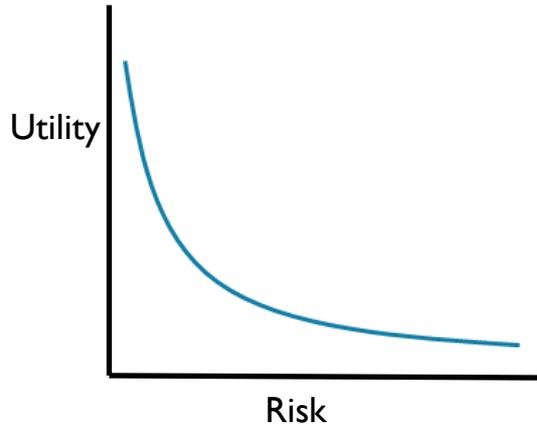
Data Anonymization Process

Risk-Utility Trade-off

SDC is characterized by the trade-off between risk of disclosure and utility of the data for end users

- (A) – No data is released -> zero risk and no utility for users

- (B) – Data is released without treatment -> Maximum risk and maximum utility

The objective is to find an acceptable level of risk while maximizing the utility of the data for users

Data Anonymization Process

- Anonymization of data involves removing or altering variables contained in the dataset
- The first step is to identify direct and quasi-identifiers.
  - Often this relies on some degree of personal judgement
- Direct identifiers and extremely sensitive variables are always removed
- To anonymize the data, the level of precision of the quasi-identifiers is modified to lower the disclosure risk to an acceptable level

Data Anonymization Process

The main steps of the SDC Process used for the FAM catalogues involves

1. Removal of direct identifiers and extremely sensitive variables.
2. Definition of quasi-identifiers and disclosure scenarios.
3. Risk assessment and application of disclosure limitation methods.
4. Documentation and evaluation of protected datasets by the data curator and data provider.
5. Once both parties are satisfied with the level of protection, the anonymized data are submitted to the Chief Statistician for approval and then released for dissemination.

Call for Engagement

Private Sector Institutions that hold data assets containing the following types of information, are encouraged to submit proposals:

- – Farm level data (crop and livestock production, area harvested/planted, use of labour, income/expenditures, environmental impact, inputs, etc.)
- – Food losses – At any stage of the supply chain
- – Water use and area irrigated
- – Food Consumption
- The data should not be already published, should be cleaned, detailed and hold great analytical potential.

Call for Engagement

- The call for engagement is a data proposal form developed to encourage external data providers to submit datasets for dissemination in FAM.

- It serves as a means of unlocking agricultural data to achieve the SDGs.

- The main aim of this is to build collaborations and gain access to data from non-traditional data producers, in particular the private sector to help transform their data into public goods.

- Syngenta is the first private sector company which accepted this call for engagement.
  - Now the Good Growth Plan (GGP) survey micro dataset, which contains survey data from 45 countries since 2014 has been published in the FAM catalogue

License to Redistribute

- External data providers that submit their datasets should sign the license to redistribute form.

- The main purpose of this form is to define the terms and conditions of the agreements between the data provider and FAO, so that the submitted datasets can be published in FAM.

- This document specifies the guarantees and obligations of the data provider, the obligations of FAO, the terms of use under which the data is published and some general terms and conditions of the agreement.

Data Access

- Internal users can login with their FAO credentials, while external users can login with a google account.

- To access a licensed dataset, users have to select "GET MICRODATA" and fill an application form, containing the terms of use.

STUDY DESCRIPTION   DATA DESCRIPTION   DOWNLOADS   🔒 GET MICRODATA

Application for Access to a Licensed Dataset

Fields marked with * are mandatory.
The information provided on this page will be kept confidential and will be used for internal purposes only.

First Name	Oluwakayode.Anidi
Last Name	
Organization	

Application for Access to a Licensed Dataset

- Filling an application is a required step to access a licenced dataset.

- The following information is requested:
  - Intended use of the data.
  - List of expected outputs and expected dissemination outlet(s) and/or strategy.
  - Research team members (other than the Lead Researcher) which will have access to the dataset.
  - Identification of data files and variables needed.
  - In addition, users have to agree to the following data access agreement

Some Statistics on the Use of the FAM Catalogue

Users are those who have initiated at least one session during the period of analysis.

NUMBER OF USERS
59,399

SESSIONS
69,913

AVG. SESSION DURATION
00:01:36

A session is the period of time a user is actively engaged with the website.

*Data was collected for the period: Jul 15 2019 – Jun 16 2023

Source: FAM Catalogue

Some Statistics on the Use of the FAM Catalogue

USERS BY REGION

	Continent	Users	Users	Contribution to total: Users
		59,399 % of Total: 100.00% (59,399)	59,399 % of Total: 100.00% (59,399)	
1.	Asia	23,804	39.97%	
2.	Europe	14,005	23.52%	
3.	Americas	13,911	23.36%	
4.	Africa	6,930	11.64%	
5.	Oceania	825	1.39%	
6.	(not set)	76	0.13%	

USERS BY COUNTRY – TOP 10

			59,399 % of Total: 100.00% (59,399)	59,399 % of Total: 100.00% (59,399)
1.		China	7,649	12.79%
2.		United States	3,872	6.47%
3.		India	3,314	5.54%
4.		Mexico	2,304	3.85%
5.		Italy	1,869	3.12%
6.		Türkiye	1,793	3.00%
7.		Brazil	1,677	2.80%
8.		Egypt	1,661	2.78%
9.		Spain	1,427	2.39%
10.		France	1,427	2.39%

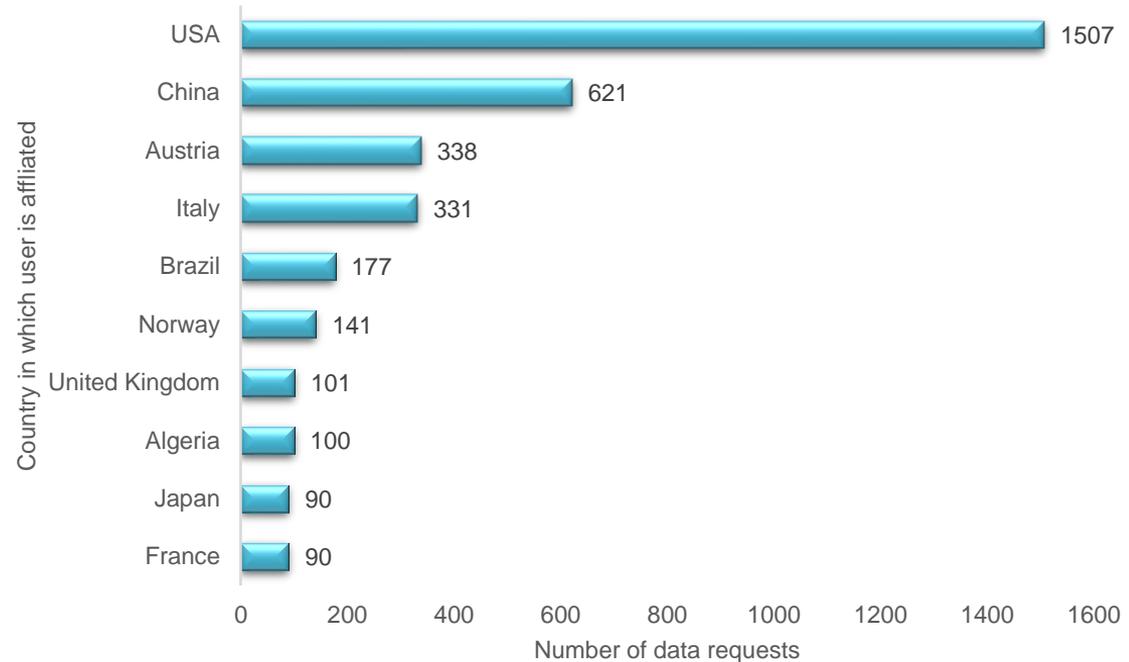*Data was collected for the period: Jul 15 2019 – Jun 16 2023

Source: FAM Catalogue

Some Statistics on the Use of the FAM Catalogue

DATA Requests by Country
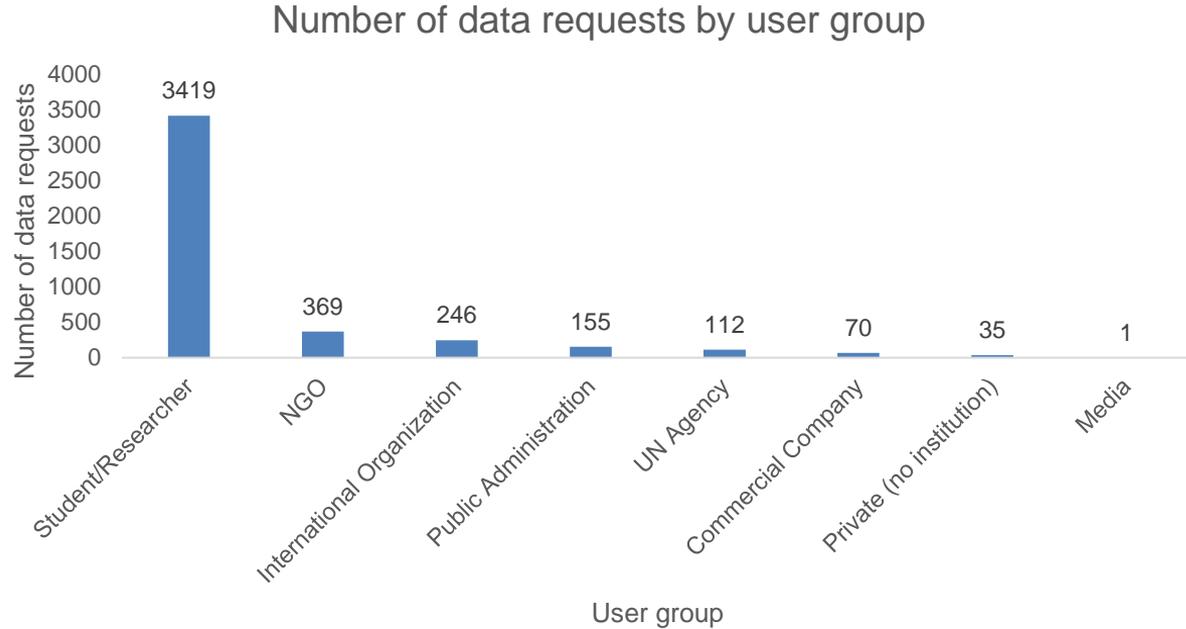
Top 10 countries based on data requests

*Data was collected for the period: Jul 15 2019 – Jun 16 2023

Source: FAM Catalogue

Some Statistics on the Use of the FAM Catalogue

DATA Requests by Type of Users

Number of data requests by user group

*Data was collected for the period: Jul 15 2019 – Jun 16 2023

Source: FAM Catalogue

Call for Engagement

DATA Requests by requesting organizations – TOP 20

Organization	Number of requests by organization	Number of unique users	Study type
School of Politics and International Relations, Lanzhou University	579	6	FIES and Good Growth Plan, 2015-2017
University of Illinois Urbana-Champaign	507	1	FIES
Duke University, Sanford School of Public Policy	446	2	FIES
World Data Lab	334	3	FIES
World Bank	159	13	FIES, Data in Emergencies Monitoring Household Survey (DIEM)
University of Bergen	141	1	FIES
Institute of Nutrition José de Castro, Federal University of Rio de Janeiro	125	2	FIES
United Nations University	102	1	FIES, Resilience Index Measurement and Analysis and Good Growth Plan, 2014-2019
University of Annaba	99	1	FIES
Food and Agriculture Organization	96	30	FIES, Post Harvest Losses - Pilot Survey 2018, National Biomass Study (2016-2019), IFAD Impact Assessment Surveys, Data in Emergencies Monitoring Household Survey (DIEM)
Universidad Nacional de Salta - Argentina	78	1	FIES and Good Growth Plan, 2014-2019
Duke University, Nicholas School of Environment	68	1	FIES
Italian National Institute of Statistics	61	3	FIES
European Commission - JRC	42	4	FIES and Data in Emergencies Monitoring Household Survey (DIEM)
Fondazione CMCC	39	1	FIES
USAID	39	7	FIES
OECD	34	1	FIES
Colorado State University	26	1	FIES
University of Southampton	26	1	FIES
Inawa Institute	23	1	FIES

Source: FAM Catalogue

Example of publications based on microdata accessed through the FAM catalogue

CORPORATE AUTHOR
World Food Programme (WFP). "The power of gender equality for food security: Closing another gender data gap with a new quantitative measure." Rome, Italy: Gender Office, WFP, 2020.

JOURNAL ARTICLE
Cafiero, Carlo, Sara Viviani, and Mark Nord. "Food security measurement in a global context: The food insecurity experience scale." Measurement (2018).

JOURNAL ARTICLE
Barlow, Pepita, Rachel Loopstra, Valerie Tarasuk, and Aaron Reeves. "Liberal trade policy and food insecurity across the income distribution: an observational analysis in 132 countries, 2014–17." The Lancet Global Health Volume 8, no. Issue 8 (2020): 1090-1097.

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JOURNAL ARTICLE
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THANK YOU.

https://www.fao.org/food-agriculture-microdata-catalog

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