

Lesson Learned from the 2010 Indonesia Population and Housing Census

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I. Introduction

As widely known that census has been a world heritage of the civilized nation. There were recorded several earliest documented census was taken in the era of Babylonia Empire 6000 years ago and there was also population census in the era of Prophet Moses in the years of around 3 thousand years ago. In the years 2, the Roman Empire under Caesar Augustus conducted the most famous and most developed population census of any recorded in ancient world. This census played an important role in the administration of the Roman Empire. The word census today originally came from the Latin-Roman world "censere" (meaning "estimates").

Since that time, census has been implemented in every civilized nation as part of the government efforts for the prosperity of the nation. In April 2010, United State of America (USA) and also China in October 2010 conduct the population census to count the number of entire population and its characteristics for the whole country. For every country in the world, population census has been part of the nation's effort for planning a better life for the people.

Indonesia, as the fourth largest population country in the world, had conducted the sixth decennial population census 1-31 May 2010. This is a very huge task of the nation. The 2010 Indonesian population census required around 700 thousand field enumerators in addition to around 16 thousand BPS-statistics Indonesia staff. The enumerators visited every household of around 65 million households for the whole Indonesia.

A census is the statistical procedure of scientifically obtaining and recording about the member of a given population. Adopting United Nations definition, population census is the total process of collecting, compiling, evaluating, analyzing and

disseminating demographic, economic and social data pertaining at a specific time to all person in all areas either those who live in the cities or in the remote areas of the country, including foreign population residing within a country. Only those who are the members of diplomatic staff which are not being census.

II. What We Get from the 2010 Indonesia Population Census

Population census in Indonesia has a long history. Since the colonial period census has been implemented in some part of Java. In 1920 there was Java Population Census, and the whole areas of Netherland Indies was being censused in 1930 resulted the total population of 60.7 million people. Since Independence there were five censuses have been conducted: 1961, 1971, 1980, 1990, and 2000 population census. The 2010 Indonesia Population Census is the sixth.

It is interesting to note that the 2010 population census conducted from 1 to 31 May 2010 consist of 43 questions ranging from basic information related to household members, vital statistics related to fertility, mortality, migration, religion, ethnicity, nationality human capital variable such as education, employment, health and environment, and housing characteristics.

Contrast with survey in which data presented on the basis of large administrative level such as national or provincial level, census data can be presented even for the smallest administrative areas giving an opportunity for the planners to compare the achieved human resources development between small areas of the whole country. The comparison between province, district and villages as well can be done. Through the result of the census we gain very valuable information of the life of the people even in a very remote area.

Data on social economic situation, including information regarding housing facilities, of the whole population can be used as indicator of welfare of the society. Indonesian census also produced data on ethnicity, religion and nationality. These sorts

of data describe the degrees of pluralism among regions in all level which are important to measure cultural acculturation and the possibility of cultural fertilization in each area.

In the era of regional authonomy, data on education attainment, means year of schooling, the ability to write and read, employment, unemployment, field of works and work status are among valuable describing the quality of Indonesia human capital. It means that there are abundant opportunity for the planners, businessmen, researchers and the community as a whole to examine the achieved development and its disparity between areas throughout Indonesia.

There are many things that Indonesia can get from the implementation of population census. Census gives portrait of the Indonesian people in its various dimension; the strength and weaknesses of Indonesia's human resources. The number of total population and its demographic structure enabling scholars to use it as the basis data for population projection to predict the number of population in the future. These data are very valuable especially for planners to reconcile them with the future need of the people in all segments of the society. Census has become one of the strategic events in all countries. It no means of exaggerating if the scholars say that census is inherently part of the destiny of the nation. There is no room for the regional authonomy to be workable without data, and these things can only be gained from the population census. Census is an opportunity for building the nation image, credibility and reputation. If the census is success, it means that nation success presenting the truly face of its country and contribute to the United Nations need for quality demographic, socio-economic and human capital data.

III. Achieving the Success

It is certainly not easy to implement population census successfully in a very large country such as Indonesia. Besides the readiness of well planned equipment, manpower, finance, and the ability to organize and to mobilize of all resources within the government, local authorities and communities. We need good planning to

formulate the basic concept and direction, operational plan covering timing, population to be enumerated, unit of enumeration, questioners, census moment, duration of enumeration, preliminary field works and many other things that have to be well prepared.

Among the most important is also how to do the effective census campaign. Everyone should understand the important of the census. The government should develop an integrated and well planned communication campaign that include the role of printed media, television, radio, and other means of communication with the main focus to reach the harder-to-count communities. The campaign should stress the benefits of being counted. All the potential resources should be used in order to guarantee the success of the 2010 Indonesia Census. The success and the failure of the census depend on our best to hand in hand, together, to make it success.

IV. The Problem

When we are talking about statistics, the main question might be how accurate is the statistics produced, that in the census context is how small/how big is the measurement error or non-sampling error during enumeration in the field from household to household. Our concern is how can we handle this problem?

For Indonesia as multicultural country, we have about 300 (sub) ethnic groups and more than 250 local languages we instructed enumerator to just read the question in census form as it is when they interview the households and individuals, however the questionnaire is in Indonesia language. There would be no problem for enumeration in the urban areas and for the respondent whose education attainment is quite high, for example high school graduate and higher. The problem arises when enumeration take place in the rural areas and the education of respondents are only elementary school graduate, the enumerator will take initiative to translate the question into local languages, so the data gathering could take place. It is most likely that the error would occur of not precisely translation. Also, sometimes for purpose of friendly interviewing,

the questions need to be translated into local languages. It is extremely difficult to translate for example the concept of pregnancy related death to inquiry the occurrence of maternal death, the concept of live births, the concept of septic tank, etc. So, this is the big issue for Indonesia

Another problem we are facing in Indonesia is about hand writing forms/styles. We found various forms of handwriting for specific numbers and character that created errors in OCR and ICR data captures, when we compared the original documents and the image of the document. The frequent error involves number one, seven, capital I, small L; numbers three and eight etc. => It is clearly need to have a standardization of number and character handwriting since very beginning of education (elementary school), what I mean is the problem will still exist for the next housing and population census.

The very basic issue for us as National Statistical Office is about the number of information to be collected in the population census, this directly implies to the methodology of the census, burden of the enumerator which is also impact to the non-sampling error, the number of enumerator to be recruited; the smaller number of enumerator recruited, the more likely that better enumerator can be eligible, and of course the cost of the census. Experiences we have from 2 last population census (2000 and 2010) where the long forms were applied to gather more than 25 information clearly needed very much resources and time to finalize the results of the censuses still with non-sampling error. There is trade-off in this case which is the more data collected, the less the accuracy of data gathered in the enumeration.

The view from BPS officials and the demographers is that the next census would be a very short list of basic information to be collected to every households and individual, and the more detailed and additional information would be collected on the sample basis for about 10 percent of total population as long as key indicators of demography, population, and housing can be produced to represent small area of administration, such as sub districts.

V. Conclusion

It is clear that population census has delivered an important role as basic resources for planning process since many years ago. As one of the largest populated countries, after the independence Indonesia has conducted six consecutives decennial census. There were about 43 important variables decided to be collected in the latest census. The portrait of human resources in Indonesia will be utilized for planning process. The benefit of complete census is used for analysis of small area, which is the government and people need. However, since Indonesia is very large country, best planning has to be carefully prepared in order to achieve the success. The problem faced has to be dramatically diminished based on the experience of the previous census and surveys.