Data Dissemination
on
2008 General Population Census of Cambodia

1. Introduction

The findings of the 1998 Census data were successfully disseminated both through electronic products and printed reports and by way of dissemination seminars and workshops at the national and provincial levels. The CDs released, each for priority tables, aggregated commune database, POPMAP applications, and WinR+ Population Database were well received and used by the line Ministries, International Agencies, NGOs, planning offices in the provinces and districts, the universities, individual and institutional scholars and researchers, teachers and students, and other data users. Another important dissemination product developed was a web site with census background information, key census results, and a request page such that distant data user can demand for further detailed census information. Census tables were also supplied as demanded by data users from time to time. DUSC has also been servicing data users on an on-going basis. All these measures promoted large scale utilization of census data by line Ministries and even government departments like Provincial Planning Offices. Training workshops were conducted at national and provincial levels on retrieving the census data from electronic dissemination products and data utilization. This was continued in 2008 Census also.

2. Dissemination

2.1 2008 Population Census Dissemination by print media

The reports mentioned under the analysis plan are being printed and published. Also published were handy data sheets and brochures containing important indicators as derived from the census analysis with suitable and attractive illustrations. Wall maps/charts and census thematic atlases were also produced.

Apart from reports and maps, census priority tables on each topic would also be published. In the 1998 Census, Tables at National and Provisional levels were published. In the context of growing literacy and educational levels among the people of Cambodia, it may be useful to make available select abridged tables also at district/commune levels. This may be useful for local planning and for those who may not have access to computer facilities and consequently may not be able to avail of the census electronic products.

2.2 The 2008 Census Electronic Dissemination products

The fast-growing uses of computer and its networking call for wider and deeper electronic dissemination products with user-friendly interface, and efficient retrieval and manipulation functionality. The electronic dissemination is classified into two main categories, 1. Off-line electronic dissemination products and 2 On-line electronic dissemination products.

2.2.1 Off-line electronic dissemination products

Off-line electronic dissemination products are mainly in the form of CD-ROM. The project plans to produce a variety of electronic dissemination products based on CD ROMs. These include: a Table Retrieval System, a Community Profile System, a population database built on census micro data, a thematic mapping application and Cam Info updates. About 1000 CD-ROMs may be produced initially.

a. Table Retrieval System (TRS)

The Table Retrieval System stores the large number of census tables onto a single CD ROM and facilitates easy retrieval of selected tables. A user-friendly interface will be available to select multiple tables for multiple geographical areas. The application will also include a table viewer that allows exporting the tables or table cells to Excel spreadsheets for further manipulation and analysis.

b. Community Profile System (CPS)

This dissemination product is based on an indicator database consisting of aggregated counts, rates and ratios for all possible geographical levels, i.e. the Country (total, urban and rural), Provinces (total, urban and rural), Districts, Communes, and Villages. A variety of indicators may be considered, such as: distribution by age groups and sex, household types, median age, dependency ratio, singulate mean age at marriage, literacy rate, employment rate, educational attainment, proportions of migrants, etc. The application will allow aggregation of selected areas and will include functionality to present some of the key indicators in a graphical format and to export the profile to Excel format.

c. Population database

Population databases are highly recommended as they greatly expand the usability and enhance the dissemination of census data. Databases on micro-data (individual records) permit retrieval of data at any level of detail. They are ideal tools to produce small-area statistics. However, the issue of confidentiality will have to be considered and may require re-coding of some of the variables to a higher level.

It has to be pointed out that Cambodia produced even as early as 2000, a CD containing the WinR+ Population Database for the 1998 Census. The database consisted of micro-data of the 1998 census (all data records of the individual and households). This enabled the data user to produce any cross-tabulation for any user-defined geographical level. For Cambodia application the lowest selectable geographical level was the village. The CD released was called CD#4 with the following description: CD#4 Win R+ Population Database. It consists of the micro-data of the census. In all there are 2,188,663 housing records and 11,437,656 person records in the database. These records are stored in compressed (binary) format and are accessible only through the WinR+ database engine.

The interface for the population database in 2008 is the REDATAM+SP [REDATAM stands for Retrieval of Data for small Area by Microcomputer] package. This package enables data users to easily derive information from the database, including new variables, tabulations and other outputs. All this can be achieved via graphical windows and without the assistance of a programmer. The software also facilitates the processing of external databases in one of the common formats such as dBase and Excel. A Data Dictionary, describing in detail the structure of the database, will be included with the product.

d. Mapping application

Mapping and graphing databases also greatly improve the effectiveness of census dissemination as trends and patterns of the larger area, and distinct boundary and characteristics are more easily detected when displayed on maps. The project will make available map layers for the Country, Provinces, Districts, Commune and, if possible, Villages. Statistical databases consisting of aggregated count, ratios and rates for all geographical levels will complement these map layers. The layers will be in ESRI shape file and MapInfo table file formats. Data users are expected to acquire a copy of their preferred GIS software.

e. CamInfo Updates

CamInfo is the national adaptation of DevInfo software, a global initiative funded by the United Nations. CamInfo is Cambodia's Socio-Economic and demographic Indicator Database, providing a one-stop user-friendly computer program for storage, retrieval, comparison and dissemination of a wide range of indicators from different sources, including national surveys, censuses and administrative systems. CamInfo also allows the user to retrieve and compare indicator data values across multiple time periods, geographic levels, and other sub-group dis-aggregations. Data presentation is possible with tables, graphs and maps.

The National Institute of Statistics has selected indicators from the priority tables of the 2008 Census based on the perceived needs of users, for incorporation into the CamInfo regional updates. The online user interface is the same as the CamInfo updates CD-ROM. This will allow users both inside and outside of the country to access data using the Internet without installing the CD. A DevInfo workshop was held in February 2010 when CamInfo of 2008 Census was released.

The feasibility of using the recently introduced census dissemination tool called UN Census Info would also be explored.

2.2.2 On-line census dissemination

The National Institute of Statistics maintains a web site with information on population censuses, the results of various types of surveys, periodical publication, etc. The URL is www.nis.gov.kh. Most of the information available on this web site is in a static format. For the on-line dissemination of the results of the General Population Census of Cambodia 2008 a more dynamic approach is envisaged. In the dynamic website, users can retrieve data down to

provincial level. Priority tables and analysis outputs are suggested to be available on-line for wider and distant accesses. The possibilities of SQL database querying and on-line mapping will be explored. To abide by the statistics law on keeping confidentiality of respondents, however, security, authentication, recoding and aggregation shall be closely observed.

2.2.3 Other Electronic products

As there is a vast scope to expand this type of dissemination in modern times, more electronic products may also be utilized.

2.2.4 Dissemination Workshops

Seminars for the presentation of census results and workshops to train planners in the line Ministries and other data users are conducted in the course of 2009-10. Such seminars/workshops are held in every province/district so as to benefit participants down to the village level. They were held in Phnom Penh and provinces once in 2009 closely following the release of final results in September 2009 and again in 2010 at the national, provincial and district levels after the provincial reports are released.

The purpose of the dissemination workshops is to provide census data to planners, administrators and researchers at province, district and commune levels. Such direct interactions between the producers of census data and its users would enable the latter to understand the impact of population growth on welfare measures undertaken by the Government and also help monitor the progress made in the various development programmes of Cambodia.

3. Micro Census Data

According to statistics law, the raw data from censuses and surveys have restricted for data users. However, some part of raw data have permitted after approving from Director General of National Institute of Statistics (NIS), Ministry of Planning and Senior Minister, Minister of Planning but the data users have to specific the purpose for using the micro-data. In the 1998 and 2008 Census, the individual information has been aggregated to village level by using REDATAM+SP package. And for hosting on dynamic website (www.nis.gov.kh), the data users can access and produce tables down to provincial level.