Conceptual Framework for the Collection of Agricultural and Rural Statistics


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Agriculture

A broad definition:
Rearing (growing, taking care and helping propagation) of *domesticated plants and animals*.

Includes:
- Cultivation (of crops, plantation, orchards & cultivated forest)
- Animal husbandry
- Fishery
Agriculture – Standard Definition

• By activity: ISIC Rev. 4 [p. 59]: Section A
  – Group 011: cultivation of crops, market gardening, and horticulture.
  – Group 012: “farming of animals,” and
  – Group 013: mixed cultivation & animal farming
  This a narrow definition by ‘activity’.

• By commodity: CPC

By activity: broad definition also includes:
  – Agroforestry and aquaculture
Food, Agricultural and Rural Sector
Role of agriculture and rural sector

- **Resource function**: Provider of food, fodder, fiber (primary)
- Raw material for industry (secondary)
- Market for secondary and tertiary products
- Employment: income and entitlements
- Environmental protection
  - two way relationship
Food & Agricultural System

- **Factor Resources:**
  - Land,
  - Labour,
  - Finance (credit) and
  - Technological know how

- **Other resources:**
  - Infrastructure – irrigation, electricity supply, roads, communication etc.,
  - Machinery & livestock

- **Climate**

- **Inputs:** seed, feed, fuel / electricity

- **Market:** distribution, food chain, prices

- **Food stocks,** post harvest losses and food wastage
Exogenous factors

- Climate change:
  - Weather: Risk and limitation on choice
  - Soil: Constraints on choice of crop
  - Water: droughts and floods

- National Values (self-sufficiency) and Development Goals (industry or agriculture)

- World Prices: Volatility

- Too many players
Sources and Constituents of Agricultural Statistics

Sources – broad categories

- Census – agricultural & livestock
- Agricultural Surveys
- Administrative sources
- Business Sources
Constituents of Agricultural Statistics

Constituents of Agriculture Statistics

- **Structure of agriculture**: Census (at least decadal)
- **Production & consumption**: Current surveys (annual or seasonal)
- **Cost of cultivation**: use of inputs, agricultural labour wage rates
- **Agro-processing**
- **Market Information**
  - **Prices**: farm gate, wholesale, retail, indices, border
  - Market arrivals, quantities transacted, international trade
Constituents of Agricultural Statistics

Constituents of Agriculture Statistics

- Land use and use of other natural resources
- Infrastructure
- Finance – rural / agricultural credit
- Technology and stock of resources: agricultural machinery and equipments
- Analytical / derived statistics:
  - Food balance sheets and food accounting matrices
  - Number of under-nourished & other Development indicators
- Climate:
Conceptual Framework

• Global Strategy aims at rebuilding Agricultural statistic systems based on good understanding of the user requirements;

• Data needs analysis led to a comprehensive conceptual framework for agricultural statistics.
Conceptual Framework

- Link between Economic, Social, Environment dimension of the agriculture
- Provides a ‘roadmap’ for the development of Agr. statistics.
- Facilitates the integration, and therefore the cost-effectiveness and analytical capability of statistics
Conceptual Framework: Scope and coverage of agricultural statistics

- **Scope**: should cover not only economic but also social and environmental dimensions;

- **Data Items**: linking items from different dimensions

- **Organization**: SNA for the economic statistics; SEEA for environmental statistics; Social statistics? Wye Handbook?
**Conceptual Framework:** Scope and coverage of agricultural statistics

- **Coverage:** all activities within the scope of agricultural statistics without any cut-offs on the basis of size, importance, location etc.

- **Units:** economic statistics = farm business; social statistics = household; environmental statistics = land parcel.

- **Classifications:** ISIC = agricultural activities; CPC = agricultural commodities; ISCO = agricultural occupations; Classifications of land + forest cover and land use
Conceptual Framework: Scope and coverage of agricultural statistics

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Definition of Quality

- Survey quality is not determined by just survey error - data accuracy.
- The quality of statistical data depends on
  - Relevance
  - Accuracy & reliability
  - Timeliness & punctuality,
  - Coherence and comparability and
  - Accessibility and Clarity (interpretability).
Data Quality Issues

The ABS DATA Quality Framework consists of six components: Institutional Environment, Relevance, Timeliness, Accuracy, Coherence, and Interpretability. Each component is described as follows:

- **Institutional Environment**: The institutional and organisational factors which may impact on the effectiveness and credibility of the agency producing the statistics.
- **Relevance**: The degree to which information meets the needs of users.
- **Timeliness**: The delay between the reference period and the release of the information.
- **Accuracy**: The degree to which the information correctly describes the phenomena being measured.
- **Coherence**: The degree to which the information can be brought together with other information, and over time.
- **Interpretability**: The availability of supplementary information necessary to interpret the statistical information.
Thanks