

## Fourth Meeting of the UNCEEA 24-26 June 2009, UN Headquarters, New York

## Linking Agricultural Statistics to Environmental Statistics

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#### **Independent External Evaluations of FAO**

- FAO has recently gone through 2 Independent External Evaluations that have a bearing on FAO statistical programme:
  - IEE (2007): "the time has come for a total re-examination of the statistical needs for the 21st century and how they can be met."
  - IE of FAO's role and work in statistics (2008): comprehensive set of recommendations to help FAO to regain its role as global leader in the development of international statistical standards in food and agricultural statistics.
  - It included an effort to seek input on emerging data needs from major users and partners. The following table provides a summary of the data needs resulting from input from data users and stakeholders.



#### **Emerging Data Needs identified in the IEE**

- Agro-Environmental
- Energy/ Bio-fuels
- Climate Change
- Household Consumption & Food Security
- Land/soil (including cartography)
- Prices
- Rural (sub-national) Data
- Trade
- Water

#### Agriculture & Environment: a unique relationship

- The output of the production process in agriculture is renewable, unlike all other activities
- While agricultural production is renewable, the production process can affect the future climate, the environment, and its future sustainability.
- The climate and the environment in which agriculture takes place have a great impact on the availability of inputs, technology used, and resulting outputs from the production process.

### Agriculture's effect on the environment

#### **NEGATIVE**

- largest user of water (70% worldwide; 90% in developing countries)
- cause of agro chemical pollution
- cause of soil degradation (intensity of cultivation of marginal and erodible land)
- large contributor to greenhouse gas emissions (esp. through deforestation, rice production, the raising of livestock, etc.)
- exploiting natural resources & reducing biodiversity (e.g. fisheries)
- spread of animal diseases
- .....
- This impact is much higher in developing countries where agriculture is still the major component of employment and GDP



#### Agriculture's effect on the environment

#### **POSITIVE**

- carbon sequestration
- managing watersheds
- preserving biodiversity
- providing feed stock for bio fuel production
- amenity function
- ...



#### **Effect of global warming on Agriculture**

- Climate change will increase the incidence of poverty, hunger and malnutrition. It will worsen the living conditions of farmers, fishers and forest-dependent people who are already vulnerable and food insecure.
- Risk of increased crop failure due to droughts,
- New pests and diseases that flourish only at specific temperatures and humidity
- Loss of livestock, and reduced availability of marine, aquaculture and forest products.
- More frequent and more intense extreme weather events will have adverse impacts on food availability and accessibility, as well as on livelihood assets and opportunities.
- Poor people will be at risk of food insecurity due to loss of assets and lack of adequate insurance coverage.



#### Data requirements

- Broaden the scope to include forestry, fisheries and aquaculture, and statistics related to land, water, and the environment.
- All variables are closely interrelated
- New requests coming at same time
- Much data not available
- When data available, not of good quality: in particular, inconsistent, not comprehensive, not well integrated with the rest of the statistical system
- The FAO Statistical System has moved well beyond the original mandate (collecting information on agro-environmental degradation, climate change, biological diversity, etc) but in an "ad hoc", uncoordinated way



#### **FAO** response

- Development of a "Global Strategy to improve agricultural and rural statistics"
  - need of a new comprehensive analytical and policy framework for integrating agricultural and rural development with sustainable use of natural resources
- Coordination of FAO Statistical System
  - Established a Statistics Programme Steering Committee (SPSC), to provide strategic and policy direction for the FAO's work in statistics
  - Established a Statistics Coordination Committee (SCC), to ensure coordination on technical and operational issues (e.g., selection of indicators, coordination of data collections, questionnaire development, harmonization of standards and methodology)

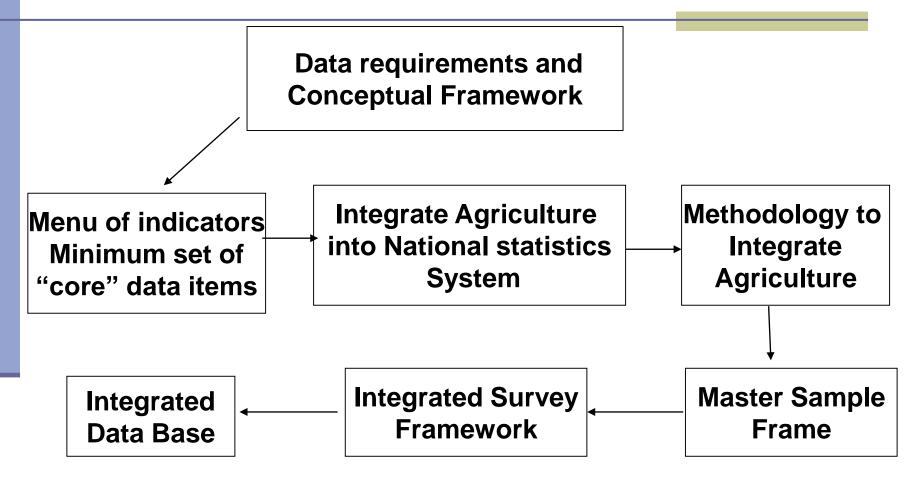


#### What is the Global Strategy?

- An initiative of the 40<sup>th</sup> session of the United Nations Statistical Commission
- Partnership between International Agencies, developed and developing countries
- 2 intergovernmental process for its adoption:
  - UNSC and National Statistical Offices
  - FAO Governing Bodies and Ministries of Agriculture
- Long-term plan to respond to the statistical needs of the 21<sup>st</sup> century (a living document)
- Feasible and sustainable for developing countries
- Basis for a renewed initiative of capacity building in agricultural statistics: mobilization of resources

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# Elements of the Global Strategy to Improve Agricultural Statistics



**Governance and Statistical Capacity Building** 



#### Decisions of the 40th UN Statistical Commission

- A global strategy is needed to meet the increasing demand for information at both the international and country levels;
- Agricultural and rural statistics are essential for policymaking and Agricultural Ministries have an important role to play in the compilation of agricultural statistics;
- FAO taking the lead in the development of the global strategy, to ensure the involvement of the Ministries of Agriculture through FAO governing bodies;
- A Friends of the Chair group (FoC) is established to steer the process, with FAO and the United Nations Statistics Division serving as secretariat;
- Friends of the Chair group to report back on the progress made to the UNSC at its 41<sup>st</sup> session.



### **Actions taken by FAO**

- Facilitating the creation of the Friends of the Chair group of the UN Statistical Commission
- Organizing a series of meetings in which the new global strategy on Agricultural Statistics will be reviewed
- Working with partners to prepare the background document



#### Members of the FoC Group of the UNSC

- Brazil (chair)
- Australia
- China
- Cuba
- Ethiopia
- Italy
- Morocco
- Philippines
- Russian Federation
- Trinidad and Tobago
- Uganda
- USA

- FAO (secretariat)
- UNSD (secretariat)
- EUROSTAT (observer)
- World Bank (observer)



#### Meetings to discuss the strategy

- Seminar with FAO Permanent Representatives, Rome, 22 June 2009
- Satellite Meeting of the ISI, Maputo (MOZAMBIQUE), 13-14 August 2009:
- Seminar at the 57<sup>th</sup> Session of the ISI, Durban (South Africa), 17 August, on "Economic Accounts and Economic-Environmental Accounts for Food and Agriculture: Design and Practice"
- PARIS21 Consortium Meeting, Dakar (SENEGAL), 16-18 November 2009
- The FAO Conference, Rome, November 2009
- UN Statistical Commission, February 2010, for final endorsement



#### Preparation of the background document

- Earlier drafts were discussed at a meeting in Washington DC, October 2008, and at the 40<sup>th</sup> Session of the UNSC, February 2009.
- FAO Statistics Division coordinating input from all FAO
   Departments with substantial statistical work (Fishery, Forestry, Natural Resources)
- FAO SD working closely with other international development partners (World Bank, African Development Bank, EUROSTAT, PARIS21, UN Statistics Division, US Dept of Agriculture)
- Collaboration with UNCEEA to develop the conceptual framework (System of Environmental Economic Accounts for Agriculture and Rural Development)



#### FAO participation in the SEEA revision

- Greater and more coordinated involvement of FAO in the SEEA revision.
  - Classification of land
  - Classification of forests
  - Carbon sequestration by forest
- SEEA Forest
- System of Environmental Economic Accounts for Agriculture and Rural Development