Food and Agriculture Organization of the United Nations

The Agricultural Integrated Surveys Programme
AGRISurvey

Statistical confidentiality of agricultural surveys in the context of the AGRISurvey project

SESSION 4

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The AGRIS model

AGRIS: Survey model developed by the Global Strategy to Improve Agricultural and Rural Statistics (**GSARS**) of the Food and Agriculture Organization of the UN (**FAO**).

- Farm-based modular 10-year survey model:
  - **Core model** on agricultural production administered every year;
  - **Rotating modules** on other dimensions of agriculture (technical, economic, environmental and social) administered at a lower frequency.

AGRIS	Years	1	2	3	4	5	6	7	8	9	10
CORE MODULE	Holding roster	•	•	•	•	•	•	•	•	•	•
	Crop/Livestock production	•	•	•	•	•	•	•	•	•	•
	Key holding characteristics	•	•	•	•	•	•	•	•	•	•
Rotating Module 1	Economy	•		•		•		•		•	
Rotating Module 2	Labour		•				•				
Rotating Module 3	Machinery, equipment, assets and decisions					•					
Rotating Module 4	Production methods and environment				•				•		

The AGRIS model

- Objective: improving the production and dissemination of microdata on agriculture
- Covers agricultural holdings in the household and non-household (commercial farms) sectors
- Synchronized with the agricultural census
- Recommendations on sampling strategies are provided
- Linked with the SDG monitoring agenda

The AGRISurvey project

In 2016, FAO started to implement the AGRIS model in partner countries through the AGRISurvey project.

- 12 countries included so far: **Armenia**, Cambodia, Costa Rica, Ecuador, Georgia, Ghana, Kazakhstan, Kenya, Nepal, **Senegal**, **Uganda**, Uruguay.

- **The AGRISurvey project provides:**
  - Technical assistance
  - Statistical trainings
  - Financial support

  to countries wanting to develop or improve their agricultural surveys

The adopted approach is tailored to the specific country context

The AGRISurvey project

Includes also a **Data Dissemination** component:

- Dissemination of aggregate/tabular data
- Dissemination of microdata from agricultural censuses and surveys
- Assessment/amendment of data dissemination policy

Anonymization of agricultural surveys

- Little is available in the literature:
  - **Holdings in the household sector:** similar characteristics to other household surveys (e.g. household budget surveys, multipurpose household surveys).
  - **Commercial agricultural holdings:** similar characteristics to business surveys.

Anonymization of agricultural surveys

- Little is available on country practice:
  - **Istat, Italian NSO:** 2005 Italian Farm Structure Survey;
  - **World Bank:** LSMS-ISA microdata disseminated as SUF or PUF (depending on the country);
  - Some of the AGRISurvey partner countries are already disseminating samples of their Agricultural Census microdata as SUF or PUF (e.g. Ecuador, Armenia).

Anonymization of agricultural surveys

- Challenges specific to agricultural microdata from AGRIS surveys:
  - Only two realistic release types: SUF and PUF
  - Large households and commercial farms
  - Modular design of AGRIS (rotating modules attached to an annual core module)
  - GPS coordinates
  - Partially rotating sample

Country practice - Senegal

- EAA 2017/18 conducted by DAPSA
- Two visits: post-planting and post-harvest
- Microdata released as SUF
- Anonymization measures:
  - Direct identifiers and GPS coordinates removed
  - Geo variables kept at level of department
  - Recoding and local suppression to achieve 2-anonymity
  - PRAM

Country practice - Uganda

- AAS 2018 conducted by UBOS in collaboration with the FAO
- Four visits per year (two visits per agricultural season: Post-Planting and Post-Harvesting)
- Revision of dissemination policy ongoing
- Delays in survey implementation
- Initial assessment and drafting of disclosure scenarios completed

Future plans

- **50by2030 Initiative** - AGRISurvey project implemented in 50 countries by 2030
- Need for research on including **large-scale commercial farms** and **GPS coordinates** in microdata
- Exchange with other NSOs, institutions on dissemination of agricultural data

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Thank you!