Item 6

Integrating Agriculture into National Statistical System

Hem Raj Regmi, Statistician

Orientation Programme for the Implementation of the Global Strategy to Improve Agricultural and Rural Statistics in selected countries

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Outline of Presentation

- Why do we need integration?
- NSDS and SPARS (some observations)
- Coordination and Cooperation/collaboration
- Four Levels of integration
  - Integration of coverages
  - Integration of contents
  - Integration of cycles of implementation
  - Integration of budgets and financing
- Conclusions
What do we mean by Integration?

- Integration of Agriculture into the National Statistical System
  - Agriculture is part of the overall statistics collection process
  - Use of a master sample frame for agriculture through AGRIS module
  - Use of standard concepts, definitions and classifications
  - Integration of the Population Census and Agriculture Census

- Integration of the survey process
  - Sample design, questionnaires, methods of collection, analysis and estimation

- Integration at dissemination phase

Approaches to Integration

- **Ex Post** – try to link data from different surveys
  - E.g. link household data from Population Census to holding data from Agricultural Census
    - Very difficult if not planned in advance (one-to-many and many-to-One mapping)

- **Ex Ante** – plan relevant surveys so that linking variables are well defined
  - E.g. identify households/ag. holdings in Population Census to give a frame for household selection of Ag Census (list of agriculture households)
    - Update this frame periodically to serve as master sample frame
    - All agriculture surveys are based on this frame: AGRIS
    - Business Register to serve as institutional section of ag. census
    - Use of pre-defined multi-stage sampling reduces the need for fieldwork for updating the frame
Why do we need Integration?

• Integration of agricultural statistics into national statistical systems is the second pillar of the Global Strategy

• Integration will enable
  – Production of coherent and comparable data
    • Through the use of standards, MSF, AGRIS
  – In-depth data analysis across sectors/collections
    • E.g. crop and livestock production are often drawn from separate collections. This provides no basis for analyzing characteristics of farms that produce both crops and livestock, or for comparing them to farms that specialize in one or the other
    • Social – economic – environment e.g. livelihood of farmers, are the small farms environmentally friendly, or the big farms?

• Integration will
  – Avoid duplication of effort
  – Prevent the release of conflicting statistics; different values from different source on the same variable.
  – Ensure the best use of resources; human, financial etc
  – Reduce the burden of response
  – Enable agriculture to be an integral part of statistical planning and budgeting processes

NSDS and SPARS

• SPARS guidelines follow principles and structure of NSDS

• Integration is to be addressed during the Launching phase of the SPARS process.

  ▪ Success of integration is largely dependent on:
    ▪ the existence of a NSDS,
    ▪ the status of the institutional environment for the production of statistics
    ▪ the coverage of national development policies.

  ▪ The decision to integrate SPARS and NSDS is to be made in collaboration with the sub-sectors, the NSDS stakeholders and the users to maximize coherence and efficiency;

  ▪ There is no one-size-fits-all model of integration!

  ▪ It is recommended to align the SPARS with:
    ▪ the cycle of the NSDS;
    ▪ the cycles of the main development and agricultural policies
Coordination and Cooperation

- Many government agencies produce and use agricultural data
  - National Statistics Office NSO for agriculture census/survey
  - Ministry/Department of Agriculture for current crop statistics
  - Livestock Departments for livestock statistics etc
  - Ministry of Forestry for forestry related surveys
  - Department of fisheries for fisheries statistics etc
- Sometimes there is cooperation and use of common standards, etc, but mostly not
- All these agencies will need to work closely together during the SPARS process
- Integration of agriculture into the National Statistical System will require a high level of cooperation and commitment by a range of agencies
  - Can be achieved through establishment of coordinating bodies SC and technical working groups TWGs to avoid overlapping efforts
  - The Global Strategy process will assist this

Integration of coverages
Possible approaches according to NSDS status

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<th>NSDS</th>
<th>SPARS</th>
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| **In implementation** | - SPARS to be designed analysing the existing coverage of agricultural sector in NSDS
  - Have a SPARS not only aligned with the NSDS but also with the national policies.
  - NSDS governance and institutional arrangements to be taken into account |
| **In elaboration**    | - Ideal situation for better integration
  - Consultative and design processes to be taken in harmony (simultaneously or sequentially)
  - SPARS as a corner stone of the NSDS |
| **Not existing or not planned** | - Independent design but since SPARS approach is aligned with NSDS, it guarantees a good future integration |
When NSDS is in place

- In reality the coverages of SPARS and agricultural part of NSDS are systematically different!
- How to coordinate the activities which are in common... and fund them? And the ones which are not in common?

When NSDS is in preparation (or no NSDS in place): **bottom-up approach?**

SPARS will be a building-block of the NSDS
When NSDS is in preparation (or no NSDS in place): **bottom-up approach?**

- Assuming that the entire SPARS will be integrated into the NSDS
- But a resulting NSDS ...with a larger scope!

Do we have an issue? **Yes**
But not a problem for SPARS!

- The problems fall on the NSDS process: **incomplete coverage of top-down approach**
- *In the two cases the SPARS remain the same*

Integration of contents

- **Master sampling frames: AGRIS modules**
- **Calendar of surveys**
  - Use of standard concepts, definitions and classifications
- **Consistent collection processes**
  - Sample design, questionnaires, methods of collection, analysis, estimation and dissemination
- **Integration of the Population Census and Agriculture Census**
- **Agricultural modules in household surveys**
Master Sample Frame

• Master sample frame should be the source for all samples for surveys of agricultural holdings, farm households and rural non-farm households
  – Samples can be designed so that data can be analyzed across surveys
  – Different institutions should be able to access the master sample for survey purposes

• Scope of master sample frame depends on
  – Number of surveys for which it is to be used
  – Main stratification variables used for planning the surveys

Developing an Integrated Survey Framework

• It includes
  – Sample design, Questionnaire, Data collection methods, Analysis and estimation
  – Timing and frequency of data collection are most important for agricultural statistics
  – Different production cycles (crops, livestock, fisheries)

• Identify core data requirements
  – Production data
  – Economic data (input/output on the holding)
  – How use of fertilizers, chemicals, tillage methods etc. impact environment
  – Social well being of farms and rural households

• Decide on the census/survey instruments
• Single purpose or multi purpose
• Need for longitudinal data
Integration of cycles of implementation

- **10-year SPARS** (Census cycles, 2 cycles of NSDS, better to invest on design every 10 years and have a regular mechanism of review)

- **Initial SPARS might be shorter** to fit in with the next cycle of NSDS

- **Alignment with national policies** is also important!

- Can be a puzzle, to be negotiated and validated at high-level according to priorities. A **minimum alignment with NSDS** and the **most important agricultural/rural policies** at country level
Who will take on board the budgets and funding of activities at the intersection of NSDS and SPARS? to be carefully discussed!

Summary

• Integration of agriculture into the National Statistical System will be achieved through
  – Implementation of a master sample frame with AGRIS
  – An integrated survey framework
  – An integrated database

• Countries will need to
  – Review their current governance arrangements
  – Make changes to meet the challenges of coordination
  – Ensure that the statistical system is sustainable
Thank You