United Nations Regional Seminar on Census Data Dissemination and Spatial Analysis

Santiago, Chile

31 May – 3 June 2011

Introduction: Use of technological tools in census data dissemination

United Nations Statistics Division (UNSD)

Outline

- Censuses and technological tools
- Dissemination challenges
- Technological tools used in dissemination
  - Internet dissemination
  - Interactive web-based tools
- Dissemination systems
- Highlights from Survey on census methodologies used in 2010 round
- Challenges and opportunities

Censuses and technological tools

- Technological tools used in virtually all phases of the census operation:
  - pre-enumeration stage
    (mapping, GIS)
  - enumeration stage
    (data collection, e-Census)
  - post-enumeration stage
    (data processing, dissemination, archiving)

Dissemination challenges

- Timely release
  - ensure the most recent and correct data are disseminated
- Accessibility
  - enhance visibility and usability of data
- User-friendliness/orientation
- Present relevant data and metadata
  - that meets users' actual needs
  - that helps turn statistics into knowledge
- Assist data users
- Add spatial dimension to statistical data

Technological tools used in dissemination

- Computer media (CD-Rom/DVD)
- Internet dissemination
  - Static web pages (html, PDF, excel, ASCII text)
  - Interactive online tools (queryable databases, tabulating/graphing/mapping tools, etc)
- Geographic information systems (GIS)
- Mobile technology (SMS, etc.)
- Social media (Facebook, Twitter)

Internet dissemination

- has become the primary means of data dissemination
- allows for quicker release of detailed data
- brings large volumes of data more easily and cheaply to users
- allows the creation of systems where users could service themselves (allow users to specify the content and form of output, manipulate and generate results themselves)
- same facility could cater for the needs of different types of users, both internal and external users
- allows presentation of data from multiple sources at one site

Interactive web-based tools

- orient users to the available body of data
- provide interface for interacting with the data and tools for self-service
- help users anticipate, interpret and evaluate results
- design considerations:
  - functionality to satisfy different levels of users
  - adopting a layered approach
  - contextual linking of metadata

Dissemination systems

- Software packages consisting of: database and internet enabled user interface

  (easy access to data, rich features, functionality to manipulate and download, flexible structure, analytical tools, support for users)

  - CensusInfo
  - CSPro
  - Redatam
  - others

Highlights from Survey on census methodologies used in 2010 round

- 28 questions on: cartography; method of enumeration; census evaluation; data processing; data dissemination; and others
- 138 out of 233 (59%) countries or areas completed the questionnaires in 2009-2010
- Report on results of Survey available at: 2010 World Programme website (http://unstats.un.org/unsd/census2010.htm)

Highlights from Survey on census methodologies used in 2010 round (cont'd)

- Dissemination:
  - Almost all countries (132/138) use a combination of print and electronic media for dissemination
  - 5 developed countries indicated that they ceased disseminate via print publications
  - Most commonly used electronic media of dissemination include: Statistic web pages - 128 (95%) countries; CD-ROM/DVD -108 (80%) countries
  - Over 70 (50%) countries use online databases and GIS web-based mapping tools

Challenges and opportunities

- Manage innovations due to shifts in demand, methods, technology
- Establish effective means of communication with users to stay current with changing user expectations and to support users
- Continuously develop effective data presentation tools with input from statisticians, IT experts and data users
- Develop cooperation with other institutions and statistical organizations, nationally and regionally
- Adopt data and metadata standards, including for international data exchange and comparability