

National Accounting Systems, Agricultural Statistics for Policy Analysis

**Workshop on Measuring Sustainable Agriculture, Food Security and
Poverty Alleviation for enhancing Accountability in the Post 2015
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Content

- Introduction - Food & Agricultural Sector
- Data Sources and Constituents of Agricultural Statistics
- Emerging Issues and data quality
- Global Strategy

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

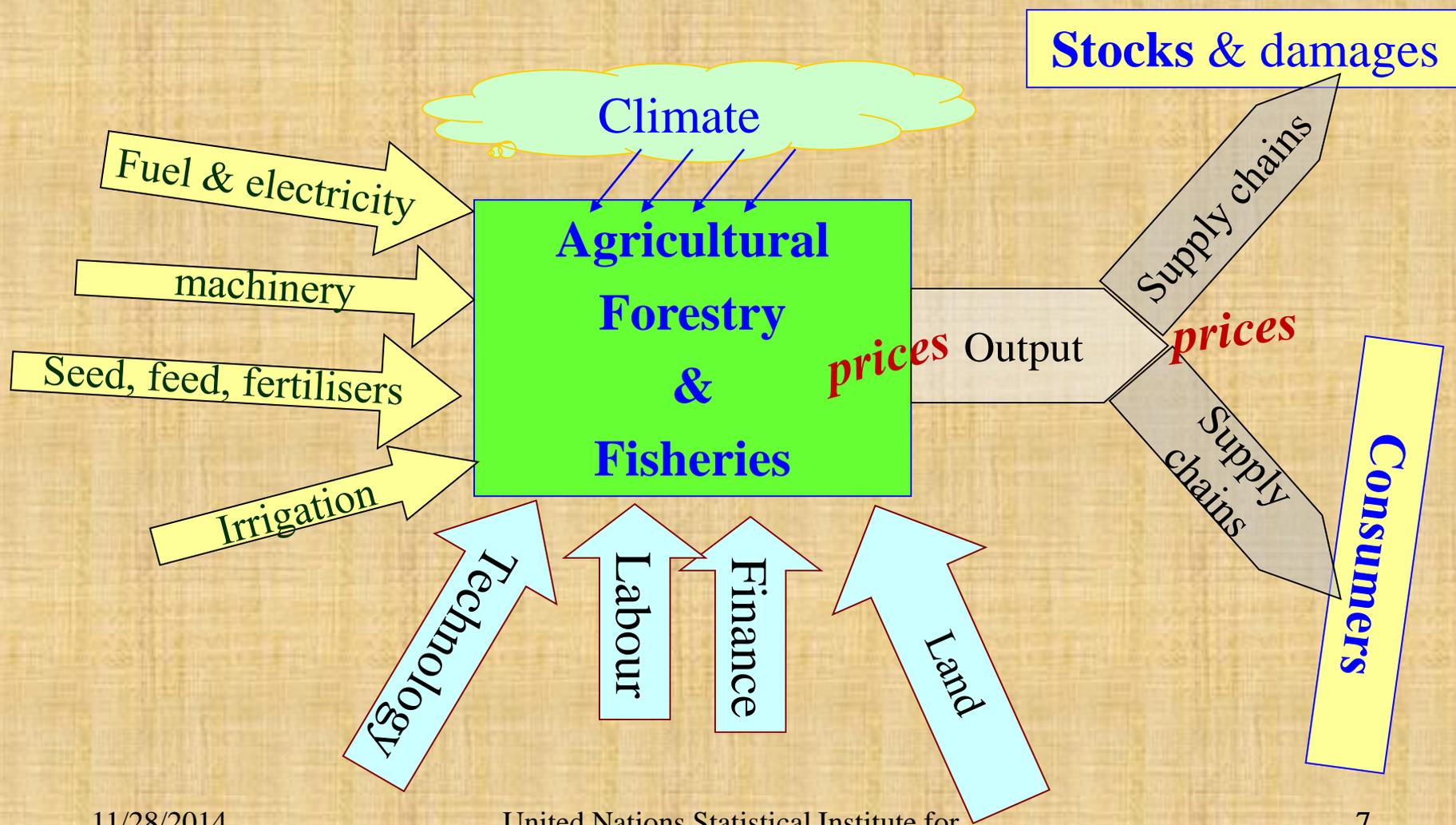
Food, Agricultural and Rural Sector

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

Scope – Agricultural Statistics

Food and Agriculture System



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 – broad categories

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

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 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:

Challenges:
**Emerging Issues and declining data
quality**

Agricultural Statistics - Main Challenges

- Basic data requirements are not met, especially in developing countries
- Agricultural statistics not integrated in the National Statistical System
- Emerging data needs

Declining Data Quality

- Basic data requirements are not met, especially in developing countries
 - countries' capacity in agricultural statistics declined since early '80s
 - declining number of countries reporting basic production
 - declining resources allocated to agricultural statistics by countries and development partners (low priority)

Agriculture data - Quality & availability

- Results are not timely
 - Lack of timeliness of production data was a contributor to food price crisis
- Data for key commodities based on high levels of imputation
- Data sets are production oriented
 - No data on numbers of farms, agricultural households, rural households, and their characteristics
 - No capability to link the welfare of rural and agricultural households with agricultural production, and land use.

National Statistical System

- Agricultural statistics not integrated in the National Statistical System
 - lack of coordination between NSO & Min. of Agriculture
 - duplicative efforts-conflicting numbers
 - National Statistical Plans do not cover agricultural stat.

Emerging Issues

- **Undernourishment**
 - In 2010-12 there were 563 million people in Asia suffering from undernourishment
 - Equates to 14% of the population (MDG target is 11.6% by 2015)
- **Food price stability**
 - The food price spike in mid-2008, and its devastating impact on the poor, amplified the need to reinvest in agriculture in developing countries

Emerging Issues

- **Poverty Reduction**
 - 2.5 billion people depend directly on agriculture
 - 1.5 billion live in small farm households (of which 85% < 2ha)
 - 75% of poor are rural and the majority will be rural to about 2040
- **Environmental sustainability**
 - Agriculture uses 70-75% of fresh water resources
 - Agriculture uses 40% of land area
 - Agriculture generates 25-30% of greenhouse gas emissions

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



Global Strategy

Global Strategy

- **Global Strategy to improve agricultural statistics** provides a framework for national and international statistical systems to produce and to apply the basic data and information needed to guide decision making in the twenty-first century.
- The Global Strategy is developed by the FAO thru' consultation with national and international statistical organizations
- Refer:
http://www.fao.org/fileadmin/templates/ess/documents/meetings_and_workshops/ICAS5/Ag_Statistics_Strategy_Final.pdf

Three Pillars of the Strategy

The strategy is founded on three pillars:

- **First pillar:** determining a minimum set of core data
- **Second pillar:** integrating agricultural statistics into NSS -
by implementing a set of methodologies like
 - development of a **master sample frame** for agriculture,
 - implementation of an **integrated survey framework**, and
 - making the results available in a data management system – in form of an **integrated database**.
- **Third pillar:** foundation that will provide the sustainability of the agricultural statistics system through governance and statistical capacity building.

Thanks