

# **Improving access to and use of microdata from agricultural censuses and surveys**

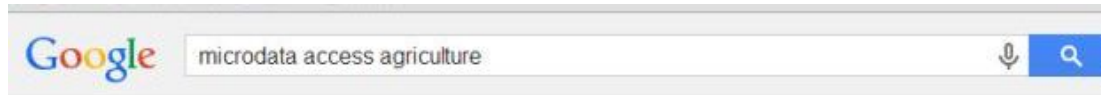
*What role for FAO at national and global levels?*

**Francois Fonteneau**  
**Statistics Division, FAO**

# Content

1. Rationale for improvement
2. How? Examples of what the IHSN and ADP are doing
  1. Focus: metadata
  2. Focus: confidentiality + terms of use
3. Examples from agencies: it can work
4. A possible role for FAO

# Rationale for improvement



Circa 2.090.000 risultati (0,41 secondi)

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[Opening Up Microdata Access in Africa | Center For Global...](#)  
[www.cgdev.org/.../opening-microdata-access-afric...](http://www.cgdev.org/.../opening-microdata-access-afric...) ▼ Traduci questa pagina  
19/ott/2012 - This survey should be a keystone reference for understanding poverty, **agriculture**, employment and many other issues. Unfortunately, although ...

[Opening Up Microdata Access in Africa | Impact Evaluations](#)  
[blogs.worldbank.org/.../opening-up-microdata-acc...](http://blogs.worldbank.org/.../opening-up-microdata-acc...) ▼ Traduci questa pagina  
01/ott/2012 - This survey should be a keystone reference for understanding poverty, **agriculture**, employment and many other issues. Unfortunately, although ...

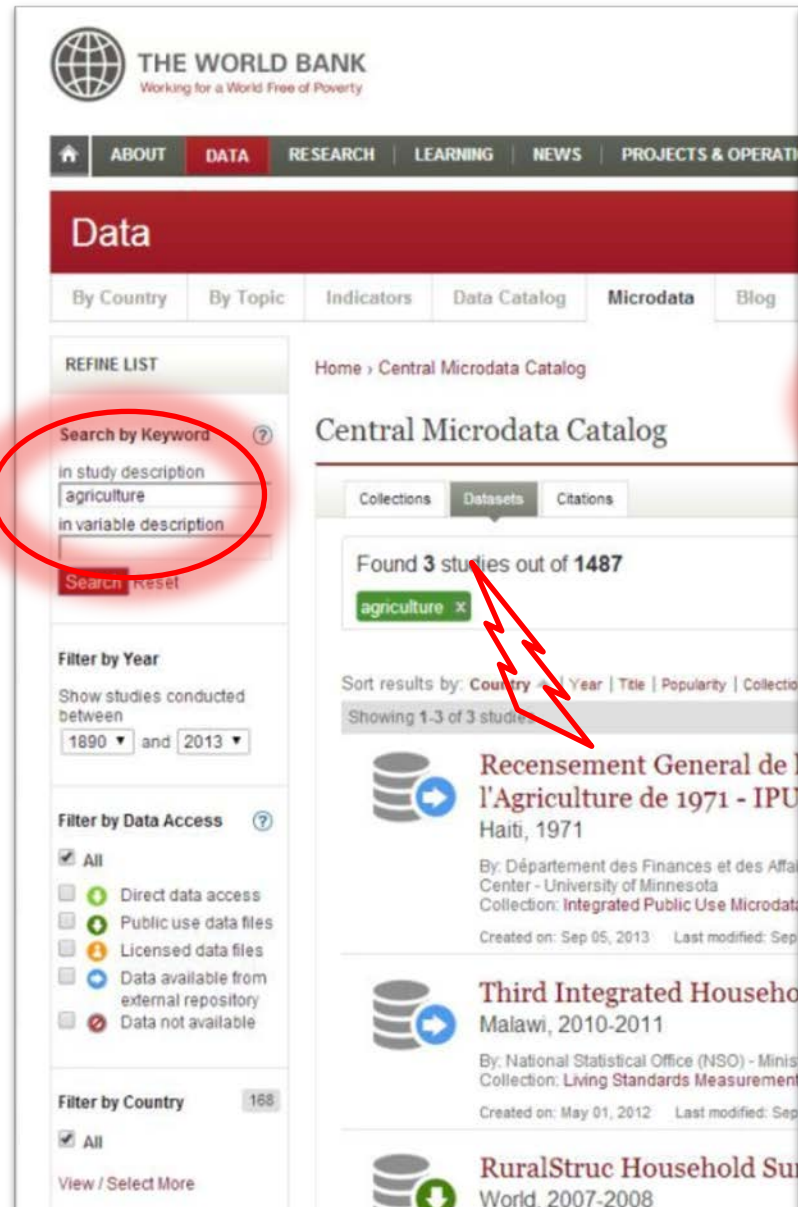
[\(PDF\) Improving researcher access to USDA's Agricultural ... - Eurostat](#)  
[epp.eurostat.ec.europa.eu/.../TOPIC%202-WP.23%...](http://epp.eurostat.ec.europa.eu/.../TOPIC%202-WP.23%...) ▼ Traduci questa pagina  
oped easy to use web-based data delivery tools that expand access to farm survey ...  
The importance of **microdata** to economic research was the theme of Heck-

[Understanding American Agriculture: Challenges for the ...](#)  
[books.google.it/books?isbn=0309178991](http://books.google.it/books?isbn=0309178991) - Traduci questa pagina  
Panel to Review USDA's Agricultural Resource Management Survey, National Research Council - 2007 - Technology & Engineering  
Challenges for the **Agricultural** Resource Management Survey Panel to Review ...  
**MICRODATA. ACCESS. FOR. DATA. USERS.** The individual records derived ...

[ABS Microdata \(CUREs\) - Agriculture and Environment - Subject...](#)  
[libguides.library.usyd.edu.au/content.php?pid...](http://libguides.library.usyd.edu.au/content.php?pid...) ▼ Traduci questa pagina  
20/nov/2013 - How do I access CURF **Microdata**? CURF data is freely available to University of Sydney researchers under agreement between the Australian ...

[\(PDF\) Session 4a: From Official Statistics Producer to Data User](#)  
[www.dwbproject.org/.../dwb\\_bucharest\\_23012012...](http://www.dwbproject.org/.../dwb_bucharest_23012012...) ▼ Traduci questa pagina  
23/oen/2012 - Access to Official **Microdata** & Accreditation of Researchers in Eastern

# Rationale for improvement



**THE WORLD BANK**  
Working for a World Free of Poverty

Home > Central Microdata Catalog

**Data**

By Country | By Topic | Indicators | Data Catalog | Microdata | Blog

**REFINE LIST**

**Search by Keyword** ?

in study description  
agriculture  
in variable description

Search Reset

**Filter by Year**

Show studies conducted between 1890 and 2013

**Filter by Data Access** ?

☒ All

- ☐ Direct data access
- ☐ Public use data files
- ☐ Licensed data files
- ☐ Data available from external repository
- ☐ Data not available

**Filter by Country** 168

☒ All

View / Select More

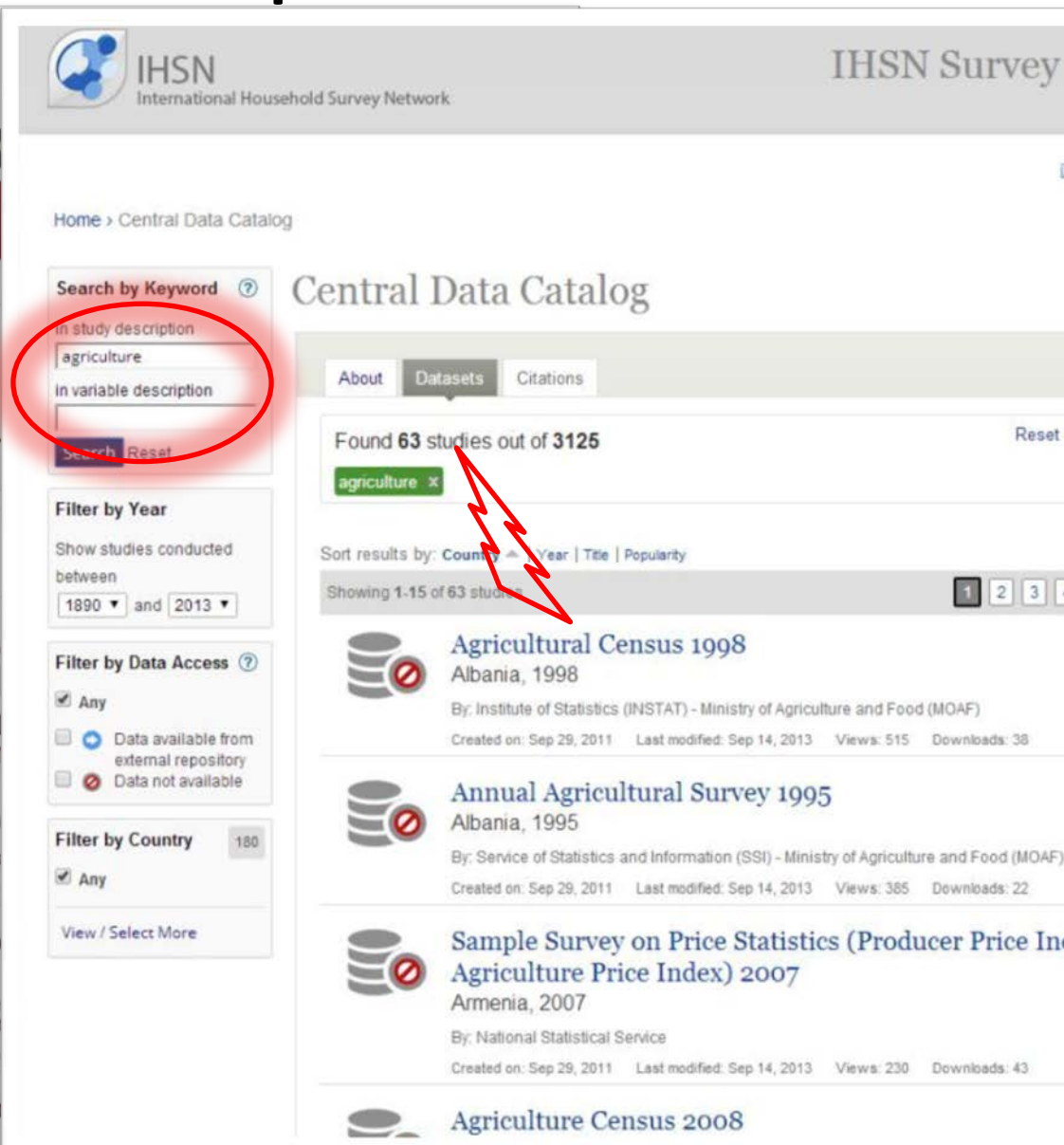
Found 3 studies out of 1487

agiculture x

Sort results by: Country | Year | Title | Popularity | Collection

Showing 1-3 of 3 studies

- Recensement General de l'Agriculture de 1971 - IPU**  
Haiti, 1971  
By: Département des Finances et des Affaires  
Center - University of Minnesota  
Collection: Integrated Public Use Microdata  
Created on: Sep 05, 2013 Last modified: Sep 05, 2013
- Third Integrated Household Survey**  
Malawi, 2010-2011  
By: National Statistical Office (NSO) - Ministry of Statistics  
Collection: Living Standards Measurement  
Created on: May 01, 2012 Last modified: Sep 05, 2013
- RuralStruc Household Survey**  
World, 2007-2008



**IHSN**  
International Household Survey Network

IHSN Survey

Home > Central Data Catalog

**Search by Keyword** ?

in study description  
agriculture  
in variable description

Search Reset

**Filter by Year**

Show studies conducted between 1890 and 2013

**Filter by Data Access** ?

☒ Any

- ☐ Data available from external repository
- ☐ Data not available

**Filter by Country** 180

☒ Any

View / Select More

Found 63 studies out of 3125

agiculture x

Sort results by: Country | Year | Title | Popularity

Showing 1-15 of 63 studies

- Agricultural Census 1998**  
Albania, 1998  
By: Institute of Statistics (INSTAT) - Ministry of Agriculture and Food (MOAF)  
Created on: Sep 29, 2011 Last modified: Sep 14, 2013 Views: 515 Downloads: 38
- Annual Agricultural Survey 1995**  
Albania, 1995  
By: Service of Statistics and Information (SSI) - Ministry of Agriculture and Food (MOAF)  
Created on: Sep 29, 2011 Last modified: Sep 14, 2013 Views: 385 Downloads: 22
- Sample Survey on Price Statistics (Producer Price Index) 2007**  
Armenia, 2007  
By: National Statistical Service  
Created on: Sep 29, 2011 Last modified: Sep 14, 2013 Views: 230 Downloads: 43
- Agriculture Census 2008**

# Rationale for improvement

## Complaints from users:

- *“we didn’t know they had these data”* Visibility
- *“they don’t want to share them”* Accessibility
- *“these data are messy”* Reliability
- *“this is not really what I need”* Relevance
- *“how can I assess progress?”* Comparability
- *“where is the documentation?”* Usability
- *“there is no transparency”* Quality, credibility

# Rationale for improvement

Issues faced by producers:

- *“we don’t know how to deal with microdata”*
  - can we disseminate them in our country?
    - If YES, how to disseminate them?
    - To whom?
    - What costs?
  - how to document them?
  - how to improve transparency on sources?
- *“what do others do?”*
  - where is the good practice?

# Why should we improve?

- 1.To support research**
- 2.To enhance the credibility of official statistics**
- 3.To reduce duplication in data collection**
- 4.To increase return on investment and leveraging funding for statistics**
- 5.To comply with a contractual or legal obligation**

The obligation to disseminate microdata does not conflict with the obligation to maintain confidentiality and privacy but conflicts with the aim of CD projects for surveys and censuses, when these issues are ignored !

# Why it does not happen ?

- It is actually happening in some countries, but still many obstacles remain, such as:

- Legal issues : apply the law ... or change it
- Confidentiality: maintaining respondents' trust

“Individual data collected by statistical agencies for statistical compilation, whether or not they refer to natural or legal persons are to be strictly confidential and used exclusively for statistical purposes.” UN 6<sup>th</sup> principle for off stat.

- Other technical issues
- Exposure to contradiction
  - Quality of microdata
  - Discrepancies with aggregated, published official statistics
- Loss of exclusivity
- Cost and technical capacity



# IHSN: sharing solutions

- **IHSN Survey Catalogue**

- ✓ *3,100+ surveys described*
- ✓ *Link to access policies + datasets*

- **Software Tools**

- ✓ *Microdata Management Toolkit*
- ✓ *Microdata Anonymization Toolkit*
- ✓ *National Data Archive (NADA)*

- **Guidelines**

- ✓ *Long term preservation (ICPSR)*
- ✓ *Design of access policy*

The screenshot displays the 'Central Data Catalog' interface. On the left, there are search filters: 'Search by Keyword' with input fields for 'in study description' and 'in variable description', a 'Search' button, and a 'Reset' link; 'Filter by Year' with a range selector from 1890 to 2013; 'Filter by Data Access' with options for 'Any', 'Data available from external repository', and 'Data not available'; and 'Filter by Country' with a dropdown set to '180' and a 'View / Select More' link. The main content area shows 'Found 3125 studies out of 3125' and a list of studies. The first study is 'Global Financial Inclusion (Global Findex) Database 2011 Afghanistan, 2011' by the Development Research Group, Finance and Private Sector Development Unit - World Bank, created on Dec 20, 2012, with 5437 views and 207 downloads. The second is 'Mortality Survey 2010 Afghanistan, 2010' by the Indian Institute for Health Management Research (IIHMR), Central Statistics Organization (CSO), created on Feb 01, 2012, with 3033 views and 346 downloads. The third is 'Enterprise Survey 2008 Afghanistan, 2008' by the World Bank, created on Sep 29, 2011, with 37094 views and 479 downloads. Navigation tabs for 'About', 'Datasets', and 'Citations' are visible at the top.

The image shows the IHSN logo, which consists of four interlocking circles in green, blue, yellow, and grey. To the right of the logo is a dark blue banner with the text 'INTERNATIONAL HOUSEHOLD SURVEY NETWORK' in white. Below the banner, the text 'Dissemination of Microdata Files' is written in a bold, dark blue font, followed by 'Principles, Procedures and Practices' in a regular, dark blue font.

# ADP: bringing solutions to countries

- More survey data accessible and used
  - ✓ *40 national survey catalogues established*
  - ✓ *Use monitored*
  - ✓ *Indicators re-calculated (Nigeria)*
- More national capacity on survey data management
  - ✓ *66 countries received TA*
  - ✓ *20 more countries involved in regional activities*
    - *Joint workshops with FAO*
- Survey methods / instruments improved
  - ✓ *pilot phase with CSA-Ethiopia*



# focus: the importance of metadata

## 1. For discovering data

- You and your users will know about data availability by providing searchable data catalogs

## 2. For making data usable

- Users need to fully understand the data: why, by whom, when, and how they were collected, processed and disseminated

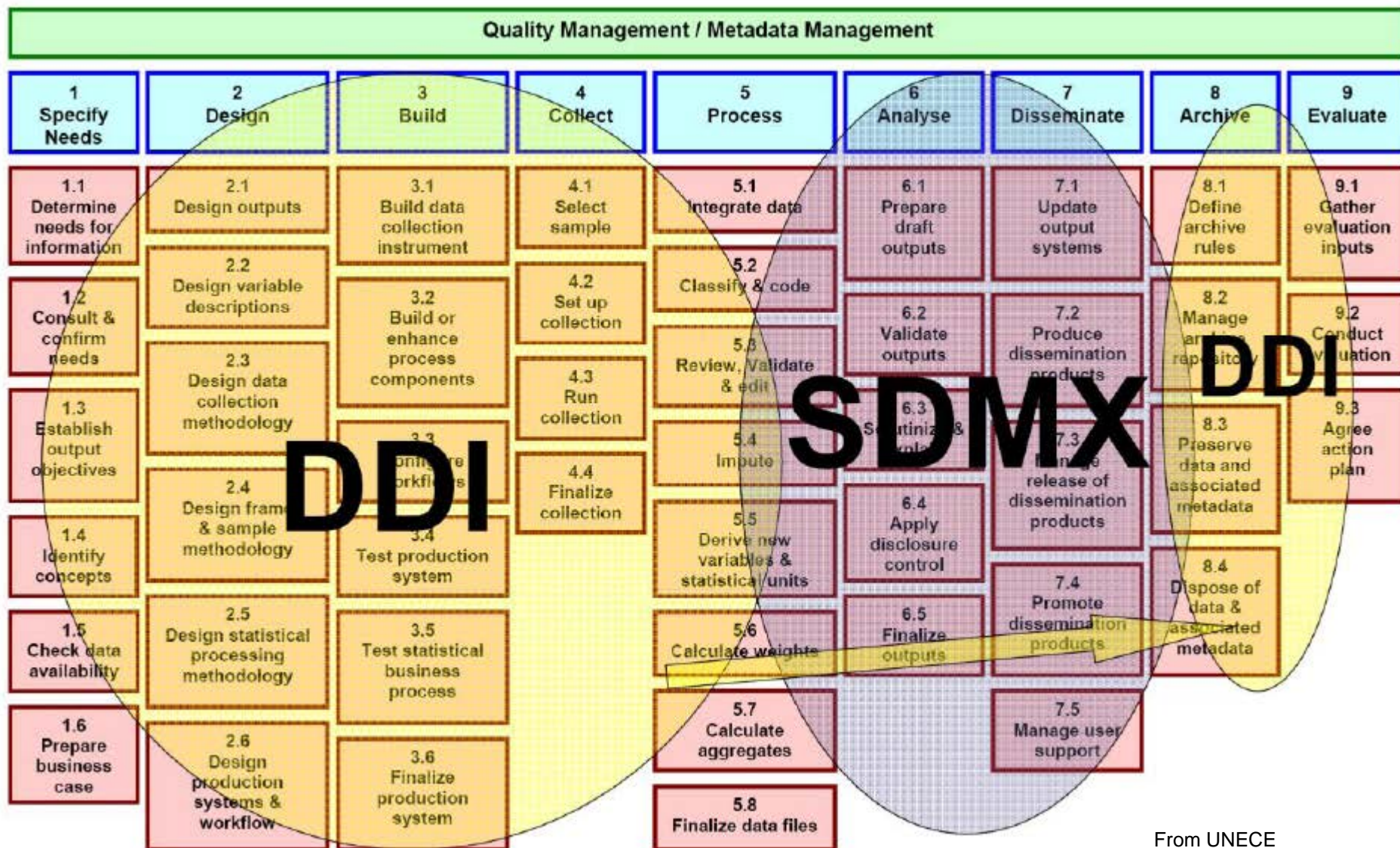
## 3. For assessing data quality

=> metadata standards for microdata: DDI, etc.





# GSBPM, DDI, SDMX



# focus: IHSN toolkit

1. IHSN Microdata Management Toolkit (DDI metadata editor)
  2. NADA: on line searchable survey cataloguing system
  3. IHSN Microdata Anonymization Toolbox (R-based sdcMicro)
- Risk measurement / risk reduction / information loss

**Metadata Editor v1.0 Beta 5**

File Edit Documentation Variables Data Publishing Tools Help

Projects:

- Ethiopia Water Sanitation 2004
- Madagascar MICS 2000
- Morocco WHS 2002
- MICS Popstan 2000
- Document Description
- Study Description
- Identification
- Version
- Overview
- Abstract
- Kind of Data
- Unit of Analysis
- Scope
- Coverage
- Producers and Sponsors
- Sampling
- Data Collection
  - Dates of Collection
  - Time Periods
  - Mode of Data Collection
  - Notes on Data Collection
  - Questionnaires
  - Data Collectors
  - Supervision

**Variables**

Number	Name	Label	Width	StartCol	EndCol	Record	Decimals
v66	hi10c	Have Car/ Jeep / Van	1	*	*	*	0
v67	hi10d	Have Motorized banca / boat	1	*	*	*	0
v68	hi10e	Have Tractor	1	*	*	*	0
v69	hi9	Number of rooms in dwelling	2	*	*	*	0
v70	hi8	Main material of the floor	1	*	*	*	0
v71	hi8a	Main material of the roof	1	*	*	*	0
v72	hi8b	Main material of the walls	1	*	*	*	0
v73	si1	Type of salt for cooking	1	*	*	*	0
v74	si1a	Do you use the same for table salt	1	*	*	*	0
v75	si1b	Type of salt for cooking	1	*	*	*	0
v76	himem		2	*	*	*	0
v77	si1c	Type of salt for cooking	1	*	*	*	0

**Variable Description:**

Categories:

- 1 - Iodized with
- 2 - Not iodized (r

**Documentation**

Options:

- ☒ Include Weighted Statistics
- ☒ Include Frequencies
- ☒ List Missing At End

Sorting of Frequencies: Value (ascending)

Summary Statistics Options:

- ☒ Include Valid
- ☒ Include Min
- ☒ Include Max
- ☐ Include Mean
- ☐ Include Weighted Mean
- ☐ Include StdDev
- ☐ Include Weighted StdDev

**Frequencies:**

Value	Label	N	%
1	Iodized with color	598	23.8%
2	Not iodized (no color)	1815	
3	No salt in home	29	1.2%
4	Salt not tested	74	2.9%
7	Missing	0	0%

**Summary Statistics:**

Type	Value
Valid	2516
Min	1
Max	4

## IHSN Central Survey Catalog

[About](#) [Catalog](#) [Citations](#) [Contribute](#) [Acknowledgments](#) [Help](#)

[Home](#) > [Data catalog](#)

## Data Catalog

Filter by Country

Show studies conducted between 1955 and 2011

Find  in study

Find  in variable

Variable description includes: ☐ Name ☐ Label ☐ Question ☐ Classification

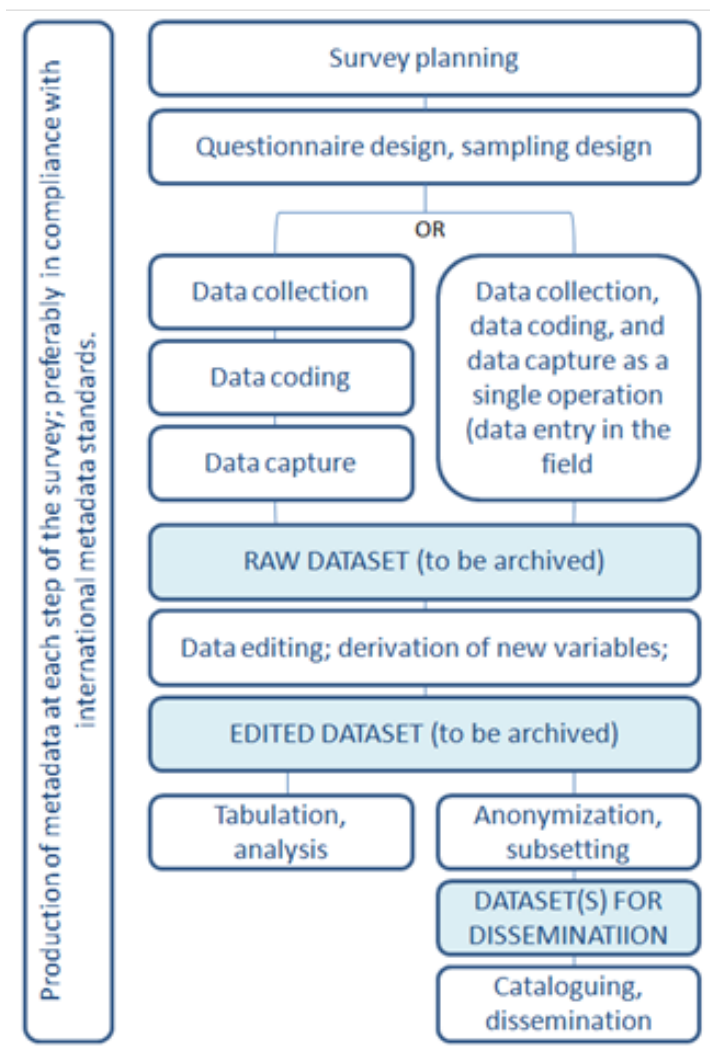
Sort results by: [Country](#) | [Year](#) | [Title](#)

Found 807 studies out of 807

[Afghanistan - Enterprise Survey 2008](#)

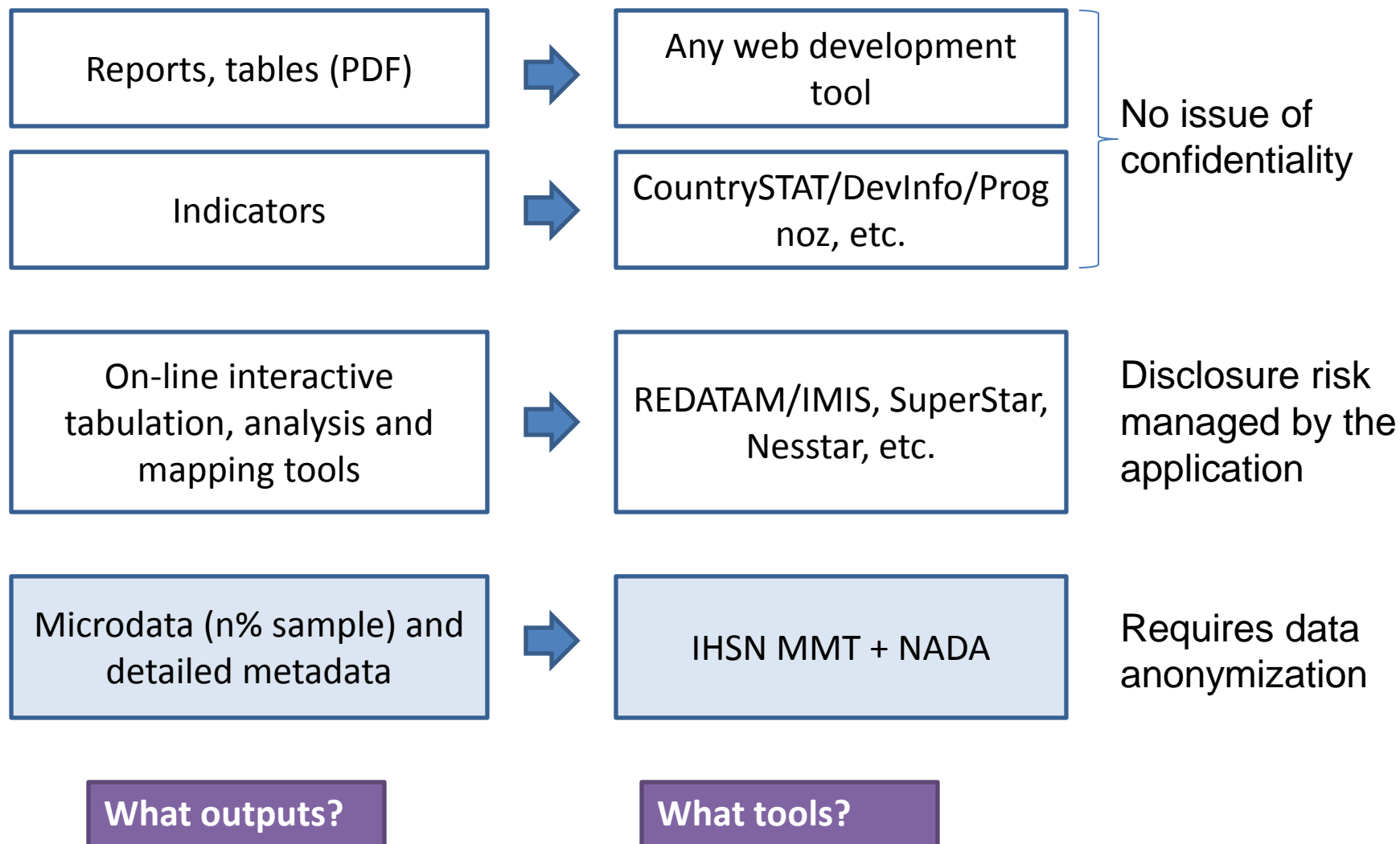
By: World Bank

# focus: confidentiality



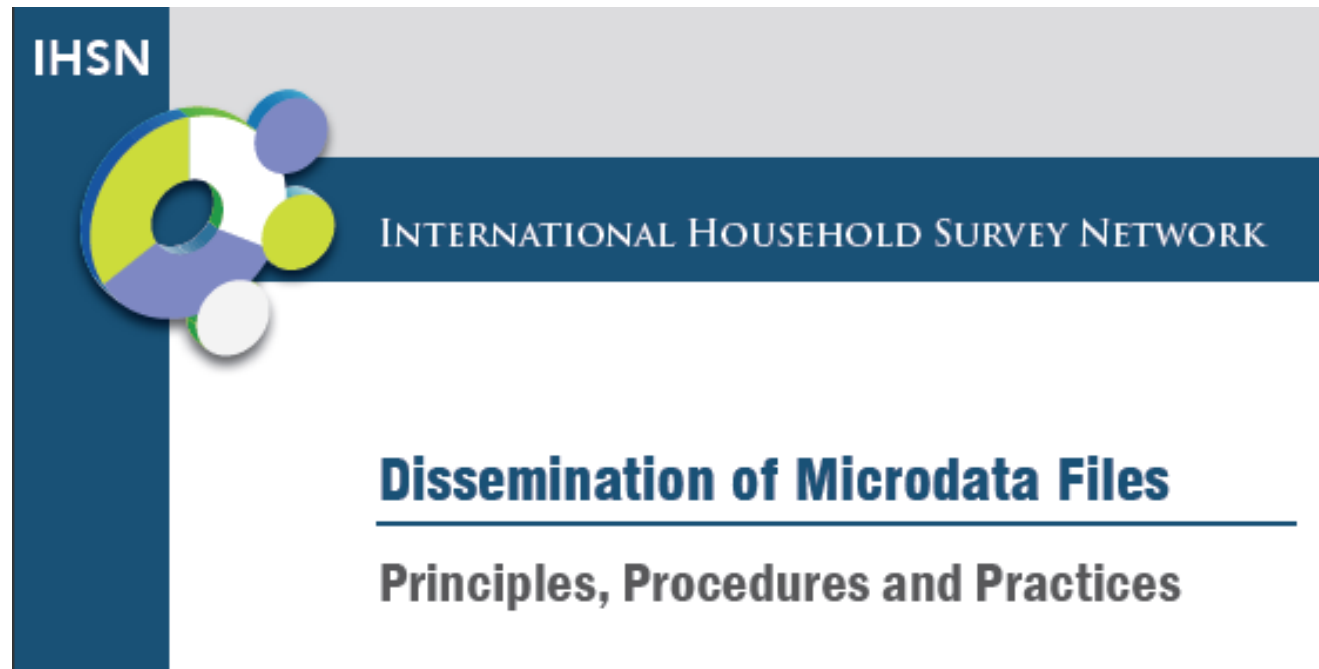
- Microdata does not mean confidential data
- Different access modes
  - Remote execution
  - On-site
  - File distribution
- Screen users and usage
- Progressive approach

# focus: confidentiality



# Access policy: terms of use + platform

Formulating an **access policy** and procedures





## Search by Keyword

in study description

in variable description

**Search** Reset

## Filter by Year


Show studies conducted between

1995 ▼ and 2012 ▼

## Filter by Data Access

☒ Any

☐  Licensed data files

☐  Data not available

## Filter by Collection 1

☒ Any

[View / Select More](#)

## Central Data Catalog

About

**Datasets**

Found **21** studies out of **21**



Sort results by: Year | Title ▲ | Popularity

Showing 1-15 of 21 studies

**1** 2 Next »



### Annual Household Survey 2003 ສຳຫລວດຄົວເຮືອນ ປີ 2003 2003

By: National Statistical Center (NSC) - Committee for Planning and Investment

Created on: Jun 03, 2012 Last modified: Dec 14, 2012 Views: 11829 Downloads: 1171



### Annual Household Survey 2004 2004

By: National Statistical Center (NSC) - Committee for Planning and Investment

Created on: Jun 03, 2012 Last modified: Aug 21, 2012 Views: 11829 Downloads: 1171



### Census of Population and Housing 1995

By: Department of Statistics - Ministry of Planning and Investment

**LAO PDR**

# LAO Statistical Bureau

<http://www.lsb.gov.la/nada/index.php/home>

The screenshot shows a web browser window displaying the Lao Statistics Bureau National Data Archive website. The browser's address bar shows the URL <http://www.lsb.gov.la/nada/index.php/home>. The website features a header with the Lao Statistics Bureau logo and the text "Lao Statistics Bureau National Data Archive". Below the header is a navigation menu with links: LSB Home, Home, About LNADA, Policies, Data Catalog, Mission, Activities, and Contact Us. The main content area includes a welcome message, a statistics overview, and a list of latest additions and most popular studies.

**ສາທາລະນະລາຍ**  
LAO STATISTICS BUREAU

**Lao Statistics Bureau**  
*National Data Archive*

LSB Home Home About LNADA Policies Data Catalog Mission Activities Contact Us

Home

Welcome to Lao Statistics Bureau (LSB);  
National Data Archive!

Welcome to the online catalogue of surveys of the Lao Statistics Bureau (LSB). This is an initiative to establish a web-base National Data Archive in Laos. It is developed to store and retrieve statistical data of various surveys and censuses conducted by Lao Statistics Bureau.

Stats

As of February 19, 2014  
the Library contains

**21 surveys**  
**6,295 variables**

Central Catalog

Latest additions

Lao People's Democratic Republic - Lao Agriculture Census 2010-2011  
Jun 11, 2012

Lao People's Democratic Republic - Annual Household Survey 2004  
Jun 03, 2012

Lao People's Democratic Republic - Annual Household Survey 2003 ສຳຫລວດຄົວເຮືອນ ປີ 2003

Most popular studies

Lao Expenditure and Consumption Survey 2007-2008  
LAO People's Democratic Republic

Establishment and Enterprise Survey 2005  
Lao People's Democratic Republic

Enterprise Survey 2006  
Lao People's Democratic Republic

[www.lsb.gov.la/nada/index.php/catalog/21/data\\_dictionary](http://www.lsb.gov.la/nada/index.php/catalog/21/data_dictionary)

Home > Central Data Catalog

  SHARE  

## Central Data Catalog

About

Datasets

Found 33 studies out of 33



Sort results by: Year | Title ▲ | Popularity

Showing 1-15 of 33 studies

1 2 3 Next »



### Aquaculture Production Survey 2009

By: Bureau of Agricultural Statistics (BAS), Department of Agriculture

Created on: Jan 20, 2011 Last modified: Jan 20, 2011 Views: 12840 Downloads: 8988



### Avian Population Survey in the Philippines 2006, Inventory of Avian Species

By: Bureau of Agricultural (BAS) - Department of Agriculture

Created on: Jan 20, 2011 Last modified: Nov 13, 2012 Views: 8960 Downloads: 3602

Search by Keyword 

in study description

in variable description

Search

Reset

Filter by Year

Show studies conducted between

2003 ▼

and

2011 ▼

Filter by Collection 

☒ Any

[View / Select More](#)

PHI, MoA



# सांख्यिकी और कार्यक्रम कार्यान्वयन मंत्रालय Ministry of Statistics & Programme Implementation

## Micro Data Archive

[Microdata Catalog](#)[Data Access](#)[National Data Warehouse](#)[Home](#) > [Data catalog](#)

## Data Catalog



Show studies conducted between 1987 and 2010

Find 

in study description

Find 

in variable description

Variable description includes: ☐ Name ☐ Label ☐ Question ☐ Classification[Search](#)[Reset](#)Sort results by: [Year](#) | [Title](#)

Found 44 studies out of 44

Page 1 of 3

### Annual Survey of Industries 1997-98

By: Central Statistics Office (Industrial Statistics Wing), MOSPI, Government of India

### Annual Survey of Industries 1998-99

By: Central Statistics Office (Industrial Statistics Wing), MOSPI, Government of India

### Annual Survey of Industries 1999-2000

By: Central Statistics Office (Industrial Statistics Wing), MOSPI, Government of India

### Annual Survey of Industries 2000-01

By: Central Statistics Office (Industrial Statistics Wing), MOSPI, Government of India

**INDIA**





## Data Catalog

Filter by Country

Find  in study description

Find  in variable description

Variable description includes: ☒ Name ☒ Label ☒ Question ☒ Classification

Sort results by: **Country** | Year | Title

Found 4 studies out of 11

Page 1 of 1

### Vanuatu - Vanuatu National Population and Housing Census, Pilot Census 2008

Vanuatu National Statistics Office, Vanuatu Government, DDI-VAN-VNSO-NPHC-v1

[Browse metadata](#) [Access policy](#)

ddi

### Vanuatu - Vanuatu Agriculture Census 2006-2008

Vanuatu National Statistics Office, Vanuatu Government, DDI-VAN-VNSO-AGRCENSUS\_2006\_V01

[Browse metadata](#) [Access policy](#)

ddi

### Vanuatu - Vanuatu Household Income and Expenditure Survey 2006

Vanuatu National Statistics Office, Vanuatu Government, VUT-VNSO-HIES-2006-V2.0

[Browse metadata](#) [Access policy](#)

ddi

### Vanuatu - Vanuatu Multiple Indicators Cluster Survey 2007

Ministry of Health, Government of Vanuatu, Ministry of Health, VUT-MICS-2007-1.0

[Browse metadata](#) [Access policy](#)

ddi

## Site Navigation

- Home
- New Releases
  - Trades Summary
  - Consumer Price Index (CPI)
  - Tourism
  - Quarterly Statistical Indicators
- Current Surveys
  - Census 2009
  - Census 2009 Tables
  - HIES 2010
- Data Catalog

## LIVE POPULATION OF VANUATU

Total Live\* Population of Vanuatu at 20:31:07

257,137

Annual Figures:

Births: 7,911

Deaths: 1,344

VANUATU

Population Clock Outside VNSO Building

# A possible role for FAO

- We are committed to serve our clients: data users (internal and external) and data producers (internal and external)
  - Provision of financial and technical assistance to NSOs and MoAs
  - Facilitate access to microdata, central repository
- Leveraging on:
  - Global Strategy
  - World Census of Agriculture
  - Field projects
  - Membership in IHSN

# Thank you !

more?

[francois.fonteneau@fao.org](mailto:francois.fonteneau@fao.org)

[www.ihsn.org](http://www.ihsn.org)

# Time is ripe for action

- “The fact that others are starting to create output we used to have a monopoly on, means that we are losing relevance. Does this mean that we be defensive about it and try to maintain our foothold by legislation etc.? We don't think so. We propose to actively pursue a course in which we use our strengths and resources to create the statistical outputs that will give our stakeholders a clear perspective on what is happening in the world today.”  
(CES High-Level Group for the Modernisation of Statistical Production and Services,  
<http://www1.unece.org/stat/platform/display/hlgbas/Strategic+vision+of+the+HLG> )
- Lack of comparability between sources, lack of transparency = issue in the MDG measurement process.
  - Shaping the post-2015 agenda : need for greater access to sources, incl microdata
- DHS, MICS surveys or the IPUMS initiative provide a strong evidence of the large demand for Public-use microdatasets, and that a culture of data sharing and collaboration should result in a wealth of new knowledge.



# *how some NSOs describe their role on disseminating microdata*

- *Australia: “Access to microdata assists and encourages informed decision making through enabling wider use of ABS data for social and economic research and analysis. [...] An inability to meet these demands will increasingly become a disadvantage to ABS core business, the relevance of the ABS and ultimately to the coherence of the NSS. This, along with a number of other drivers for change including the growing risk of identification, has led the ABS to propose a new strategy for accessing ABS microdata into the future.” (ABS, <http://www.abs.gov.au/>)*
- *Ireland: “The primary objective of the CSO in providing access to microdata is to support the research community and to ensure that maximum usage is made of the data collected by the CSO. This approach supports the move towards evidence-based policy-making, has the potential to reduce the cost of research and also helps to avoid duplicate data collections.” (CSO - <http://www.cso.ie/>).*
- *Sri Lanka: “The mission of the National Microdata Archive of Sri Lanka is to satisfy the data needs of the National and International research community who are striving hard to find answers to the socioeconomic problems across the world. Backed by the Department of Census and Statistics – the central statistical agency in Sri Lanka, LankaDatta disseminates relevant, reliable and up-to-date statistical information being produced by the Agencies in the National Statistical System of Sri Lanka while preserving strict confidentiality of the respondents.” (Department of Census and Statistics, Sri Lanka <http://statistics.sltidc.lk/>)*