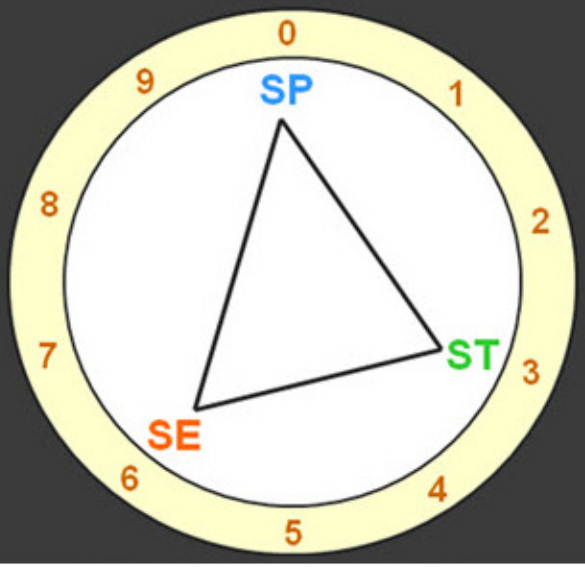
LINKING POPULATION AND AGRICULTURAL CENSUS IN INDONESIA

Introduction



Ten Yearly Cycle of Data Collection by means of Census

- Indonesia has three type of data collection by means of census which are:
  - Population Census (SP for Sensus Penduduk) that is conducted ten yearly in the year ending with "0" (2000, 1990, 1980 …);
  - Agricultural Census (ST for Sensus Pertanian) that is conducted ten yearly in the year ending with "3" (2003, 1993, 1983 …); and
  - Economic Census (SE for Sensus Ekonomi) that is conducted ten yearly in the year ending with "6" (2006, 1996, 1986 …).
  - In accordance with the ICAS-V theme, this paper is only concerning the linking population and agricultural census.

Population Census 2010

- Population Census is to be conducted every ten years
- De jure and de facto approaches are applied in order to catch all people in the enumeration areas.
- Common information collected are name, sex, and age relationship to the head of households, marital status, socio-economic characteristics of the respondents, education, fertility, mobility, and information on housing condition.

Population Census 2010 *(Continue)*

- The Population Census 2010 activities can be elaborated into several stages as follow:
  1. Area mapping and Census Block development and identification.
  2. Listing of households and buildings.
  3. Population data collection.
  4. Data dissemination.

Agriculture Census 2013

- The agricultural census was conducted in Indonesia for the first time in 1963.
- It was implemented only in rural areas in all Indonesia provinces, except Irian Jaya (Papua), which was excluded because of the lack of human resources and budget to cover this remote area.
- The smallest enumeration area was “lingkungan” (surroundings).
- The main goal of the 1963 agricultural census was to obtain data in the agriculture sector in order to make a complete description of agriculture structure in Indonesia.
- Information collected included land use, irrigation, fertilizer use, livestock, number of agricultural workers, transport facilities to market agricultural products, and agricultural equipment.

Agriculture Census 2013*(continue)*

- The last Agriculture Census was in 2003.
- Based on the census, number of farmers in Indonesia in 2003 was 34.99 million people and number of agriculture households was 24.87 million. The census revealed that 53.30 percent of the households occupied less than 5,000 m^2 of land.
- The upcoming Census is the Agriculture Census 2013 which is now in preparation stage.

Agriculture Census 2013 *(continue)*

- The data obtained from the agricultural census has distinct characteristics compared with the data obtained from annual agriculture surveys.
- In general, the objectives of the agricultural census are:
  a. To obtain complete and accurate data in the agriculture sector in order to get a clear picture of agriculture structure in Indonesia.
  b. To obtain a sampling frame that will be used as the base of sample selection for agriculture surveys.
  c. To obtain information on the population of agriculture households, landless agriculture households, area of food crops, number of trees and livestock, distribution of land holding, etc. hence, data obtained from the census can also be used as a base to correct the estimations of food crop production, horticulture, plantations, forestry, livestock and fishery.

Statistical units in the agricultural and population censuses

- Both agricultural census and population census in Indonesia use the same statistical unit which is the term of household.
- An ordinary household is a group of persons who usually live together in a building or housing unit who make common provision for food and other essentials of living.
- A household is considered to be an agricultural household when at least one member of the household is operating holding activities that produces agriculture product, either fully or partly of the product is for commercial purpose in order to earn income on their own risk.
- The activities consist of farm cultivation, husbandry and poultry, aquaculture, and fish capture.

Statistical units in the agricultural and population censuses *(continue...)*

- the characteristics of agricultural establishment are not collected in the census.
- They are collected in complete enumeration conducted annually.
- However, agricultural census conducts updating directory of agricultural establishments that can be use as base for the annual establishment complete enumeration

Use of common concepts, definitions, and classifications

- Some variables covered in both agricultural and population censuses are similar.
- Both agricultural and population censuses use common concepts, definitions, and classification for each of variables.
- The results are comparable and could be incorporated in comprehensive analyses.

Using the population census as a household frame for the agricultural census

- One of essentials activities in population census is area mapping.
- This activity creates and updates the enumerator working unit which is called Census Block.
- Census Block (CB) is part of a village which is the working area for a enumerator.
- A CB has some criteria as follows:
  - Every village is fully divided into some CBs
  - A CB must have clear and eye catching borders either natural borders or manmade borders.
  - Local administrative area borders under a village are prioritized as the CB borders.
  - A CB must be in one single field.
  - A CB consists of 80 up to 120 households.

Existing agriculture-related data in the population census

- One of variables accommodated in population census is main income sources or main industry. Therefore, data resulted from the population census would be essential for prior information in agriculture census.
- The population census provides information on demography in general for the whole households and population in the country. This will give prior information that could be use for comparison, evaluation, and validation of data resulted from the agriculture census.
- The population census collects information on social economics characteristics related to housing unit.
- Agriculture census collects similar information with focusing on farmer households. Thus, both could be integrated for further analyses on farmer welfare.

Linking data from the agricultural and population censuses

- The same households could be identified and observed both in population and agricultural censuses. Therefore, it is possible to conduct cohort or panel analyses by integrated and linked information from agricultural and population censuses.
- Another reason that the data resulted from the two censuses can be linked is both censuses use the same census blocks which make easier to match households identity in the censuses.

Linking data from the agricultural and population censuses (Continue)

- The data resulted from the Population Census 2010 will be very essential due to the modified methodology of the Agricultural Census 2013.
- The information will be used as base for updating activities in the Agricultural Census 2013.

Linking data from the agricultural and population censuses *(Continue)*

- The Agricultural Census 2013 is planned to be started with updating activity that will be conducted by visiting all agriculture households that are listed on the list resulted from the Population Census 2010.
- The updating activity will verify the agriculture household location and head of household names in a certain CB.
- Beside, the enumerator must enrich the information on the form through respondent direct interview.

Linking data from the agricultural and population censuses *(Continue)*

- The next stage will be sweeping which is started with finding prior information from informants about the existence of agriculture households in the CB whose names are not on the list resulted from the Population Census (by showing the CB map under enumerator's responsibility).
- Afterwards, all head of agriculture household names informed by the informants and not yet on the list are then added to the list.

conclusion

- Data resulted from the population census could be very essential for the agriculture census in term of prior information.
- This information is essential for agriculture census budgeting, design, implementation, evaluation, and validation.

Conclusion *(continue...)*

Some keys that could be beneficial when the agricultural census is linked to the population census are as follows:

- The population census can be use as prior information for other censuses such as agricultural census. Therefore, the census must be designed and conducted with concerning the integration of future plan of other censuses.
- Some variables collected in population census are similar to some collected in agricultural census. Hence, both censuses must use the same concepts and definitions that make the result comparable.
- The population census will be more beneficial for agricultural census if the result could identify some keys related to the agriculture potential.

THANK YOU