POPULATION PROJECTIONS FOR CAMBODIA, 2008-2030

INTRODUCTION

1. Population projections are usually conducted after the results of a population and housing census are published. The projection is the most important analytical operation conducted with the census data. First, the census population is obsolete by the following day of the census, and the projection provides the current population size which is, by itself important, but also makes available denominators for most population-based indicators during inter-censal periods. Second, a population projection does not involve only an estimation of the future population, but also an evaluation of the census coverage and quality of some data. The standard practice is to adjust the population in terms of reducing problems of under enumeration, both affecting the entire population or some specific groups, and also to evaluate and adjust the demographic variables used in the exercise.

2. This report includes three sets of population projections by age and sex: national, urban-rural and provincial. For the three sets, the cohort component method was utilized. It involves calculating the future size of cohorts, taking into account effects of the population components, that is, mortality, fertility and migration. Its principle is to advance though time, in five-year increments, five-year cohorts from a base population, in this case the 2008 adjusted census. Hence, in its most basic form, this method provides the population by sex and five-year age groups for the end of each quinquenium of the projection period. Nevertheless, for these projections the results are provided for single ages and continuous years. For the national projection, the period covered is from 2008 to 2050 and for the urban-rural and provincial projections from 2008 to 2030.

3. A common practice in population projections is to prepare, at least for the national projection, three *hypotheses* or *scenarios* regarding the magnitude of population increase. They differentiate each other mainly in the behavior of the components, especially fertility. The *most likely hypothesis* or *middle scenario* is the one constructed with the most likely future behavior of the components (sometimes just fertility is used). Two more scenarios are constructed, one that recommends a more rapid population growth that that assumed in the most likely scenario, and another where a slower population growth is proposed. For these projections, only one scenario is proposed. Although three or more hypotheses may have analytical interest, policy makers, administrators of programs and planners typically utilize only the most recommended projection. In other words, they need one figure and not three or four.

4. It is important to clarify here, at the beginning of this document, that a population projection is not a clairvoyant or fortuneteller exercise nor a complex scientific recipe to foresee the future. When conducting a projection the purpose is not to predict the population numbers for future years or decades, but to provide the size that population will have if certain assumption regarding mortality, fertility and migration levels and trends take place in the future.

5. In this sense, a population projection is more a prospective exercise than a prediction. What is important is not to guess the exact number of children, young adults or elders that will be living in a territory in 10 or 20 more years. What is relevant to know is whether or not the number of schools, classrooms and teachers will have to increase by a given percentage to reach full education coverage in the future, the economy will have to generate jobs at a certain rate to reach low levels of unemployment, and a given quantity of new residential dwelling will have to be constructed to avoid housing shortages (if the trends in the demographic components come about as proposed in the projection exercise). In other words, projections are not instruments to predict the future but to construct the future[1]

POPULATION PROJECTION AT THE NATIONAL LEVEL

6. As mentioned above, the method used to prepare these population projections is the cohort component method. This projection was conducted using the software Rural-Urban Projections (RUP), developed by the U.S. Bureau of the Census. One of the main advantages of this program is that it allows performing projections by single years of age (instead of five-years as the conventional approach). Data for special age groups that do not fall into conventional five-year age groups can be obtained with this feature. It also makes it possible to follow population cohorts that may be smaller or larger than adjacent cohorts due to past demographic events. In addition, the projection is executed year by year. By using this feature it is possible to add information on demographic events for a particular year without forcing the effect over a five-year period. It also provides users with estimates for each year without having to interpolate between data for intermediate years. Input data for the population and components can be provided in either single years or five-year age groups. The age grouping of each item is independent, so it is possible to input five-year data for some items and single-year data for others. The program converts all data set to single years of age before executing the projection. This flexibility has the advantage of allowing a demographer to develop a projection model that accurately captures the demographic situation of a country and makes maximum use of available data in a way that is as close as possible to its original form. The program provides outputs on diverse demographic measures for any given year within the projection period such as population by age and sex (single years, 5-years age groups, and special age groups), summary measures, summary vital rates, life tables, migration rates, number of births and death, etc.

7. The statistics on birth and death provided by the vital registration system of Cambodia are not complete and it is not possible to use them to estimate fertility or mortality levels. Thus, for this projection, these data were obtained mainly from the 2008 census. During the past 50 years technical demographers have developed reliable methods for estimating mortality and fertility from census data. They are the so called *indirect methods*, which are extensively utilized in this type of work.

[1] Romaniuc, A. 1990. *Population projection and prediction, simulation and prospective analysis*, Population Bulletin of the United Nations No. 29, pp. 16- 31.

8. The NIS prepared a report on the estimates of mortality and fertility based on the 2008 Census[2]. In the case of fertility, the data usually utilized to measure this variable is the number of children born in the past 12 months and also the number of children ever born. Several indirect methods were utilized to estimate Total Fertility Rates (TFR) and other fertility indicators. Based on the plausibility of the results, the robustness of the methods and other methodological considerations it was decided to accept a TFR of 3.1 children per woman as the fertility level provided by the 2008 Census. This value is the average between the fertility rates estimated with the Arriaga one-census and two-census method. The former gave a TFR of 2.7 and the latter of 3.4 (based on data from the 2008 and 1998 censuses)[3]. The data indicates a substantial decline during the inter-censal period: from 5.3 to 3.1 children per woman. Data from the 2000 and 2005 Cambodian Demographic and Health Survey also indicates a substantial decline in fertility during 1998-2008. It is important to mention that the application of the several indirect method of fertility estimate indicate a substantial under-reporting of births in the census questions of births during the past 12 months.

9. In order to gain a more reliable projection of TFR it is important to examine past fertility trends. **Table 1** shows the fertility trend in Cambodia according to several sources and dates (expressed in TFRs), including those presented in the NIS report on mortality and fertility previously cited. The data was plotted in a graph and several trend lines were tested using the EXCEL *trend line* command. The best fitting curve was a linear equation. This exercise is presented in **Figure 1,** including the respective equation. **Table 2** shows the observed TFRs and those estimated using the equation. The main advantage of this approach is that several independent sources are used and, therefore, the estimated past fertility trend represent an *average* among the different fertility indicators measured by different data collection instruments that may have over- and under-estimate TFRs. It was decided to use the TFR estimated with the equation (**Table 2)** since it capture a trend, which is more appropriate for a projection. Anyways, the TFR estimated with the equation is almost the same as that considered as the best estimate in the NIS report on fertility and mortality (3.01 against 3.05), which is the average of the fertility estimated with the Brass method and the Arriaga method for two censuses (see **Table 1**).

10. **Table 3** shows the estimates of TFR, using the previous equations, for some selected years. The year 2005.67 is the midyear of the quinquenium previous to the census (the months are expressed in decimal terms). The census was taken on 3 March 2008. Since the beginning of the year 62 day has passed; thus, the date expressed in decimal terms is 2008.17 (62/365=0.17). The quinquenium previous to the census goes from 2003.17 to 2008.17. The mid-date of this quinquenium is 2005.67. This value is necessary to adjust the number of the population 0-4 years old. The other four values will be used to project fertility using a logistic curve as it is explained further.

[2] National Institute of Statistics, 2010. *Report 1, Fertility and Mortality in Cambodia*, General Population Census of Cambodia 2008, Analysis of Census Results, Phnom Penh.

[3] For an explanation of these methods see Arriaga, E. 1994. *Population Analysis with Microcomputers*, US Bureau of the Census, New York.

11. Mortality was calculated using the question on number of persons who have died in the household during the past 12 months. The age-specific mortality rates (ASMR) were used to compute a life table but the respective life expectancies at births gave impossible values: 91.2 years for males and 116.8 years for females. In order to evaluate the completeness of the enumeration of deaths the Preston-Coale and the Brass Balance Equation methods were used. The worksheets PRECOA and GRBAL from the package PAS were used for these calculations[4]. The under-enumeration indicated by these exercises is extremely large: 88.2% using the former method and 87.6 using the latter. It is true that when these methods are applied to a population with the demographic dynamics of Cambodia several assumptions are violated, but even though, under-enumeration is unacceptable.

12. It is important to mention that, in spite of the fact that the data on the deaths in the past 12 months is useless to estimate the level of fertility, it may provide a realistic age pattern of mortality. For this reason, the data was used to assess to which table model pattern does the mortality pattern of Cambodia fits better. The program COMPAR from the package MORTPAK was utilized[5]. The results indicate that the Cambodian mortality pattern fits quite well with the North pattern of the Coale-Demeny life table models. Of course this evaluation assumes that the age-sex pattern provided by the 2008 census mortality data is true. The selection of the model will be quite useful for future analyses. The report on fertility and mortality, previously cited, did not evaluate the data on adult mortality.

13. An approach frequently utilized in the absence of reliable estimates of adult mortality is to obtain a reliable estimate of infant mortality. This IMR is used to identify the level of mortality of a model life table that is believed to describe better the mortality age sex pattern of the population. This is precisely the approach used here. A good estimate of IMR was secured and used to select the level of mortality of a Coale-Demeny North model life table.

14. The previous mentioned NIS report estimated infant and child mortality using the data on children ever born and children surviving by age of women. This data is used to estimate early-age mortality with an *indirect technique*[6]. However, considering recent and past estimates of early-age mortality form other sources, the values obtained with this method indicate unrealistically low values. For example, the estimate of infant mortality rate (IMR) was 26 deaths per 1,000 births. The estimate from the 2005 Cambodian Demographic and Health Survey is 62 deaths per 1,000 births[7]. This is not the place to analyze why the method produced such results, but it would be convenient to conduct an in-depth analysis on this issue.

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[4] Arriaga, Ibid.

[5] United Nations, 1988. *MortPak-The United Nations Software Package for Mortality Measurement*, United Nations, New York.

[6] The reader interested in indirect technique of mortality and fertility estimation can see: United Nations, 1983. *Manual X - Indirect Techniques for Demographic Estimation,* United Nations, New York.

[7] National Institute of Statistics, op. cit., 2010

15. As a solution, the number of infant's deaths (under one year) from the data on deaths in the past 12 month in the household and the number of birth during the past 12 months were used to estimate infant mortality directly. As mentioned above, the evaluation of this information indicated a substantial under-reporting of deaths and births, but the respective result, presented in **Table 4**, indicate a more realistic value than that obtained by applying an indirect method to the data on children ever born and children surviving. In any case, the results of **Table 4** should be interpreted with caution and, as explained above, they were used with other independent information. In addition, it is likely that children born in the past 12 months and those who died in the past 12 months are both underestimated. Such under-reporting compensates each other resulting in a relatively credible and reliable estimate of IMR. This argument to justify the use of this approach was given in the report on fertility and mortality published by the NIS and cited above.

16. **Table 4** shows several estimates of IMR, including the one from the 2008 Census previously discussed. These values were plotted in **Figure 2**. A declining trend is clear, initially rapid and then slowing down. Several trend lines were tested using the Excel *trend line* command. The best fitting curve was a third degree polynomial function. Therefore, an equation was established as in the case of fertility to analyze past trends. Estimates obtained from this equation are presented in **Table 5**. These rates, together with those of fertility presented in **Table 3**, will be used to estimate the under-enumeration of the population 0-4 years old and to project life expectancy at births.

17. Note that the estimates of IMR are not disaggregated by sex in **Tables 4** and **5.** Unfortunately, most of the secondary sources did not provide this information. The estimate of IMR obtained from the 2008 census data is not presented by sex either. These data were carefully evaluated and unfortunately they indicate an unrealistically high male IMR as compared with the female rates. In spite of the fact that the IMR for both sexes was credible and consistent with other sources, the IMR by sex was unreliable. The problem was solved by using life table models, in particular the Coale-Demeny North model, which, as mentioned above, seems to be the most adequate to describe the age-sex mortality pattern of Cambodia. The IMR permitted to identify the level of the mortality model for both sexes and this level was, in turn, used to identify the male and female model life table corresponding to such level[8]. In other words, the level of the male and female model life table corresponds to the both sexes level, indicated by the IMR. Hence, the disaggregation by sex of the IMR, and the life tables that were derived from them, followed the North model pattern of sex differentials. **Table 6** shows the IMRs and the corresponding life expectancies at birth (E(0)). Operationally, the number of the life tables that indicates their level is not used. It is the E(0)s that are usually employed (actually, any life table function indicate an unequivocally level of mortality).

[8] Model life tables have numbers according to their implicit level of mortality. Having an IMR, which correspond to the probability of dying before the first birthday (or any other life table function), it is possible to identify the level (number) of the life table that correspond to such IMR. Since the level of model life tables is expressed in integer numbers, most of the time it is necessary to interpolate between levels.

18. The E(0)s corresponding to year 2005.67, presented in **Table 6** were used to construct a complete life table for that date, which is the exact date that correspond to the middle of the quinquenium prior to the census date (**Table 7**). This was done using the program MATCH from the package MORTPAK cited earlier. As suggested before, a life table for this date is necessary to adjust the population 0-4 years, which is the next step. The IMRs and the corresponding E(0)s for 2007 presented in **Table 6** are to prepare the life table for the initial year of the projection period, which is a further operation.

19. In this projection international migration is not considered. The assumption here in this regard is that it is improbable that international migration will become a major component of the population dynamic of the country. This is only an assumption. Emigration and immigration may take place during the future 20 years, but probably its level will be low and hence unlikely to impact on the population size and structure. This hypothesis does not mean that in the near future emigration or immigration will not occur; however there is no evidence for proposing a hypothesis regarding volume and trend of international migration. The usual practice in this case it is to assume that it will be negligible.

20. **Table 8** shows the procedure to estimate the under-enumeration of the population 0-4 years, which is usually the age group that experiences the largest undercount. The operation is based on estimated the number of births using the number of women rejuvenated to the middle of the quinquenium previous to the census and the age-specific fertility rates corresponding to the same date (year 2005.67). To move the women population the program MOVEPOP from the package PAS, previously cited, was utilized. The number of births is multiplied by five to obtain the number of births during the quinquenium and disaggregated by sex assuming a sex ratio at birth of 105. To these numbers of births, the survival rates of the 2005.67 life tables are applied and the population 0-4 years by sex is estimated. Calculations can be followed in **Table 8**. The experience indicates that this estimate is more precise than the census count for this age group. The total under enumeration is 12.9%; for males it is 12.2% and for females 13.6%. These estimates are larger than that calculated from the Post-enumeration Survey: 2.8%[9], which is an expected result.
21. **Table 9** shows three populations. The first one is the 2008 census enumerated population and the second one is the adjusted population. The age group 0-4 was adjusted using the percentages estimated in **Table 8** while the other age groups were adjusted using the percentage estimated by the post-enumeration survey. The third population is the adjusted population moved to 1 July 2008, which is the middle of the year. All the projected values will refer to the middle of the respective years. The program MOVEPOP from PAS was used to perform this operation. **Figure 3** shows the pyramid corresponding to the base population. The dent at age 30-34 corresponds to the demographic dynamic resulting from the Khmer Rouge period. The first two bars indicate the recent decline in fertility.

[9]Report on Post Enumeration Survey, October 2009

22. To project life expectancy, a logistic function was used. The program used was E0LGST from the software PAS cited earlier. The lower asymptote for both males and females was 25 years and the upper asymptote for males was 80 years and 85 years for females. Two intermediate points were used to establish the logistic. The first intermediate point was the life expectancy estimated from the 2008 Census, corresponding to year 2007. These values are presented in **Table 10**. The second intermediate point was the life expectancy at birth corresponding to the infant mortality rate posited by Cambodia for year 2015 within the context of the Millennium Development Goals (an infant mortality of 50 per 1,000 births for males and 43 for females)[10]. Some readers may consider this goal as too optimistic considering the poor gains in mortality reduction exhibited by the country during the past two decades. However, if recent gains in infant mortality continue in the near future, the goal is not as optimistic as it may seem. Less reasonable would have been to use only the four intermediate values (1990, 1995, 2000 and 2005; see **Figure 2**), both using a logistic function or the third degree polynomial function. Initially, it was considered to use these values and one of those functions to project the level of mortality. However, both functions would have established an unrealistically trends in mortality levels for the projection period.

23. **Table 11** shows the *initial life table* for the national projection, which correspond to year 2007. In the projection exercise this table will establish the age-sex composition of mortality. Specifically, the age-specific mortality rates are imputed in RUP. It is assumed that this structure will remain constant until the end of the projection period.

24. **Table 12** shows the estimated and projected fertility level expressed in TFR. The projection was also done using a logistic trend. The program TFRLGTS from PAS was used to project. As upper asymptote, a TFR of 7 children per woman was selected and as a lower asymptote a value of 2 children per woman. 5 intermediate values were selected: TFR for years 1990, 1995, 2000, 2005 and 2007. The worksheet TFRLGST from PAS was used to project TFR according to a logistic function.

25. The age-specific fertility rates (ASFR) that will establish the future age structure of fertility are presented in **Table 13**. The first column shows the ASFR estimated from the 2008 Census and correspond to year 2007. This will be the set of ASFR for the initial year of the projection. It is assumed that the implicit structure of this schedule of ASFR, as fertility continue to decline, will approach an age structure corresponding to the Asian Model of the UN fertility models[11]. This structure, presented in column 2 in **Table 13**, corresponds to a TFR of 2.0 children per woman and it indicates a pattern with births more concentrated in ages 20 to 30 (see **Figure 4**). The last column indicates the ASFR expected for the last year of the projection period (2050).

26. With all these information the projection was conducted using RUP. A summary of the results is presented in **Table 14**. The main results are presented in **Appendix A1** and **A2**. The first

[10] Millennium Development Goals, October 2005

[11] United Nations, 1973. *World Population Prospects as Assessed in 1973*, Population Studies No. 60, United Nations, New York

appendix shows the projected population by age groups and sex for each year of the projection period (2008-2050). The second appendix shows the same information but the population is presented by single age group. It is important to note that the program RUP provide the population by single years of age. However, in this case, it was preferred to obtain the projection by single ages by splitting the 5-years age groups in the original projection using the Beers[12] formulas. It was considered that this method provides more regular and reliable results[13].

27. There are two main issues that are relevant to mention regarding the future population trends in Cambodia:
    - In spite of a substantial fertility decline that is expected for the next decades, population will continue to experience a substantial growth. This is very clear in **Table 14**. During the entire projection period the population will continue to grow. This growth will take place even after fertility reaches a *replacement level*, which is a TFR of a little more than 2 children per woman. Each couple has only 2 children, replacing themselves[14]. This level is to be reached around year 2025. The reason of this continuous growth is the *population momentum* that the population of Cambodia is experiencing. Past high fertility rates resulted in large cohorts of women in reproductive age that, in spite of having reduced their fertility, as a cohort, are producing large number of children. In other words, the number of children per woman has, and will continue, to decrease but, because the number of woman in reproductive age is increasing, the number of births will no decline or will experience only a limited decline. Obviously, the rate of population growth is declining. By the middle of the 2020 it will be near 1% and by the end of that decade it will be les that 1%. At the end of the projection period it will be only 0.55%. Although these numbers appear to indicate a substantial relieve of the population pressure that the country will experience in the future, absolute numbers are not very small. For example, between 2010 and 2015 the population with expand by more than 1 million people and between 2010 and 2020 by more than 2 million.
    - Substantial changes are also expected in the population's age composition. The population of Cambodia will experience an important process of ageing. This does not mean that old-age people will predominate in the population or will reach a very high percentage; this means that the proportion of children will decline and the proportion of middle age people will increase substantially and also the elderly will experience an increase. This is clearly indicated by the median population[15] in **Table 14**. While in 2008 it was 22.0 years, in

[12] Beers, H. S. 1945. "Six-Term Formula for Routine Actuarial Interpolation," *The Record of the American Institute of Actuaries*, 34 Part I (69): 59-60.

[13] The decision taken here of using the Beers interpolation formulas to obtain single age population instead of the results provided directly by RUP can be argued. However, this is not the place for a complex methodological discussion.

[14] Replacement level fertility corresponds to a TFR of approximately 2.1 children per woman. It is " higher than 2.0 (one child for each parent) because there are slightly more males than females born and not all females survive to their childbearing years" from Population Reference Bureau, 2000. *Population Handbook*, Washington, p. 19.

[15] "The median age of a population is the age that divides a population into two numerically equal groups; that is , half of the people are younger than this age and half are older" Population Reference Bureau, op. cit. 2000, p. 59. Although different it can be interpreted as the mean or average age.

2020 it will be 26.7 years and 30.8 years in 2030. By the end of the projection period it will be 36.1 years.

28. Further analyses should study the differential growth of functional age groups such as the working age population, the school age population, young adults, the elderly, etc. These analyses will provide important insights on the future supply of labor, demand of education and health, demand of housing, and the like. Studies on the future age composition of the population are essential for development planning and policy making.

29. In this regard, it is important to mention here that the expected changes in the age structure of Cambodia, as a result of fertility decline, suggest a potential *demographic bonus*; that is, a population composition that positively affects socioeconomic development. There are several mechanisms to this relationship: fertility decline, which increase female labor force participation and facilitates improving family nutrition and health; smaller family size reduces households' dependency ratios and increase incentives to invest in children; and the working-age population increases relative to the younger and older dependents. In summary, the lower dependency ratio helps to speed socio-economic development. Relevant to the demographic bonus is the concept of *demographic window of opportunity*. This window *opens* as the number of young children start declining, and *closes* as the proportion of older people starts its rapid growth. The demographic window open only once in the transition from a young to an old population. The opportunity that it offers can be realized if countries have made the appropriate investments in health, education and employment opportunity for a new and enabled labor force. Is this skilled workforce the engine of development when the window closes. In other words, the *demographic bonus* has no effect in socio-economic development in a context of low female participation rates, rampant unemployment or low investments in health and education[16].

URBAN-RURAL POPULATION PROJECTION

30. The projection of urban and rural areas has a great importance for development planning and policy making. There is a number of variables that differentiate the population of these two areas such as the type of insertion in the productive system of the country, the standard of living, the access to services, type of households, customs, etc.

31. Definitions of what is urban and rural vary from country to country, but population size is the main criterion, often combined with additional criteria such as population density and the percentage of the labor force in agricultural employment. Cambodia is not an exception. As a

[16] For a clear description of the *demographic bonus* see: Xizhe Peng and Yuan Cheng, 2005. *Harvesting the demographic bonus*, Asian Population Studies 1, pp. 189-205.

result of a recent study, communes with the following characteristics are considered as urban[17]: (i) population density exceeding 200 per km^2, (ii) Percentage of the male employment in agriculture bellow 50% and (iii) total population of the commune exceeding 2,000.

32. **Table 15** shows the urban and rural populations adjusted to the national base population (corresponding to 1 July 2008). This adjustment was done using the PAS worksheet CTBL32 cited above. These are the base or initial populations for the urban and rural projections.

33. The urban population was projected first. It was done by using the component method and the RUP program. The rural population was projected using a different approach but equivalent to the component method. This method will be described latter.

34. **Table 16** shows the initial life table used in the projection of the urban population. The life expectancy for 2007 was obtained using the infant mortality estimated in the mortality and fertility report previously cited: 34 deaths per 1,000 births. Then, using the MORTPAK program COMPAR, also cited above, and with the North mortality model, the corresponding life expectancies at birth by sex were estimated (67.50 years for males and 69,80 years for females).

35. **Table 17** shows the estimated and projected life expectancy at births for urban areas. It was assumed that mortality will experience a logistic trend in the future. To establish the logistic trend at least one more value was necessary. This value was calculated on the basis of the life expectancy at birth corresponding to the infant mortality expected for 2015 in the Millennium Development Goals. According to previous calculations, infant mortality should decline by approximately 5% between 2007 and 2015. This decline was applied to the urban infant mortality rate (by sex) estimated for 2007 and then, using the result, life expectancy at birth was estimated. The values for 2015 were 70.84 years for males and 73.28 years for females. The upper asymptotes used to establish the logistic were 80 for males and 85 for females; the lower asymptotes were 20 years for both males and females. Although less information was used to establish this trend as compare to the national population, this projected mortality is plausible and probable.

36. The estimate of urban fertility is presented in **Table 18**. It was also assumed that fertility in the future will follow a logistic trend. In this case four intermediate values were used to establish the logistic curve: 3.1, 2.8 and 2.2. They correspond to the TFR estimated in the 2000 and 2005 Cambodian Demographic and Health Survey and the 2008 Census, respectively[18]. TFRs of 6.0 and 1.8 were used as the upper and lower asymptote, respectively. Notice that the replacement fertility level, discussed above, has already been reached in urban areas. It is expected a below-replacement fertility by 2015. Fertility has declined very rapid in Cambodia, especially in urban

[17] National Institute of Statistics, 2009. *Report 2, Spatial Distribution and Growth of Population in Cambodia*, General Population Census of Cambodia 2008, Phnom Penh.

[18] National Institute of Statistics, op. cit., 2010

areas. This trend is certainly reliable since in has been documented by independent estimates and measures[19]. A major undertaking now is to provide substantiated explanations. Anyway, the trend proposed here is quite likely since once fertility has reached such low levels, an increase is unlikely as it is a larger further decline.

37. The age-structure of fertility, measured by the ASFR, used by the initial year of the projection period was that estimated using the 2008 Census data and that for the end of the projection period, the distribution corresponding to the Asian low fertility model (TFR=2) of the United Nations. The respective data is presented in **Table 19**. The program RUP requires ASFR for the initial year of the projection and it is convenient to include those expected for the last years, which will permit to establish a trend.

38. One of the most important components of the demographic dynamic of urban populations is migration. In the case of the overall urban population, it is usually rural out-migration. **Table 20** shows the annual net migration in urban and rural areas. Net migration is the difference between in-migrants and out-migrants. A positive value indicates that the area is gaining population by migration and a negative value that the area is losing population. In this case, urban areas are gaining and rural are losing. There is some urban to rural migration but rural to urban is much larger. The numbers presented in **Table 20** correspond to the absolute number of net migrants and refer to annual values. Specifically, the figures correspond to the average annual migrants during the 5 years prior to the census. Note that annual number of migrants is being used and not migration rates. The reason is that it is easier to process absolute numbers than rates in population projections when a program such as RUP is being used. Also note that *number of net migrants* or *net migrant* is an abstract idea. It does not correspond to persons, but to the result of an arithmetic operation. Some demographers feel uncomfortable working with such an intangible concept and, in fact, absolute net migrant is not an appropriate concept for migration analysis. However, it is quite operational for population projections.

39. A rapid look at the distribution of net migrants by age indicates that migration take place mainly between ages 15 and 30 years, suggesting that the main reasons for migration are work-related. Notice also that female migrants outnumber male migrants and the number is particularly large in the age group 20-24. Many rural young, single females leave rural areas, most likely, in search of urban employment. It would be important to know whether this is an individual decision or a family economic strategy. A second major issue here is the degree of vulnerability of these women migrants in the urban context. Much research is needed in this area. It is relevant to notice, however, that also some family migration take place as suggested by the number of net children migrants. This aspect of migration also represents a social challenge.

40. Regarding the projection of urban net migration, it is assumed that the number of net migrants by age groups and sex will continue being the same during the entire projection period. This mean that, although numbers will remain constant, migration rates will decline since the population size

[19] Ibid, Table 3

is increasing. This trend is likely to occur because urban investments have been an important part of Cambodia's recent economic development and cities appear to have provided employment opportunities. Although this trend may continue, it is likely that the pace of migration declines somewhat in the future. However, this slow down is not expected to be substantial as it is indicated further by the urban rate of growth.

41. As mentioned above, the projection of the urban population was conducted using the cohort component method and the program utilized was RUP. The results of this projection and the projection of the rural population are presented as a summary in **Table 21** and the complete results in **Appendices B1** and **B2**. Before going over the results, the projection of the rural population is described.

42. One of the important features of the program RUP is its capacity to project a third area when two areas are calculated. For example, if the urban and rural populations have been projected independently, a RUP sub-program call RUPAGG can aggregate or sum these two projections and get a new one, which should be the national projection. It can also obtain a projection by difference or as a complement; that is, having the national projection and the urban projection, RUPAGG can produce the rural projection. This program was used here to project the rural population. In other words, the rural population was projected as a difference between the national projection and the urban projection

43. The output of RUPAGG is not only the population by age and sex but also the implicit values of the components: mortality, fertility and migration indicators. **Table 22** shows the TFR estimated for 2007 and that calculated by RUPAGG for the next year (2008). The values are quite consistent. The table also shows the TFR and the life expectancies at birth projected for rural areas. They seem quite plausible and consistent, considering the national and urban projections, indicating that the use of the program is appropriate.

44. There is an important aspect in these projections that it is convenient to examine. According to this exercise, the urban population will grow more rapid than the rural one. Between 2008 and 2030 the urban population will double while the rural population will grow by only 14.2%. By the end of the projection period urban areas will be experiencing an annual growth of 2.22% while rural areas of only 0.25%. In general the growth in urban areas will be caused mainly by migration. For example, in year 2030, 46% of the urban growth will be caused by natural increase (difference between births and deaths) and 54% by net migration[20]. The trend projected here is quite plausible since this has been the experience of most developing countries during the second half of the past century and the first decade of de present century[21].

[20] In 2008, 40% of the urban growth can be attributed to natural increase and 60% to net migration. The differences can be explained by the relative decline or rural out-migration.

[21] See, for example, Weeks, J. R. 2002. *Population, an Introduction to Concepts and Issues* (eighth edition), Wadsworth.

POPULATION PROJECTIONS BY PROVINCES

45. Conducting population projections by sub-areas, such as provinces, is important because the different sub-areas of a country usually have dissimilar densities, unequal levels of development, diverse forms of insertion in the national economy, different natural resources and assorted problems that may range from those related to the environment to natural disasters. Regional planning is directed, precisely, to the design of plans and programs that consider the specific characteristics of a region, zone, area or its administrative equivalent. Ideally, regional planning should harmonize national with local development, that is, generate national development through the progress in the different parts of the country. The magnitude of the population in different geographic or administrative units, its structure and demographic dynamic are essential inputs to regional planning exercises.

46. It is important to point out that the results of the projection of the population of sub-areas are less reliable, or more uncertain, than those obtained in a national projection. This is mainly the result of the difficulties associated with projecting internal migration. In fact, this is often an important component of population growth or decline among the subdivisions of a country. Therefore, a major issue concerning population projections among regions, provinces or districts is the projection of internal migration.

47. Cambodia is divided into 24 provinces. **Table 23** shows the base populations for the provincial projections that is, the population of the provinces for the middle of the year 2008. In other words, it shows the sum of the provincial populations conciliated with the national base population. The operation, as in the case of the urban-rural migration was done with the PAS worksheet CTBL32.

48. The projection of the level of fertility (TFR) was done using a logistic function. Four TFRs were used as intermediate points to establish the logistics. The sources were the 1998 Census, the 2000 and 2005 DHS and the 2008 Census[22]. The respective reference dates for the TFRs are years 1995, 1997, 2003 and 2007[23]. As upper asymptotes a TFR of 7 was used and as a lower asymptotes a TFR of 2. The only exception was Phnom Penh. Considering its lower fertility level and past trends the two asymptotes utilized were TFRs of 5.5 and 1.60. The results of this exercise are presented in **Table 24**.

49. The set of panels in **Table 25** shows the projection of the ASFR for the end of the projection period. As mentioned earlier, as fertility decline, the age schedule changes. In this case, as in the other projections, it was also assumed that the pattern of fertility by 2030 in all districts will be that corresponding to the lowest level of the Asian Model age structure of the UN fertility models. The first column in the panels in **Table 25** shows the ASFRs according to the 2008 Census

[22] See National Institute of Statistics, op. cit. 2010, p.22.

[23] As suggested previously, the date of fertility, and in particular TFR, measured by a census or survey corresponds to one or more years previous to the date of the census or survey.

estimates, the second column indicates the fertility model (expressed in proportions) and the third column shows the ASFR corresponding to the TFR projected for year 2030.

50. **Table 26** shows the estimate of infant mortality and the projection of life expectancy at birth for each province. The first three columns show the births and the deaths according to the 2008 Census (questions on deaths and births during the past 12 month) and the respective IMR. The fourth column shows the IMRs adjusted by a factor suggested in the mortality and fertility report. This factor is the ratio 60/58[24]. The following two columns show the life expectancy at births corresponding to the IMR (according to the Coale-Demeany North model life table) and the next two columns the life expectancy at birth corresponding to the decline in infant mortality expected to 2015 according to the Millennium Development Goals. The projection of the life expectancies at births in the provinces was done using a logistic with these two values (for years 2007 and 2015) as the intermediate points and an upper asymptote of 85 years and a lower asymptote of 25 years. The only exception was Ratanak Kiri. The estimated infant mortality and subsequent life expectancy at birth are too low. There appear to be a serious overestimate of infant mortality. Therefore, for this province the mortality values of the neighbor province of Mondul Kiri were used (life table and projected life expectancy at birth).

51. The life tables corresponding to the life expectancies at births for each province are presented in **Table 27**. They were calculated from the life expectancies at birth using the program COMPAR from the software MORTPAK cited earlier. It is relevant to remember that these life tables establish the pattern of mortality during the projection period.

52. Some explanation of the estimates of internal migration was given in the section urban-rural projections. It was measured using the questions on previous residence and duration of stay in the present place of residence. The number of in-migrants and out-migrants during the five years prior to the census by age groups and sex was tabulated for each province. Net migration was calculated and the input used for the initial projection year was the average annual net migration during the five years previous to the census (see **Table 28**). It was assumed that the number of net migrants by age groups and sex will continue being the same during the entire projection period. This was the approach used in urban-rural projection. Although numbers will remain constant, migration rates will decline since the population size is increasing. This trend is likely to occur because provinces that attract population because better economic conditions, more jobs or resources are likely to lose their comparative advantages because of the population pressure caused by in-migration over employment or resources. Similarly, provinces that tend to lose population tend to experience a decline in the pace or out-movements. These propositions do not mean that several factors may change during the projection period and some districts that are losing population become poles of attraction or districts that are gaining population continue doing so and even increase their capacity to absorb people. However, because evidence on those

[24] For an explanation of this correction factor see National Institute of Statistics, op. cit. 2010, p. 31.

trends is not available, it is not convenient to assume erratic tendencies. The usual approach is to assume a slow decline in the recently observed trends.

53. Hence, using the previously presented projected data on mortality, fertility and net migration, the population of each province was projected. As in the previous projections, the cohort-component method was used and the software RUP was the program that was utilized.

54. In order to ensure internal consistency between the sum of the provincial projections and the national projection, a final prorating step needs to be conducted. This procedure involves adjusting the sum of the provincial age-sex-specific population to conform to the national level projection. It is the same operation done to conciliate the census provincial populations with the national base population. It was done with the PAS worksheet CTBL32.

55. The results of the provincial projections, already conciliated with the national projections, are presented in **Table 29** and **Appendices C1** and **C2**. The first appendix shows the population by age groups and sex and the second one the population by sex and single years of age. The projection by single ages was obtained by splitting the 5-years age groups in the original projection using the Beers formulas previously cited.

56. Particularly interesting are some results presented in **Table 29**. All provinces will continue exhibiting some growth. The exceptions are two: Kampong Cham and to a lesser extent Prey Veng. The prevalence of positive rate of growth in most provinces is the result of past high fertility rates, which enlarged substantially the female population in reproductive age. In spite of fertility decline the number of births which continue to surpass the number of deaths and, in some cases, the large number of out-migrants. However, most provinces the rate of growth is expected to diminish. The largest growth is to be observed in Pailin, Oddar Meanchey, Kep and Phnom Penh, although only in Kep the rates will experience a growth.

57. Another important issue is to examine whether or not the assumed demographic dynamic will result in a redistribution of the population and how significant this will be. In spite of substantial differences in the rate of growth, a redistribution of the population from the beginning of the present decade to the end of the next will not be substantial. The main reason of this feature is the limited time span of the projection period and the fact that, at present, the districts do not exhibit major population concentrations. For example, except for Phnom Penh, no other district contains more than 10% of the population.

58. There are other issues that deserve further analyses. An important one is the analysis of the age composition of the population in the provinces. According to **Table 29**, the age structure in the different provinces is indicating a slow process of ageing as indicated by the median age. The impact of these changes in the socio-economic structure of the provinces is a quite important issue for planners and policy makers. As mentioned above, the size of the labor force to be absorbed by the labor market, school and health services needs as well as housing demand are quite important issues for the regional governments.

Population projection for Cambodia and provinces, population by sex and selected indicators

YEAR	CAMBODIA					
	TOTAL	MALE	FEMALE	ANNUAL GROWTH	SEX RATIO	MEDIAN AGE
2008	13,868,227	6,745,592	7,122,635		94.7	21.9
2009	14,085,324	6,859,756	7,225,568	1.57	94.9	22.3
2010	14,302,779	6,973,994	7,328,785	1.54	95.2	22.6
2011	14,521,275	7,088,691	7,432,584	1.53	95.4	23.0
2012	14,741,414	7,204,166	7,537,248	1.52	95.6	23.4
2013	14,962,591	7,320,112	7,642,479	1.50	95.8	23.8
2014	15,184,116	7,436,178	7,747,938	1.48	96.0	24.2
2015	15,405,157	7,551,944	7,853,213	1.46	96.2	24.6
2016	15,626,444	7,667,790	7,958,654	1.44	96.3	25.0
2017	15,848,495	7,783,987	8,064,508	1.42	96.5	25.4
2018	16,069,921	7,899,824	8,170,097	1.40	96.7	25.8
2019	16,289,270	8,014,562	8,274,708	1.36	96.9	26.2
2020	16,505,156	8,127,496	8,377,660	1.33	97.0	26.6
2021	16,717,422	8,238,593	8,478,829	1.29	97.2	27.1
2022	16,925,995	8,347,859	8,578,136	1.25	97.3	27.5
2023	17,129,834	8,454,760	8,675,074	1.20	97.5	27.9
2024	17,327,917	8,558,773	8,769,144	1.16	97.6	28.3
2025	17,519,272	8,659,399	8,859,873	1.10	97.7	28.7
2026	17,704,090	8,756,659	8,947,431	1.05	97.9	29.1
2027	17,883,061	8,850,832	9,032,229	1.01	98.0	29.5
2028	18,056,858	8,942,266	9,114,592	0.97	98.1	29.9
2029	18,226,073	9,031,264	9,194,809	0.94	98.2	30.3
2030	18,390,683	9,117,812	9,272,871	0.90	98.3	30.7

YEAR	Banteay Meanchey						
	TOTAL	MALE	FEMALE	ANNUAL GROWTH	SEX RATIO	MEDIAN AGE	% OF THE TOTAL
2008	701,786	343,401	358,385		95.8	21.7	5.1
2009	715,970	350,806	365,164	2.02	96.1	22.1	5.1
2010	730,637	358,445	372,192	2.05	96.3	22.6	5.1
2011	745,618	366,237	379,382	2.05	96.5	23.0	5.1
2012	760,770	374,108	386,662	2.03	96.8	23.5	5.2
2013	776,051	382,038	394,013	2.01	97.0	24.0	5.2
2014	791,408	390,000	401,408	1.98	97.2	24.4	5.2
2015	806,780	397,963	408,817	1.94	97.3	24.9	5.2
2016	822,187	405,938	416,249	1.91	97.5	25.3	5.3
2017	837,642	413,929	423,712	1.88	97.7	25.8	5.3
2018	853,065	421,898	431,167	1.84	97.9	26.2	5.3
2019	868,377	429,802	438,575	1.79	98.0	26.7	5.3
2020	883,494	437,600	445,895	1.74	98.1	27.1	5.4
2021	898,389	445,279	453,110	1.69	98.3	27.5	5.4
2022	913,040	452,832	460,208	1.63	98.4	28.0	5.4
2023	927,392	460,230	467,162	1.57	98.5	28.4	5.4
2024	941,388	467,443	473,945	1.51	98.6	28.8	5.4
2025	954,979	474,447	480,532	1.44	98.7	29.2	5.5
2026	968,181	481,245	486,936	1.38	98.8	29.6	5.5
2027	981,042	487,858	493,184	1.33	98.9	30.0	5.5
2028	993,625	494,317	499,308	1.28	99.0	30.4	5.5
2029	1,005,933	500,624	505,309	1.24	99.1	30.8	5.5
2030	1,017,936	506,763	511,173	1.19	99.1	31.2	5.5

YEAR	Battambang						
	TOTAL	MALE	FEMALE	ANNUAL GROWTH	SEX RATIO	MEDIAN AGE	% OF THE TOTAL
2008	1,061,336	524,188	537,148		97.6	21.0	7.7
2009	1,082,880	535,724	547,156	2.03	97.9	21.5	7.7
2010	1,104,520	547,295	557,225	2.00	98.2	21.9	7.7
2011	1,126,345	558,945	567,400	1.98	98.5	22.4	7.8
2012	1,148,444	570,720	577,724	1.96	98.8	22.8	7.8
2013	1,170,748	582,584	588,165	1.94	99.1	23.3	7.8
2014	1,193,167	594,491	598,676	1.91	99.3	23.8	7.9
2015	1,215,605	606,392	609,213	1.88	99.5	24.2	7.9
2016	1,238,103	618,309	619,794	1.85	99.8	24.7	7.9
2017	1,260,688	630,254	630,434	1.82	100.0	25.1	8.0
2018	1,283,223	642,158	641,066	1.79	100.2	25.6	8.0
2019	1,305,562	653,946	651,616	1.74	100.4	26.0	8.0
2020	1,327,559	665,545	662,014	1.68	100.5	26.5	8.0
2021	1,349,178	676,941	672,237	1.63	100.7	26.9	8.1
2022	1,370,394	688,125	682,270	1.57	100.9	27.3	8.1
2023	1,391,110	699,046	692,064	1.51	101.0	27.8	8.1
2024	1,411,228	709,656	701,572	1.45	101.2	28.2	8.1
2025	1,430,656	719,906	710,749	1.38	101.3	28.6	8.2
2026	1,449,411	729,801	719,611	1.31	101.4	29.1	8.2
2027	1,467,575	739,375	728,200	1.25	101.5	29.5	8.2
2028	1,485,232	748,672	736,560	1.20	101.6	29.9	8.2
2029	1,502,438	757,722	744,716	1.16	101.7	30.3	8.2
2030	1,519,185	766,519	752,666	1.11	101.8	30.6	8.3

YEAR	Kampong Cham						
	TOTAL	MALE	FEMALE	ANNUAL GROWTH	SEX RATIO	MEDIAN AGE	% OF THE TOTAL
2008	1,739,254	847,500	891,754		95.0	22.2	12.5
2009	1,742,276	849,974	892,302	0.17	95.3	22.3	12.4
2010	1,744,155	851,843	892,312	0.11	95.5	22.6	12.2
2011	1,745,054	853,195	891,858	0.05	95.7	22.8	12.0
2012	1,745,184	854,141	891,043	0.01	95.9	23.2	11.8
2013	1,744,579	854,700	889,878	-0.03	96.0	23.5	11.7
2014	1,743,280	854,894	888,386	-0.07	96.2	23.9	11.5
2015	1,741,350	854,755	886,594	-0.11	96.4	24.3	11.3
2016	1,739,002	854,393	884,609	-0.13	96.6	24.7	11.1
2017	1,736,393	853,885	882,508	-0.15	96.8	25.1	11.0
2018	1,733,442	853,192	880,250	-0.17	96.9	25.5	10.8
2019	1,730,042	852,259	877,782	-0.20	97.1	26.0	10.6
2020	1,726,096	851,039	875,057	-0.23	97.3	26.5	10.5
2021	1,721,623	849,545	872,077	-0.26	97.4	26.9	10.3
2022	1,716,628	847,789	868,839	-0.29	97.6	27.4	10.1
2023	1,711,003	845,713	865,289	-0.33	97.7	28.0	10.0
2024	1,704,626	843,258	861,369	-0.37	97.9	28.5	9.8
2025	1,697,381	840,362	857,019	-0.43	98.1	29.0	9.7
2026	1,689,252	837,012	852,240	-0.48	98.2	29.5	9.5
2027	1,680,276	833,222	847,054	-0.53	98.4	30.1	9.4
2028	1,670,485	829,009	841,475	-0.58	98.5	30.6	9.3
2029	1,659,890	824,381	835,509	-0.63	98.7	31.2	9.1
2030	1,648,438	819,310	829,128	-0.69	98.8	31.7	9.0

YEAR	Kampong Chhnang						
	TOTAL	MALE	FEMALE	ANNUAL GROWTH	SEX RATIO	MEDIAN AGE	% OF THE TOTAL
2008	488,999	235,002	253,997		92.5	20.9	3.5
2009	496,890	239,329	257,562	1.61	92.9	21.2	3.5
2010	504,805	243,657	261,148	1.59	93.3	21.5	3.5
2011	512,667	247,953	264,714	1.56	93.7	21.8	3.5
2012	520,398	252,179	268,219	1.51	94.0	22.1	3.5
2013	527,991	256,331	271,659	1.46	94.4	22.5	3.5
2014	535,439	260,406	275,033	1.41	94.7	22.9	3.5
2015	542,731	264,399	278,332	1.36	95.0	23.3	3.5
2016	549,913	268,332	281,581	1.32	95.3	23.6	3.5
2017	557,017	272,222	284,796	1.29	95.6	24.0	3.5
2018	563,997	276,045	287,953	1.25	95.9	24.4	3.5
2019	570,797	279,772	291,025	1.21	96.1	24.9	3.5
2020	577,366	283,378	293,988	1.15	96.4	25.3	3.5
2021	583,716	286,870	296,846	1.10	96.6	25.7	3.5
2022	589,856	290,255	299,601	1.05	96.9	26.1	3.5
2023	595,744	293,511	302,234	1.00	97.1	26.6	3.5
2024	601,341	296,617	304,724	0.94	97.3	27.0	3.5
2025	606,608	299,554	307,054	0.88	97.6	27.4	3.5
2026	611,551	302,323	309,229	0.82	97.8	27.9	3.5
2027	616,198	304,934	311,264	0.76	98.0	28.3	3.4
2028	620,555	307,392	313,163	0.71	98.2	28.7	3.4
2029	624,672	309,722	314,949	0.66	98.3	29.1	3.4
2030	628,577	311,939	316,637	0.63	98.5	29.5	3.4

YEAR	Kampong Speu						
	TOTAL	MALE	FEMALE	ANNUAL GROWTH	SEX RATIO	MEDIAN AGE	% OF THE TOTAL
2008	742,235	360,788	381,447		94.6	20.7	5.4
2009	751,231	365,708	385,524	1.21	94.9	21.0	5.3
2010	759,711	370,354	389,357	1.13	95.1	21.4	5.3
2011	767,827	374,807	393,020	1.07	95.4	21.7	5.3
2012	775,704	379,130	396,574	1.03	95.6	22.1	5.3
2013	783,333	383,320	400,013	0.98	95.8	22.5	5.2
2014	790,711	387,375	403,336	0.94	96.0	23.0	5.2
2015	797,830	391,291	406,540	0.90	96.2	23.4	5.2
2016	804,796	395,121	409,675	0.87	96.4	23.9	5.2
2017	811,696	398,909	412,787	0.86	96.6	24.3	5.1
2018	818,486	402,634	415,852	0.84	96.8	24.8	5.1
2019	825,115	406,269	418,847	0.81	97.0	25.2	5.1
2020	831,537	409,791	421,746	0.78	97.2	25.7	5.0
2021	837,783	413,220	424,563	0.75	97.3	26.2	5.0
2022	843,882	416,572	427,311	0.73	97.5	26.7	5.0
2023	849,778	419,818	429,960	0.70	97.6	27.2	5.0
2024	855,411	422,929	432,482	0.66	97.8	27.7	4.9
2025	860,721	425,874	434,847	0.62	97.9	28.1	4.9
2026	865,696	428,643	437,053	0.58	98.1	28.6	4.9
2027	870,333	431,232	439,101	0.54	98.2	29.1	4.9
2028	874,611	433,631	440,980	0.49	98.3	29.6	4.8
2029	878,557	435,854	442,703	0.45	98.5	30.0	4.8
2030	882,184	437,908	444,276	0.41	98.6	30.5	4.8

YEAR	Kampong Thom						
	TOTAL	MALE	FEMALE	ANNUAL GROWTH	SEX RATIO	MEDIAN AGE	% OF THE TOTAL
2008	653,684	318,566	335,118		95.1	20.7	4.7
2009	659,168	321,846	337,323	0.84	95.4	21.0	4.7
2010	664,212	324,897	339,315	0.77	95.8	21.3	4.6
2011	668,876	327,749	341,127	0.70	96.1	21.6	4.6
2012	673,247	330,446	342,800	0.65	96.4	22.0	4.6
2013	677,340	332,998	344,342	0.61	96.7	22.4	4.5
2014	681,180	335,416	345,764	0.57	97.0	22.8	4.5
2015	684,795	337,715	347,081	0.53	97.3	23.3	4.4
2016	688,305	339,955	348,350	0.51	97.6	23.7	4.4
2017	691,803	342,186	349,618	0.51	97.9	24.2	4.4
2018	695,256	344,388	350,868	0.50	98.2	24.7	4.3
2019	698,621	346,541	352,080	0.48	98.4	25.1	4.3
2020	701,861	348,627	353,234	0.46	98.7	25.6	4.3
2021	705,001	350,661	354,340	0.45	99.0	26.1	4.2
2022	708,060	352,659	355,400	0.43	99.2	26.7	4.2
2023	710,988	354,595	356,393	0.41	99.5	27.2	4.2
2024	713,728	356,437	357,291	0.39	99.8	27.7	4.1
2025	716,222	358,156	358,066	0.35	100.0	28.2	4.1
2026	718,447	359,734	358,713	0.31	100.3	28.7	4.1
2027	720,397	361,160	359,236	0.27	100.5	29.2	4.0
2028	722,060	362,431	359,630	0.23	100.8	29.7	4.0
2029	723,424	363,538	359,886	0.19	101.0	30.2	4.0
2030	724,456	364,465	359,991	0.14	101.2	30.7	3.9

YEAR	Kampot						
	TOTAL	MALE	FEMALE	ANNUAL GROWTH	SEX RATIO	MEDIAN AGE	% OF THE TOTAL
2008	606,516	294,130	312,386		94.2	21.2	4.4
2009	608,710	295,649	313,061	0.36	94.4	21.5	4.3
2010	610,926	297,160	313,765	0.36	94.7	21.8	4.3
2011	613,305	298,738	314,567	0.39	95.0	22.2	4.2
2012	615,944	300,432	315,512	0.43	95.2	22.6	4.2
2013	618,851	302,247	316,604	0.47	95.5	23.0	4.1
2014	622,042	304,190	317,852	0.52	95.7	23.4	4.1
2015	625,526	306,266	319,260	0.56	95.9	23.8	4.1
2016	629,383	308,517	320,866	0.62	96.2	24.3	4.0
2017	633,671	310,971	322,700	0.68	96.4	24.7	4.0
2018	638,360	313,613	324,747	0.74	96.6	25.2	4.0
2019	643,415	316,426	326,989	0.79	96.8	25.6	3.9
2020	648,799	319,391	329,407	0.84	97.0	26.1	3.9
2021	654,515	322,513	332,002	0.88	97.1	26.5	3.9
2022	660,560	325,792	334,768	0.92	97.3	27.0	3.9
2023	666,893	329,206	337,687	0.96	97.5	27.4	3.9
2024	673,469	332,734	340,736	0.99	97.7	27.9	3.9
2025	680,238	336,348	343,890	1.01	97.8	28.3	3.9
2026	687,197	340,045	347,151	1.02	98.0	28.7	3.9
2027	694,350	343,826	350,524	1.04	98.1	29.1	3.9
2028	701,685	347,684	354,001	1.06	98.2	29.5	3.9
2029	709,227	351,631	357,596	1.07	98.3	29.9	3.9
2030	716,987	355,673	361,314	1.09	98.4	30.3	3.9

YEAR	Kandal						
	TOTAL	MALE	FEMALE	ANNUAL GROWTH	SEX RATIO	MEDIAN AGE	% OF THE TOTAL
2008	1,309,915	634,276	675,639		93.9	22.8	9.4
2009	1,327,263	643,327	683,936	1.32	94.1	23.1	9.4
2010	1,345,353	652,748	692,605	1.36	94.2	23.5	9.4
2011	1,364,065	662,482	701,583	1.39	94.4	23.9	9.4
2012	1,383,298	672,482	710,816	1.41	94.6	24.3	9.4
2013	1,402,961	682,701	720,260	1.42	94.8	24.7	9.4
2014	1,422,940	693,082	729,859	1.42	95.0	25.1	9.4
2015	1,443,102	703,556	739,546	1.42	95.1	25.5	9.4
2016	1,463,411	714,106	749,306	1.41	95.3	25.9	9.4
2017	1,483,827	724,708	759,119	1.40	95.5	26.3	9.4
2018	1,504,195	735,286	768,909	1.37	95.6	26.8	9.4
2019	1,524,360	745,759	778,601	1.34	95.8	27.2	9.4
2020	1,544,180	756,055	788,125	1.30	95.9	27.6	9.4
2021	1,563,607	766,154	797,453	1.26	96.1	28.1	9.4
2022	1,582,612	776,047	806,565	1.22	96.2	28.5	9.4
2023	1,601,111	785,691	815,420	1.17	96.4	28.9	9.3
2024	1,619,033	795,051	823,983	1.12	96.5	29.3	9.3
2025	1,636,320	804,096	832,224	1.07	96.6	29.8	9.3
2026	1,653,018	812,843	840,174	1.02	96.7	30.2	9.3
2027	1,669,236	821,343	847,893	0.98	96.9	30.6	9.3
2028	1,685,123	829,670	855,453	0.95	97.0	31.0	9.3
2029	1,700,794	837,884	862,910	0.93	97.1	31.4	9.3
2030	1,716,290	846,006	870,284	0.91	97.2	31.8	9.3

YEAR	Koh Kong						
	TOTAL	MALE	FEMALE	ANNUAL GROWTH	SEX RATIO	MEDIAN AGE	% OF THE TOTAL
2008	121,624	61,416	60,208		102.0	20.6	0.9
2009	125,350	63,427	61,922	3.06	102.4	21.1	0.9
2010	129,153	65,473	63,680	3.03	102.8	21.6	0.9
2011	133,047	67,559	65,488	3.01	103.2	22.0	0.9
2012	137,033	69,687	67,346	3.00	103.5	22.5	0.9
2013	141,110	71,855	69,255	2.97	103.8	23.0	0.9
2014	145,273	74,061	71,212	2.95	104.0	23.5	1.0
2015	149,516	76,302	73,213	2.92	104.2	24.0	1.0
2016	153,846	78,582	75,264	2.90	104.4	24.5	1.0
2017	158,270	80,903	77,367	2.88	104.6	24.9	1.0
2018	162,771	83,256	79,514	2.84	104.7	25.4	1.0
2019	167,326	85,632	81,695	2.80	104.8	25.8	1.0
2020	171,920	88,020	83,900	2.75	104.9	26.2	1.0
2021	176,552	90,422	86,129	2.69	105.0	26.7	1.1
2022	181,222	92,839	88,383	2.65	105.0	27.1	1.1
2023	185,915	95,262	90,654	2.59	105.1	27.5	1.1
2024	190,615	97,682	92,933	2.53	105.1	27.9	1.1
2025	195,307	100,094	95,213	2.46	105.1	28.3	1.1
2026	199,995	102,497	97,498	2.40	105.1	28.7	1.1
2027	204,685	104,894	99,791	2.35	105.1	29.1	1.1
2028	209,381	107,287	102,094	2.29	105.1	29.4	1.2
2029	214,089	109,679	104,411	2.25	105.0	29.8	1.2
2030	218,811	112,070	106,740	2.21	105.0	30.1	1.2

YEAR	Kratie						
	TOTAL	MALE	FEMALE	ANNUAL GROWTH	SEX RATIO	MEDIAN AGE	% OF THE TOTAL
2008	330,480	164,753	165,727		99.4	20.8	2.4
2009	337,141	168,362	168,779	2.02	99.8	21.0	2.4
2010	343,851	171,983	171,867	1.99	100.1	21.2	2.4
2011	350,566	175,596	174,970	1.95	100.4	21.5	2.4
2012	357,249	179,180	178,069	1.91	100.6	21.8	2.4
2013	363,883	182,727	181,156	1.86	100.9	22.1	2.4
2014	370,450	186,228	184,222	1.80	101.1	22.4	2.4
2015	376,941	189,678	187,263	1.75	101.3	22.7	2.4
2016	383,382	193,090	190,292	1.71	101.5	23.1	2.5
2017	389,793	196,474	193,319	1.67	101.6	23.4	2.5
2018	396,156	199,820	196,336	1.63	101.8	23.8	2.5
2019	402,445	203,115	199,330	1.59	101.9	24.2	2.5
2020	408,639	206,348	202,291	1.54	102.0	24.6	2.5
2021	414,756	209,531	205,225	1.50	102.1	25.0	2.5
2022	420,812	212,672	208,140	1.46	102.2	25.4	2.5
2023	426,789	215,762	211,027	1.42	102.2	25.8	2.5
2024	432,668	218,792	213,876	1.38	102.3	26.2	2.5
2025	438,429	221,751	216,678	1.33	102.3	26.7	2.5
2026	444,084	224,645	219,439	1.29	102.4	27.1	2.5
2027	449,657	227,483	222,174	1.25	102.4	27.5	2.5
2028	455,158	230,272	224,886	1.22	102.4	27.9	2.5
2029	460,594	233,014	227,580	1.19	102.4	28.4	2.5
2030	465,960	235,708	230,252	1.17	102.4	28.8	2.5

YEAR	Mondul Kiri						
	TOTAL	MALE	FEMALE	ANNUAL GROWTH	SEX RATIO	MEDIAN AGE	% OF THE TOTAL
2008	63,263	32,478	30,785		105.5	19.2	0.5
2009	65,727	33,794	31,933	3.90	105.8	19.8	0.5
2010	68,153	35,090	33,063	3.69	106.1	20.4	0.5
2011	70,587	36,386	34,201	3.57	106.4	21.0	0.5
2012	73,080	37,709	35,371	3.53	106.6	21.5	0.5
2013	75,615	39,048	36,566	3.47	106.8	22.1	0.5
2014	78,182	40,399	37,782	3.39	106.9	22.7	0.5
2015	80,771	41,757	39,014	3.31	107.0	23.2	0.5
2016	83,410	43,134	40,276	3.27	107.1	23.8	0.5
2017	86,124	44,545	41,580	3.25	107.1	24.3	0.5
2018	88,907	45,984	42,922	3.23	107.1	24.8	0.6
2019	91,750	47,449	44,302	3.20	107.1	25.2	0.6
2020	94,648	48,935	45,713	3.16	107.0	25.7	0.6
2021	97,607	50,446	47,161	3.13	107.0	26.1	0.6
2022	100,635	51,987	48,649	3.10	106.9	26.6	0.6
2023	103,725	53,553	50,172	3.07	106.7	27.0	0.6
2024	106,869	55,141	51,729	3.03	106.6	27.4	0.6
2025	110,063	56,748	53,315	2.99	106.4	27.7	0.6
2026	113,303	58,372	54,932	2.94	106.3	28.1	0.6
2027	116,593	60,015	56,579	2.90	106.1	28.4	0.7
2028	119,931	61,674	58,257	2.86	105.9	28.8	0.7
2029	123,312	63,349	59,963	2.82	105.6	29.1	0.7
2030	126,725	65,033	61,692	2.77	105.4	29.4	0.7

YEAR	Phnom Penh						
	TOTAL	MALE	FEMALE	ANNUAL GROWTH	SEX RATIO	MEDIAN AGE	% OF THE TOTAL
2008	1,374,451	647,577	726,874		89.1	24.7	9.9
2009	1,438,765	677,056	761,709	4.68	88.9	25.2	10.2
2010	1,504,361	707,320	797,042	4.56	88.7	25.8	10.5
2011	1,570,791	738,159	832,631	4.42	88.7	26.3	10.8
2012	1,637,473	769,288	868,186	4.25	88.6	26.8	11.1
2013	1,704,071	800,534	903,537	4.07	88.6	27.3	11.4
2014	1,770,131	831,668	938,463	3.88	88.6	27.7	11.7
2015	1,835,090	862,403	972,687	3.67	88.7	28.2	11.9
2016	1,898,407	892,463	1,005,944	3.45	88.7	28.7	12.1
2017	1,959,621	921,612	1,038,009	3.22	88.8	29.2	12.4
2018	2,018,312	949,634	1,068,678	3.00	88.9	29.6	12.6
2019	2,074,099	976,336	1,097,764	2.76	88.9	30.1	12.7
2020	2,126,617	1,001,530	1,125,087	2.53	89.0	30.6	12.9
2021	2,175,636	1,025,107	1,150,529	2.31	89.1	31.1	13.0
2022	2,221,011	1,046,999	1,174,011	2.09	89.2	31.5	13.1
2023	2,262,593	1,067,132	1,195,461	1.87	89.3	32.0	13.2
2024	2,300,287	1,085,457	1,214,831	1.67	89.4	32.6	13.3
2025	2,334,053	1,101,953	1,232,101	1.47	89.4	33.1	13.3
2026	2,364,023	1,116,677	1,247,346	1.28	89.5	33.6	13.4
2027	2,390,417	1,129,731	1,260,686	1.12	89.6	34.1	13.4
2028	2,413,511	1,141,253	1,272,258	0.97	89.7	34.7	13.4
2029	2,433,557	1,151,371	1,282,186	0.83	89.8	35.2	13.4
2030	2,450,717	1,160,169	1,290,548	0.71	89.9	35.8	13.3

YEAR	Preah Vihear						
	TOTAL	MALE	FEMALE	ANNUAL GROWTH	SEX RATIO	MEDIAN AGE	% OF THE TOTAL
2008	177,176	88,323	88,853		99.4	19.3	1.3
2009	180,013	89,798	90,215	1.60	99.5	19.7	1.3
2010	182,770	91,230	91,540	1.53	99.7	20.2	1.3
2011	185,509	92,651	92,858	1.50	99.8	20.7	1.3
2012	188,297	94,092	94,204	1.50	99.9	21.2	1.3
2013	191,104	95,539	95,566	1.49	100.0	21.7	1.3
2014	193,916	96,981	96,935	1.47	100.0	22.3	1.3
2015	196,714	98,412	98,302	1.44	100.1	22.8	1.3
2016	199,547	99,855	99,692	1.44	100.2	23.3	1.3
2017	202,460	101,333	101,127	1.46	100.2	23.9	1.3
2018	205,430	102,834	102,597	1.47	100.2	24.4	1.3
2019	208,445	104,351	104,094	1.47	100.2	24.9	1.3
2020	211,488	105,876	105,612	1.46	100.3	25.4	1.3
2021	214,576	107,419	107,157	1.46	100.2	25.9	1.3
2022	217,724	108,988	108,736	1.47	100.2	26.4	1.3
2023	220,916	110,574	110,342	1.47	100.2	26.8	1.3
2024	224,138	112,171	111,967	1.46	100.2	27.3	1.3
2025	227,372	113,770	113,602	1.44	100.1	27.7	1.3
2026	230,617	115,368	115,249	1.43	100.1	28.2	1.3
2027	233,879	116,969	116,910	1.41	100.1	28.6	1.3
2028	237,155	118,571	118,584	1.40	100.0	29.0	1.3
2029	240,430	120,166	120,263	1.38	99.9	29.4	1.3
2030	243,681	121,744	121,936	1.35	99.8	29.8	1.3

YEAR	Prey Veng						
	TOTAL	MALE	FEMALE	ANNUAL GROWTH	SEX RATIO	MEDIAN AGE	% OF THE TOTAL
2008	980,790	469,043	511,747		91.7	22.6	7.1
2009	980,732	469,910	510,823	-0.01	92.0	22.7	7.0
2010	980,671	470,743	509,928	-0.01	92.3	22.9	6.9
2011	980,667	471,575	509,091	0.00	92.6	23.1	6.8
2012	980,811	472,457	508,354	0.01	92.9	23.3	6.7
2013	981,199	473,437	507,763	0.04	93.2	23.6	6.6
2014	981,943	474,571	507,372	0.08	93.5	24.0	6.5
2015	983,163	475,922	507,240	0.12	93.8	24.3	6.4
2016	985,036	477,581	507,455	0.19	94.1	24.7	6.3
2017	987,689	479,610	508,079	0.27	94.4	25.1	6.2
2018	991,128	482,012	509,116	0.35	94.7	25.6	6.2
2019	995,340	484,782	510,557	0.42	95.0	26.0	6.1
2020	1,000,313	487,915	512,399	0.50	95.2	26.4	6.1
2021	1,006,084	491,430	514,654	0.58	95.5	26.9	6.0
2022	1,012,673	495,342	517,331	0.65	95.7	27.4	6.0
2023	1,020,035	499,628	520,407	0.73	96.0	27.9	6.0
2024	1,028,116	504,260	523,857	0.79	96.3	28.3	5.9
2025	1,036,847	509,201	527,646	0.85	96.5	28.8	5.9
2026	1,046,198	514,434	531,764	0.90	96.7	29.3	5.9
2027	1,056,147	519,941	536,206	0.95	97.0	29.7	5.9
2028	1,066,655	525,704	540,951	0.99	97.2	30.1	5.9
2029	1,077,718	531,720	545,998	1.04	97.4	30.5	5.9
2030	1,089,316	537,979	551,338	1.08	97.6	30.9	5.9

YEAR	Pursat						
	TOTAL	MALE	FEMALE	ANNUAL GROWTH	SEX RATIO	MEDIAN AGE	% OF THE TOTAL
2008	411,171	199,750	211,421		94.5	20.3	3.0
2009	416,046	202,564	213,482	1.19	94.9	20.7	3.0
2010	420,831	205,317	215,514	1.15	95.3	21.1	2.9
2011	425,704	208,103	217,602	1.16	95.6	21.6	2.9
2012	430,837	211,008	219,829	1.21	96.0	22.1	2.9
2013	436,202	214,020	222,182	1.25	96.3	22.6	2.9
2014	441,768	217,123	224,645	1.28	96.7	23.1	2.9
2015	447,504	220,300	227,204	1.30	97.0	23.6	2.9
2016	453,467	223,580	229,887	1.33	97.3	24.1	2.9
2017	459,703	226,987	232,716	1.38	97.5	24.6	2.9
2018	466,168	230,498	235,670	1.41	97.8	25.0	2.9
2019	472,811	234,085	238,726	1.43	98.1	25.5	2.9
2020	479,585	237,727	241,858	1.43	98.3	25.9	2.9
2021	486,491	241,424	245,066	1.44	98.5	26.4	2.9
2022	493,530	245,179	248,350	1.45	98.7	26.8	2.9
2023	500,675	248,979	251,697	1.45	98.9	27.2	2.9
2024	507,898	252,807	255,091	1.44	99.1	27.7	2.9
2025	515,170	256,650	258,520	1.43	99.3	28.1	2.9
2026	522,505	260,512	261,993	1.42	99.4	28.5	3.0
2027	529,933	264,406	265,527	1.42	99.6	28.8	3.0
2028	537,494	268,354	269,139	1.43	99.7	29.2	3.0
2029	545,209	272,366	272,843	1.44	99.8	29.5	3.0
2030	553,067	276,436	276,631	1.44	99.9	29.8	3.0

YEAR	Ratanak Kiri						
	TOTAL	MALE	FEMALE	ANNUAL GROWTH	SEX RATIO	MEDIAN AGE	% OF THE TOTAL
2008	155,773	78,796	76,977		102.4	19.1	1.1
2009	159,722	80,832	78,890	2.54	102.5	19.5	1.1
2010	163,137	82,591	80,546	2.14	102.5	20.1	1.1
2011	166,339	84,241	82,098	1.96	102.6	20.7	1.1
2012	169,609	85,924	83,686	1.97	102.7	21.3	1.2
2013	172,901	87,613	85,288	1.94	102.7	21.9	1.2
2014	176,192	89,298	86,894	1.90	102.8	22.4	1.2
2015	179,463	90,968	88,494	1.86	102.8	23.0	1.2
2016	182,759	92,646	90,114	1.84	102.8	23.5	1.2
2017	186,128	94,354	91,774	1.84	102.8	24.1	1.2
2018	189,558	96,087	93,471	1.84	102.8	24.6	1.2
2019	193,041	97,841	95,200	1.84	102.8	25.1	1.2
2020	196,570	99,611	96,959	1.83	102.7	25.6	1.2
2021	200,145	101,400	98,745	1.82	102.7	26.1	1.2
2022	203,766	103,206	100,560	1.81	102.6	26.6	1.2
2023	207,423	105,025	102,398	1.79	102.6	27.1	1.2
2024	211,104	106,850	104,254	1.77	102.5	27.5	1.2
2025	214,792	108,674	106,118	1.75	102.4	28.0	1.2
2026	218,482	110,494	107,989	1.72	102.3	28.4	1.2
2027	222,171	112,305	109,866	1.69	102.2	28.8	1.2
2028	225,854	114,107	111,747	1.66	102.1	29.2	1.3
2029	229,519	115,894	113,625	1.62	102.0	29.6	1.3
2030	233,141	117,651	115,490	1.58	101.9	30.0	1.3

YEAR	Siemreap						
	TOTAL	MALE	FEMALE	ANNUAL GROWTH	SEX RATIO	MEDIAN AGE	% OF THE TOTAL
2008	928,065	455,480	472,585		96.4	20.7	6.7
2009	951,553	467,868	483,685	2.53	96.7	21.2	6.8
2010	975,497	480,472	495,025	2.52	97.1	21.6	6.8
2011	999,703	493,184	506,519	2.48	97.4	22.0	6.9
2012	1,023,990	505,904	518,086	2.43	97.6	22.5	6.9
2013	1,048,281	518,593	529,689	2.37	97.9	22.9	7.0
2014	1,072,481	531,202	541,279	2.31	98.1	23.4	7.1
2015	1,096,482	543,678	552,804	2.24	98.3	23.8	7.1
2016	1,120,313	556,052	564,261	2.17	98.5	24.2	7.2
2017	1,144,006	568,355	575,651	2.11	98.7	24.7	7.2
2018	1,167,456	580,535	586,921	2.05	98.9	25.1	7.3
2019	1,190,554	592,534	598,019	1.98	99.1	25.5	7.3
2020	1,213,200	604,301	608,899	1.90	99.2	26.0	7.4
2021	1,235,423	615,846	619,577	1.83	99.4	26.4	7.4
2022	1,257,263	627,181	630,081	1.77	99.5	26.8	7.4
2023	1,278,650	638,272	640,378	1.70	99.7	27.2	7.5
2024	1,299,520	649,084	650,436	1.63	99.8	27.7	7.5
2025	1,319,807	659,584	660,223	1.56	99.9	28.1	7.5
2026	1,339,563	669,792	669,771	1.50	100.0	28.5	7.6
2027	1,358,878	679,749	679,128	1.44	100.1	28.9	7.6
2028	1,377,823	689,492	688,331	1.39	100.2	29.3	7.6
2029	1,396,441	699,042	697,400	1.35	100.2	29.7	7.7
2030	1,414,727	708,395	706,331	1.31	100.3	30.0	7.7

YEAR	Preah Sihanouk						
	TOTAL	MALE	FEMALE	ANNUAL GROWTH	SEX RATIO	MEDIAN AGE	% OF THE TOTAL
2008	229,205	114,680	114,525		100.1	21.8	1.7
2009	235,095	117,735	117,360	2.57	100.3	22.3	1.7
2010	241,154	120,872	120,282	2.58	100.5	22.8	1.7
2011	247,355	124,076	123,279	2.57	100.6	23.3	1.7
2012	253,654	127,324	126,330	2.55	100.8	23.7	1.7
2013	260,034	130,607	129,427	2.52	100.9	24.2	1.7
2014	266,470	133,913	132,557	2.47	101.0	24.7	1.8
2015	272,933	137,227	135,706	2.43	101.1	25.1	1.8
2016	279,419	140,545	138,874	2.38	101.2	25.6	1.8
2017	285,922	143,866	142,056	2.33	101.3	26.0	1.8
2018	292,404	147,170	145,234	2.27	101.3	26.5	1.8
2019	298,826	150,437	148,390	2.20	101.4	26.9	1.8
2020	305,149	153,646	151,503	2.12	101.4	27.3	1.8
2021	311,363	156,795	154,568	2.04	101.4	27.8	1.9
2022	317,462	159,882	157,580	1.96	101.5	28.2	1.9
2023	323,420	162,893	160,527	1.88	101.5	28.6	1.9
2024	329,215	165,817	163,398	1.79	101.5	29.0	1.9
2025	334,827	168,644	166,184	1.70	101.5	29.4	1.9
2026	340,266	171,376	168,890	1.62	101.5	29.7	1.9
2027	345,552	174,025	171,528	1.55	101.5	30.1	1.9
2028	350,703	176,598	174,105	1.49	101.4	30.4	1.9
2029	355,742	179,108	176,634	1.44	101.4	30.8	2.0
2030	360,684	181,562	179,122	1.39	101.4	31.1	2.0

YEAR	Stung Treng						
	TOTAL	MALE	FEMALE	ANNUAL GROWTH	SEX RATIO	MEDIAN AGE	% OF THE TOTAL
2008	115,610	57,594	58,016		99.3	19.7	0.8
2009	118,133	58,935	59,198	2.18	99.6	20.1	0.8
2010	120,463	60,172	60,291	1.97	99.8	20.6	0.8
2011	122,756	61,387	61,368	1.90	100.0	21.2	0.8
2012	125,166	62,659	62,507	1.96	100.2	21.7	0.8
2013	127,681	63,981	63,700	2.01	100.4	22.2	0.9
2014	130,287	65,346	64,941	2.04	100.6	22.8	0.9
2015	132,976	66,750	66,226	2.06	100.8	23.3	0.9
2016	135,778	68,207	67,571	2.11	100.9	23.8	0.9
2017	138,729	69,736	68,992	2.17	101.1	24.4	0.9
2018	141,813	71,330	70,483	2.22	101.2	24.8	0.9
2019	145,026	72,985	72,042	2.27	101.3	25.3	0.9
2020	148,356	74,696	73,660	2.30	101.4	25.8	0.9
2021	151,803	76,463	75,341	2.32	101.5	26.2	0.9
2022	155,366	78,285	77,081	2.35	101.6	26.6	0.9
2023	159,038	80,160	78,878	2.36	101.6	27.1	0.9
2024	162,813	82,084	80,729	2.37	101.7	27.4	0.9
2025	166,680	84,052	82,628	2.38	101.7	27.8	1.0
2026	170,639	86,062	84,577	2.37	101.8	28.2	1.0
2027	174,696	88,118	86,577	2.38	101.8	28.5	1.0
2028	178,857	90,222	88,634	2.38	101.8	28.9	1.0
2029	183,114	92,371	90,743	2.38	101.8	29.2	1.0
2030	187,442	94,551	92,891	2.36	101.8	29.5	1.0

YEAR	Svay Rieng						
	TOTAL	MALE	FEMALE	ANNUAL GROWTH	SEX RATIO	MEDIAN AGE	% OF THE TOTAL
2008	499,820	239,736	260,084		92.2	22.5	3.6
2009	499,815	240,225	259,590	0.00	92.5	22.8	3.5
2010	499,969	240,781	259,188	0.03	92.9	23.1	3.5
2011	500,275	241,401	258,874	0.06	93.3	23.5	3.4
2012	500,745	242,089	258,655	0.09	93.6	23.8	3.4
2013	501,405	242,861	258,543	0.13	93.9	24.2	3.4
2014	502,287	243,733	258,554	0.18	94.3	24.6	3.3
2015	503,432	244,725	258,707	0.23	94.6	25.1	3.3
2016	504,905	245,869	259,036	0.29	94.9	25.5	3.2
2017	506,749	247,188	259,561	0.37	95.2	25.9	3.2
2018	508,949	248,674	260,275	0.43	95.5	26.3	3.2
2019	511,483	250,316	261,167	0.50	95.8	26.8	3.1
2020	514,333	252,104	262,229	0.56	96.1	27.2	3.1
2021	517,511	254,047	263,465	0.62	96.4	27.7	3.1
2022	521,027	256,150	264,877	0.68	96.7	28.1	3.1
2023	524,863	258,403	266,460	0.74	97.0	28.5	3.1
2024	528,996	260,795	268,201	0.79	97.2	29.0	3.1
2025	533,401	263,312	270,088	0.83	97.5	29.4	3.0
2026	538,082	265,954	272,127	0.88	97.7	29.9	3.0
2027	543,053	268,725	274,327	0.92	98.0	30.3	3.0
2028	548,318	271,628	276,690	0.97	98.2	30.6	3.0
2029	553,880	274,663	279,217	1.01	98.4	31.0	3.0
2030	559,726	277,824	281,903	1.06	98.6	31.3	3.0

YEAR	Takeo						
	TOTAL	MALE	FEMALE	ANNUAL GROWTH	SEX RATIO	MEDIAN AGE	% OF THE TOTAL
2008	874,711	425,253	449,458		94.6	21.6	6.3
2009	875,620	426,318	449,302	0.10	94.9	21.8	6.2
2010	876,631	427,416	449,216	0.12	95.1	22.0	6.1
2011	877,839	428,592	449,247	0.14	95.4	22.4	6.0
2012	879,328	429,893	449,436	0.17	95.7	22.7	6.0
2013	881,157	431,346	449,811	0.21	95.9	23.1	5.9
2014	883,392	432,988	450,404	0.25	96.1	23.5	5.8
2015	886,096	434,850	451,246	0.31	96.4	24.0	5.8
2016	889,420	437,009	452,411	0.38	96.6	24.4	5.7
2017	893,474	439,521	453,953	0.46	96.8	24.9	5.6
2018	898,226	442,369	455,857	0.53	97.0	25.4	5.6
2019	903,631	445,531	458,099	0.60	97.3	25.8	5.5
2020	909,643	448,984	460,659	0.67	97.5	26.3	5.5
2021	916,272	452,735	463,537	0.73	97.7	26.8	5.5
2022	923,515	456,785	466,729	0.79	97.9	27.2	5.5
2023	931,305	461,102	470,203	0.84	98.1	27.7	5.4
2024	939,572	465,649	473,924	0.89	98.3	28.2	5.4
2025	948,239	470,385	477,853	0.92	98.4	28.6	5.4
2026	957,279	475,295	481,984	0.95	98.6	29.1	5.4
2027	966,685	480,370	486,315	0.98	98.8	29.5	5.4
2028	976,431	485,597	490,834	1.01	98.9	30.0	5.4
2029	986,542	490,989	495,553	1.04	99.1	30.4	5.4
2030	997,025	496,549	500,477	1.06	99.2	30.7	5.4

YEAR	Oddar Meanchey						
	TOTAL	MALE	FEMALE	ANNUAL GROWTH	SEX RATIO	MEDIAN AGE	% OF THE TOTAL
2008	192,375	96,944	95,431		101.6	19.7	1.4
2009	201,474	101,636	99,838	4.73	101.8	20.3	1.4
2010	210,220	106,142	104,079	4.34	102.0	21.0	1.5
2011	218,786	110,550	108,236	4.07	102.1	21.6	1.5
2012	227,353	114,953	112,400	3.92	102.3	22.2	1.5
2013	235,897	119,339	116,557	3.76	102.4	22.8	1.6
2014	244,395	123,696	120,699	3.60	102.5	23.3	1.6
2015	252,826	128,013	124,814	3.45	102.6	23.8	1.6
2016	261,201	132,293	128,908	3.31	102.6	24.4	1.7
2017	269,531	136,543	132,987	3.19	102.7	24.9	1.7
2018	277,792	140,752	137,040	3.07	102.7	25.3	1.7
2019	285,966	144,909	141,057	2.94	102.7	25.8	1.8
2020	294,030	149,002	145,028	2.82	102.7	26.2	1.8
2021	301,968	153,025	148,944	2.70	102.7	26.7	1.8
2022	309,765	156,971	152,795	2.58	102.7	27.1	1.8
2023	317,402	160,829	156,573	2.47	102.7	27.5	1.9
2024	324,857	164,590	160,267	2.35	102.7	27.9	1.9
2025	332,105	168,240	163,865	2.23	102.7	28.3	1.9
2026	339,134	171,771	167,363	2.12	102.6	28.7	1.9
2027	345,943	175,183	170,761	2.01	102.6	29.1	1.9
2028	352,538	178,478	174,060	1.91	102.5	29.5	2.0
2029	358,905	181,650	177,255	1.81	102.5	29.9	2.0
2030	365,010	184,682	180,328	1.70	102.4	30.2	2.0

YEAR	Kep						
	TOTAL	MALE	FEMALE	ANNUAL GROWTH	SEX RATIO	MEDIAN AGE	% OF THE TOTAL
2008	37,016	18,298	18,718		97.8	20.0	0.3
2009	37,972	18,809	19,162	2.58	98.2	20.5	0.3
2010	39,004	19,360	19,644	2.72	98.6	21.0	0.3
2011	40,142	19,965	20,177	2.92	99.0	21.6	0.3
2012	41,420	20,643	20,777	3.18	99.4	22.2	0.3
2013	42,838	21,393	21,446	3.42	99.8	22.8	0.3
2014	44,398	22,215	22,183	3.64	100.1	23.3	0.3
2015	46,098	23,110	22,988	3.83	100.5	23.9	0.3
2016	47,945	24,081	23,864	4.01	100.9	24.4	0.3
2017	49,945	25,130	24,815	4.17	101.3	24.9	0.3
2018	52,097	26,256	25,840	4.31	101.6	25.4	0.3
2019	54,396	27,459	26,937	4.41	101.9	25.8	0.3
2020	56,839	28,735	28,105	4.49	102.2	26.3	0.3
2021	59,427	30,084	29,343	4.55	102.5	26.7	0.4
2022	62,157	31,507	30,650	4.59	102.8	27.1	0.4
2023	65,027	33,002	32,025	4.62	103.1	27.5	0.4
2024	68,033	34,566	33,467	4.62	103.3	27.9	0.4
2025	71,168	36,197	34,971	4.61	103.5	28.2	0.4
2026	74,433	37,893	36,540	4.59	103.7	28.5	0.4
2027	77,826	39,654	38,172	4.56	103.9	28.9	0.4
2028	81,351	41,482	39,869	4.53	104.0	29.1	0.5
2029	85,009	43,378	41,631	4.50	104.2	29.4	0.5
2030	88,797	45,339	43,458	4.46	104.3	29.6	0.5

YEAR	Pailin						
	TOTAL	MALE	FEMALE	ANNUAL GROWTH	SEX RATIO	MEDIAN AGE	% OF THE TOTAL
2008	72,971	37,619	35,352		106.4	21.0	0.5
2009	77,776	40,124	37,652	6.58	106.6	21.6	0.6
2010	82,595	42,633	39,962	6.20	106.7	22.1	0.6
2011	87,453	45,160	42,293	5.88	106.8	22.7	0.6
2012	92,379	47,718	44,661	5.63	106.8	23.2	0.6
2013	97,360	50,300	47,060	5.39	106.9	23.7	0.7
2014	102,383	52,901	49,482	5.16	106.9	24.2	0.7
2015	107,433	55,512	51,921	4.93	106.9	24.6	0.7
2016	112,509	58,133	54,376	4.73	106.9	25.1	0.7
2017	117,614	60,765	56,848	4.54	106.9	25.5	0.7
2018	122,730	63,400	59,330	4.35	106.9	26.0	0.8
2019	127,842	66,028	61,814	4.17	106.8	26.4	0.8
2020	132,932	68,640	64,292	3.98	106.8	26.8	0.8
2021	137,997	71,236	66,761	3.81	106.7	27.2	0.8
2022	143,035	73,816	69,219	3.65	106.6	27.5	0.8
2023	148,036	76,374	71,663	3.50	106.6	27.9	0.9
2024	152,990	78,904	74,086	3.35	106.5	28.2	0.9
2025	157,888	81,402	76,486	3.20	106.4	28.5	0.9
2026	162,734	83,870	78,864	3.07	106.3	28.8	0.9
2027	167,541	86,314	81,227	2.95	106.3	29.1	0.9
2028	172,321	88,740	83,581	2.85	106.2	29.4	1.0
2029	177,077	91,149	85,929	2.76	106.1	29.7	1.0
2030	181,801	93,536	88,265	2.67	106.0	30.0	1.0