

Bibliographical Guidelines on Aging-Related Materials

Part II

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Bibliographical introductions

- **Japan Parliamentarians Federation for Population (1983). “Toward an Aging Society: Issues and Recommendations”.**

1. Introduction

Published in 1983, this book presented a forward-looking view of Japan’s population problem at the time. As the book was not offered for public distribution, however, it is little recognized that parliamentarians with a compelling awareness of a forthcoming population issue applied the knowledge of demographers to examine the social impact of aging to such breadth and depth at the time when aging was hardly recognized as an issue. In this context, the book is a testimony to the pioneering nature of this initiative of the Japan Parliamentarians Federation for Population (JFPF), which is the world’s first nonpartisan parliamentarian group addressed to population and development. The book also presents many insightful views including forecasting present-day policy initiatives and indicating potential complications in implementing countermeasures for declining birthrates. Although initiatives for aging based on some of the keen insights presented in this book had been adopted, the impact of today’s aging society has been much more rapid and serious than imagined at the time.

Therefore, reviewing the contents of the book today more than 30 years after it was written is both interesting and thought-provoking. While the view that considers aging as Japan’s most serious problem in the near future was a correct judgment, it must also be said that the outlook as presented in the book was far less serious than the reality.

At the beginning, the book states that while the birth and population growth rates saw abnormally high increases immediately after the Second World War due to the rebound of the impact of war, these rates rapidly contracted shortly after and by 1975 population growth had settled at an annual rate of less than 1.0%. This rate continued to contract thereafter, and the book states that “the issue of population growth has been more or less solved” and that aging was to become the focal issue instead. In 1980, the ratio of Japan’s population aged 65 and over was only 9.1%, which was about the same as that of Australia (9.7%) and New Zealand (9.1%). While this was significantly higher than the ratios of developing countries, it was extremely low compared to the ratios of Western countries. Nevertheless, the book indicates that aging would rapidly progress at an unprecedented pace in the future and reach an exceptionally high ratio of 24% by 2021. This would be even higher than Switzerland’s aging ratio, the highest aging ratio according to UN estimates. The book presents the following table.

Table 5: Comparison of the Age Structures of Switzerland, Finland and Japan in 2025

Country	Population Dependency Ratio (%)			Aging Index	Ratio of Population Aged 65 and Over (%)
	Total Number	Young Population	Aged Population		
Switzerland	63.03	27.21	35.82	131.6	21.97
Finland	61.56	27.38	34.18	124.8	21.16
Japan	61.94	23.42	38.52	164.5	23.79

Source: Figures for Switzerland and Finland are based on 1980 UN estimates mentioned above; figures for Japan are estimates by Nihon University Population Research Institute

In reality, however, aging has progressed at a much faster pace than predicted at that time. In contrast to the prediction at the time that the ratio of the aged population would reach its highest level in the 2020s and would cease to grow thereafter, the present forecast estimates that the rise of the aged population ratio will be further accelerated in the first half of the 21st century (see table below).

Year	Total population (Thousand people)	Population composition by age (%)			Population Dependency Ratio (%)	
		0-14	15 - 64	65 -	Young population	Aged population
1975	111,940	24.3	67.7	7.9	35.9	11.7
1985	121,009	21.5	68.2	10.3	31.5	15.1
1995	125,570	16.0	69.5	14.6	23.0	21.0
2005	127,768	13.8	66.1	20.2	20.9	30.6
2015	126,597	12.5	62.1	25.1	20.1	40.4
2025	120,655	11.0	58.7	30.3	18.7	51.6
2035	112,124	10.1	56.6	33.4	17.8	59.0
2045	102,210	9.9	52.4	37.7	18.9	71.9

Source: *Japan Population 2015*, Statistics Bureau, Ministry of Internal Affairs and Communications

Projections in this book were quoted from the *Population Projections for Japan: 1981* compiled in 1981 by the Institute of Population Problems (the predecessor of the National Institute of Population and Social Security Research). According to the report's medium-variant projections:

1. The total population of Japan will peak in 2008 at 138 million people, and around 2075 it will reach a stationary state of about 119 million people.
2. In terms of age composition, the ratio of the population aged 65 and over will gradually increase to the peak of 21.8% in 2020. After that it will fluctuate slightly and it will stabilize at a level of from 19 to 20% around 2075.
3. The young population ratio of age 15 and under will drop to as low as 16.7% in 2020 and after that remain at 18 to 19%.

The reason why the above projections diverged significantly from reality was due to the following assumptions:

1. The decline in the fertility rate will continue for a period, but after falling to 1.68 in 1985, the total fertility rate (TFR) will recover and reach replacement level at 2.09 in 2025, where it will be maintained thereafter.
2. The average life expectancy of 73.14 years for men and 78.5 years for women will further increase to 75.07 and 80.41 years respectively by 2025, and will remain at that level thereafter.

In fact, the following happened and “declining birthrates and the aging of the population” progressed significantly.

1. The TFR continued to decline from 1.76 in 1985, falling as low as 1.26 in 2005. Thereafter, it recovered slightly and remained at a level of around 1.4 from 2012 onwards.

The projected figures shown in the table above are from *Population Projections for Japan* (January 2012 estimates) compiled by the National Institute of Population and Social Security Research, which forecast that the TFR would remain at about 1.3.

2. The average life expectancy increased more than forecast figures, reaching 80.21 years for men and 86.61 for women in 2012.

2. Estimates at the time and actual results in the world

At that time the book further referred to world population projections based mainly on UN estimates. Some noteworthy points are:

1. While the world population growth rose dramatically after the Second World War, it started to contract after the peak at an annual rate of 1.99% during the first half of the 1960s, and later declined noticeably during the 1970s as if “the population bomb had been defused”.
2. While the rate of population growth in developed regions of the world continued to decline, population growth remained high in developing regions. As a result, the population ratios of developed and developing countries will change significantly in the future.

In reality, there was no significant change in either Item 1 or 2. The next table shows projections at the time and actual results as of 2013 and UN projections then.

Table: Population Ratios of Developed and Developing Countries, Projections and Results 1980-2013

Year	1980 estimate			Actual number and 2013 estimate		
	Total population (million people)	Developed country (%)	Developing country (%)	Total population (million people)	Developed country (%)	Developing country (%)
1975	4,067	26.9	73.1	4,071	25.7	74.3
1985	4,826	24.2	75.8	4,864	22.9	77.1
1995	5,677	21.9	78.1	5,742	20.4	79.6
2005	6,558	19.8	80.2	6,514	18.7	81.3
2015	7,407	18.1	81.9	7,325	17.2	82.8
2025	8,195	16.8	63.2	8,083	15.9	84.1

Furthermore, the book predicted that the aging of population would progress in Western countries, and a comparison of projections at the time, actual results, and the latest projections are shown in the table below.

Table: Aged Population Ratios

	1980 Estimate (%)			Actual Number and 2012 Estimate (%)		
	1980	2000	2025	1980	2000	2020
United States	11.2	11.26	15.85	11.3	12.4	16.6
Canada	9.21	9.63	16.69	9.4	12.6	18
France	12.45	14.59	18.57	14	16	20.3
West Germany	13.63	15.44	19.96	Germany 15.6	16.3	23.1
East Germany	14.17	14.89	19.57			
United Kingdom	14.98	15.34	18.6	14.9	15.8	18.9
Italy	13.52	16.88	20.66	12.4	18.3	22.8
Japan	9.1	16.26	23.73	9.1	17.4	29.1

The aging of the population is progressing faster than generally anticipated, particularly in Japan.

3. Factors contributing to the advancement of aging

The rapid progress in aging is due to the ongoing decline in the fertility rate and the greater-than-anticipated increase in longevity, especially the former is a significant cause. The following facts were the reasons for forecasting as of 1980 that the TFR would already set to reverse in 1985 and reach replacement level by 2025:

1. The increase in the average age for the first marriage was cited as a factor in declining fertility. However, it is unlikely to rise much further, if at all. Moreover, births will occur in a more concentrated timeframe due to a shortening of intervals between childbirths.
2. From around 1985, the average age for the first marriage may fall due to changes in age composition.
3. In terms of the ideal number of children, the number of couples hoping for two children and those hoping for three children are evenly matched.
4. In Western countries, there are recent indications that the fertility rate is rebounding, and this can be quoted as a useful reference for the recovery of fertility in Japan.
5. Various studies in recent years and historical facts in developed countries indicate that declined fertility will gradually recover to population replacement level at 2.09.

In reality, however, the average age for the first marriage for women continued to rise and reached 29.5 years in 2008. As a result, the fertility rate for women in their 20s significantly declined, but increased slightly for women in their 30s, while the TFR continued declining. The TFR of European countries, as introduced in the final chapter of this book, started to decline all at once with 1964 as the threshold. However, this decline came to a halt in the latter half of the 1970s, and by the end of the 1970s, there were indications of a reversal in the TFR trend in some countries (which is the basis for Item 4 above). Furthermore, socialist countries in Eastern Europe including the Soviet Union adopted policies encouraging fertility, and the

TFR in those countries was over 2.0, with the lowest TFR in East Germany at 1.9. The subsequent movement in TFR became more varied, however, resulting in the following variants as shown below in 2011.

TFR in 2011 (among developed countries)

Low	Hungary 1.24	Romania 1.25	Korea 1.26
	Poland 1.31	Germany 1.35	Spain 1.36
	Italy 1.39	Japan 1.39	Singapore 1.45
Medium	Switzerland 1.52	Russia 1.59	Canada 1.67
High	Sweden 1.52	Austria 1.92	United Kingdom 1.96
	France 1.99	United States 2.08	

Source: *World Statistics 2015*, Statistics Bureau, Ministry of Internal Affairs and Communications

After the fall of the socialist system at the beginning of the 1990s, the fertility rate rapidly declined in former socialist countries in Eastern Europe. In Russia, the TFR declined to a level of 1.2 or so around the year 2000 but started to recover thereafter.

In Germany and Southern European countries including Italy, as well as Japan and countries in East Asia, the TFR fell to its lowest level. On the other hand, the TFR in France, the United Kingdom, the United States, and countries in Northern Europe maintained or recovered to a level of 1.9 or higher. Therefore, even among the developed countries, the trend in fertility is clearly divided into two groups; while the low variant countries are trending at an “abnormally” low level of 1.5 or less, countries in the other group have almost recovered or are attempting to maintain replacement level. Therefore, the generalization regarding developed countries in Item 4 above is out of reality. Furthermore, in low variant countries where fertility rates continue to decline, even if the decline in fertility comes to a halt, it is questionable whether the fertility rate will recover to the level where population replacement is possible. Should the fertility rate continue to decline in this manner, the aging population rate will eventually, and rapidly, increase.

4. Fertility rate and aging

As the book was premised on a fertility rate outlook that is now clearly overly optimistic in hindsight, discussion centers on the issue of “aging” and hardly touches upon the issue of “declining fertility” or the combined issue of “declining fertility and aging”. Consequently, the discussion on aging proceeded on the basis of an overoptimistic assumption, and the book foresaw a recovery in the fertility rate that would stabilize the population age distribution, and stated that while the ratio of the aging population would be high, it would remain at a constant level. Or, it assumed that it would later taper to a certain degree. According to the book, after the total population peaked, it would decrease very gradually and remain at an

almost constant level. On these grounds, it became possible to consider the issue of aging in a context where it was assumed that the framework of society as a whole was maintained in a stable state.

However, because the TFR fell to an extremely low level, it is now predicted that the aging population ratio will continue to increase from 2020 onwards, eventually rising to over 40%. It is also predicted that the decline in total population will gradually accelerate, falling below 100 million by 2050 and decreasing to as low as 50 million by the end of the 21st century. However it must be pointed out that the way low fertility rate will change in the future is entirely unclear.

In that regard, three possibilities can be considered:

1. The TFR will gradually recover and reach 2.0;
2. The TFR will remain within the range of the current level from 1.3 to 1.5; or
3. The declining trend will again accelerate and the TFR will fall below 1.0.

If the scenario in Item 3 eventuates, the decline in population will gradually accelerate, exceeding minus 2% annually, and result in halving the population in 30 years. This literally means the end of Japanese society and the self-destruction of the Japanese people as a race. This is because once a population continues to decline at a speed faster than a certain level, the basic framework of that society cannot be maintained economically, socially, politically, or even culturally. Every society, however, seems to have a self-preservation instinct of sorts, and when such an ominous situation became imminent, it is likely that the government would adopt a policy with strong fertility incentives, forcefully raising the fertility rate. Nevertheless, such a drastic approach would cause considerable confusions as well as sufferings. Therefore, it is imperative to avoid this scenario.

In reality, the likelihood of the second scenario is considered high. It is an assumption on which current estimates of the future population are based. Even in this case, however, the aging population ratio will exceed 40% and the population will commence a permanent decline. Under such circumstances, it will be extremely difficult to achieve economic growth.

The optimistic scenario in Item 1 will be difficult to achieve in the current environment. The government recently came up with plans for “maintaining a population of 100 million” and “recovery of a 1.8 TFR” but as yet has put forward hardly any proposals for specific policies to achieve these aspirations.

In Japan, until recently there was a tendency to view the notion of fertility incentives or raising the fertility rate as taboos reminiscent of Japan’s prewar policy of “increase and multiply” and thus a violation of self-determination rights regarding pregnancy and childbirth, and denial of a woman’s fundamental rights (it can be argued that this tendency to view these as taboos still exists today). Furthermore, in regard to the decision of individuals to have or not have children after weighing up the “cost benefits” in relation to childbirth and childrearing, some theoretical economists argue that the “intervention” by the government to socially compensate costs related to childbirth and childrearing impairs “social effectiveness”. Human reproduction and economic reproduction, however, are fundamental concerns of all of human society and cannot be treated purely as a matter of individuals.

What is clear is that at least for 20 to 30 years in the future, aging will progress at a more rapid rate than forecast in the 1980s, and the problem is not simply aging but continues to be a declining birthrate in tandem with an aging population. The declining birthrate globally is

also an important issue. As mentioned earlier, developed countries are divided into two groups in relation to TFR, but the question is: what is the root cause? Or, conversely, what underlies the success of a country like France in the recovery of its birthrate after being beset by low birthrates for many years? Many opinions have been expressed about France's population policies, but is the success really attributable to the results of its policies? And, if its policies were truly effective, why is it that other developed countries have not adopted similar policies? This is not a simple problem.

Moreover, although birthrates in the former socialist countries of Eastern Europe including Russia rapidly declined for a period after the collapse of the Soviet Union, it is not clear whether this was a temporary or permanent phenomenon. At any rate, since the beginning of the 21st century, a trend in the recovery of birthrates is evident in Russia and some other Eastern European countries. In Korea, on the other hand, the declining birthrate is progressing more rapidly than in Japan and the question now is how it will trend in the future. In China, while the government abandoned its one-child policy in 2015, the recovery of its fertility rate in the future is questionable. In view of birthrate trends of countries in East Asia with large Chinese populations such as Singapore and Hong Kong, it is highly likely that the TFR in China will remain at a low level of about 1.5. In any event, many countries in the world will not be able to avoid being saddled with a declining birthrate and aging population in the future.

5. Social and economic changes accompanying an aging population

In addition to the trends and changes in population structure, the following topics are discussed in thematic chapters in the book: "changes in social structure in Japan", "changes in the age structure", "the labor and industry structure", and "population migration and distribution". At the end of the book, two round-table talks on the subject "Toward an Aging Society" are also presented.

The round-table talks take up issues such as social security, employment, and local communities, and the orientation of these talks for the most part seems to be correct. On the other hand, projections regarding economic growth, that is, the projection of real GDP growth of 4% along with assumptions concerning the fertility rate can be considered "overly optimistic" in hindsight.

While the book correctly indicates issues concerning social security costs including medical insurance, and increasing difficulties over the problem of the burden of pensions, there is little discussion concerning the raising of tax revenues to cover these. The book does not touch upon the need to introduce a general consumption tax, which was already widely practiced in Europe at the time, and measures for bringing in a nursing care insurance scheme did not seem to be within the parliamentarians' view at all at the time.

In regard to the correlation between economic growth and the fertility rate, it is observed that a sustained decline in the TFR commenced simultaneously with the end of Japan's period of high economic growth in 1975, and continued after the collapse of Japan's so-called "bubble economy" in 1990 through to the period of economic stagnation of the Heisei era, and those facts suggest that there was some kind of causal relationship between events during this time, yet that aspect remains unclear. What is certain, however, is that declining fertility did not cause a labor shortage because of stagnation in labor demand stemming from the impact of a recession. Instead, as noted in the book, due to the extension of the retirement age and an

increase in the female labor force, the decline in young population effectively improved the relation between the effective dependent population and the labor population, and the period until the baby boomers who were born from 1945 to 50 after World War II began retiring may be described as giving rise to a “demographic dividend”.

What was not foreseen in this book was a significant increase in “non-regular workers (contractual employment)” such as casual and temporary employment, which began in the 1990s, and was accompanied by a widening inequality among people in the workforce. This caused instability in the lives of the younger generation, a tendency to postpone marriage, an increase in the percentage of unmarried people, and a tendency to avoid having children. It can be assumed that these factors are important causes of a declining TFR.

Looking at the regional distribution of population, the book also states that the concentration of population in metropolitan areas during the period of high economic growth had come to an end and the concentration of population in major cities of regional areas had begun instead. In reality, however, during the decline in fertility and decrease in population in general, the aging of local populations, depopulation in farming villages in remote areas, and the decline of many small and medium-sized cities progressed, making it difficult for local governments to maintain public services. In some areas, the existence of municipalities themselves is under threat. Scenarios like the above were for the most part beyond what anyone at the time imagined in the 1980s.

6. Declining fertility and Japan’s future

A complete picture of the crisis resulting from “declining fertility” is not clearly seen yet. Since there is a considerably long period from the time when the fertility rate starts falling until the total population actually starts to contract, only after a fall in the birth rate continues for some time is the impact of declining fertility generally felt. Likewise, even when the fertility rate begins to recover, it takes some time before the effects become evident.

It can be said that population trends until about 2030 have already been determined at present. It is certain that the aging of the population will continue at first during this period, with the aging population surpassing 30%. During this period, however, the issue will remain “aging” on its own as predicted in this book, and the true, underlying issues of declining fertility, declining populations, and a contracting society will not immediately surface. The issue is what lies ahead, and whether scenario 1, 2 or 3, as described earlier, will eventuate. This will be determined by trends in the fertility rate in the next 20 years.

TFR trends in the last 10 years indicate that it may be possible to avoid a catastrophe of the worst case scenario where the fertility declining leads to a decline in population in excess of minus 2% annually. However, even if the decline in the TFR comes to a halt, it is still to be seen whether it will remain at a low level and long-term depopulation will continue, or the trend will reverse and return to replacement level, resulting in stabilization of the population. Recent population estimates are forecasting the former, and in many cases the long-term government policy outlook is based on this assumption. However, it is predicted that the aging population ratio will soon surpass 40%, the crude death rate will exceed the crude birthrate more than three-fold, and population growth will reach negative 14‰. In this case, it is doubtful whether such a society is sustainable.

As this book indicates, aging was already identified as an issue more than 30 years ago, and its countermeasures were discussed. While the issues of declining fertility and a contracting society should have been recognized at least from around the year 2000, irresponsible discussions arguing that since population growth was not a positive indicator, a declining population should be welcomed and arguments in support of declining fertility rates were rampant and valuable time passed the gravity of the situation being recognized. In fact, it is only recently that the government has started talking about maintaining a population of 100 million and supporting recovery of a 1.8 TFR.

The issue is not, however, about the size of the total population itself. If the population of Japan falls to 60 million people, half of the present population, it will not be a problem if it occurs sufficiently far in the future. The issue is the speed at which the population declines. Furthermore, while it is not only difficult to rapidly raise the TFR, if the fertility rate is forcibly raised, a simultaneous increase in both the aging and young dependent populations will occur, and so too will the social burden. Just as the aging of the population cannot be prevented, both declining fertility and a declining population are already certainties for near future. In the long term, however, recovery of the fertility rate is definitely necessary. Declining fertility is a more complicated and difficult problem than aging, and politicians and researchers alike should read between the lines of this book and realize that they must tackle this problem in a more serious, head-on manner now.

(Dr. Kei Takeuchi)

Link:

https://ssl.whp-gol.com/apda.jp/dl/i/aging_challenges_recommendations.pdf

○ **Osamu Kusumoto (2006). “Demographic Transition in Asia: Comparisons of the Countries in Southeast Asia, West Asia, and Central Asia”.**

The discussion on aging can be regarded nearly the same with that on demographic transition. Increase in the average life expectancy and decline in the fertility rate, which occur as a result of demographic transition, create a temporary decline in the dependent population, or population dividend, and provide countries with a foundation for economic development. However, this progression of events inevitably thereafter leads to the society aging. This monograph analyzes the process of demographic transition based on substantive field researches in Asia and indicates that (1) the conditions a society faces, such as the natural environment and economic conditions, give rise to changes in social values (norms), and (2) changes in social values in turn give rise to changes in social conditions. The monograph then studies these relationships from an interactive viewpoint.

It is pointed out in this monograph that when measures for aging are being considered, coping with problems relating to aging alone will not be sufficient; but must take into account of the cultural backgrounds and natural conditions of each country in an integrated manner. Although the monograph is published only in Japanese, it is a worthy source of basic information when considering measures for Asia’s aging problem, therefore the reviewer wishes to introduce the contents briefly.

This monograph was originally a doctoral dissertation submitted to the Faculty of International Studies, Meiji Gakuin University, and the author was awarded PhD degree in International Studies on this work. The content is comprised of the Introduction, which is a general discussion on demographic transition (page 1 to 75), then Chapters 1 to 5, which individually analyze 11 countries (page 76 to 296), and a postscript and list of references.

The author believes the main cause of the population problem is the contradiction between in population growth and the world’s capacity to support its burgeoning population. Due to various reasons, population growth in the past was contained at an extremely low level. In modern times in Europe, however, the mortality rate declined while the fertility rate remained at the same or slightly higher level and population growth increased. In a matter of time, however, the fertility rate started to fall, death and fertility rates became balanced, and the population headed toward stability. This process is referred to as demographic transition.

Apart from Europe and the United States, in many countries in Asia, Africa, and Latin America in the 20th century, particularly during the latter half, the mortality rate fell significantly and rapidly rising birthrates led to an explosive population growth. However, even in these countries, the fertility rate soon started to decline. The author assumes that the “demographic transition” is not a phenomenon unique to Europe but is a worldwide universal process and that many countries are still in the transitional stages. The purpose of this dissertation was to analyze this process in detail in developing countries in Asia except East Asian countries which are generally perceived as developed.

In the introduction, the author defines the Demographic Transition Index (DTI) as an index for indicating the degree of progression in demographic transition. Using the Total Fertility Rate (TFR) and average life expectancy, the DTI is defined as follows:

$$DTI = 0.5 \times \frac{(7.6 - TFR)}{(7.6 - 2.1)} + 0.5 \times \left[1 - \left(\frac{79 - e_0}{79 - 43} \right) \right]$$

The above index assumes that the TFR, in the process of demographic transition, will change from 7.6 to 2.1 and that the average life expectancy e_0 from 43 to 79. In fact, in many developed countries, the index has already surpassed 1.0. However, the author uses the above as a practically useful index and investigates country by country the relationship of the DTI and GDP per capita, Human Development Index (HDI), infant mortality rate and Gini index, enrollment ratio of higher education for girls, as well as infant mortality rate and urban population ratio. With most of these cases producing significant (positive or negative) correlations, the results of these investigations reveal that many social factors are involved in demographic transition.

Using these indexes, the author compares the 11 countries Chapter 1 onwards which are arranged in order of the DTI as follows: Laos, Cambodia, Pakistan, Myanmar, India, Mongolia, Philippines, Kazakhstan, Uzbekistan, Vietnam, and Iran.

In the introduction, the author explains his attempt to understand the process of demographic transition from a broad social scientific viewpoint and provides an appropriate framework for comprehensively understanding respective case studies that comprise the main part of this monograph.

Discussions in Chapters 1 to 5 are based on results of actual works of field study teams in which the author participated and obtained information from field surveys and sources other than previously published statistical data (official statistics of these countries tend to have many deficiencies). This research methodology places direct analysis at its heart by not employing secondary sources. The contents of each chapter are summarized below.

Chapter 1: Lagging Development and Constraints Stemming from Social Structure (DTI: less than 0.5)

The three countries – Laos, Cambodia and Pakistan are countries where the demographic transition has not proceeded. However, their structures are different. Laos is a mountainous country that has been “left behind” with little progress in development. Both birth and mortality rates have been high but thanks to the promotion of modern medicine, the mortality rate has dropped and the country is facing rapid population growth, prompting the need for demographic transition. While the infrastructure required for it is extremely insufficient, cultural and religious resistance to family planning is not strong, there is a possibility that demographic transition will proceed smoothly in the future.

In Cambodia, tyranny of the Pol Pot regime and ensuing civil war during the 1970s caused a significant distortion in the composition of the population. The loss of population during this period is estimated to be as high as one third to one half of the population. After the end of the civil war, both the birth rate and population growth increased dramatically, prompting the need for demographic transition. However, the massive destruction of the social bond and educational infrastructures by the Pol Pot regime produced enormous hardships for the people in the aftermath. In the case of Cambodia, therefore, rather than looking at the process of demographic transition, the reviewer believes, at this stage, it is more important to

understand the process of how the population can reestablish its equilibrium after suffering catastrophic damages (there are numerous examples of similar cases in history).

In contrast, Pakistan is a large country with a population approaching 200 million. Although the country has the technological capability to develop nuclear weapons on its own, in economic terms for the country as a whole is penurious, and population growth remains at an extremely high level with no indication of demographic transition. The status of women in society is extremely low, the mortality rate for girls is clearly high and the education level among women remains low. Detailed analysis of respective states of the country shows disparities among states and a decline in the fertility rate as a whole although the pace is slow. The author attributes the cause originating from the ideology posed by Islam and the social structure that are tied to a feudal system. In light of the example of Iran, which is mentioned later, the author discusses the possibility of Islam leaders promoting demographic transition based on interpretation of the religion itself.

Chapter 2: Colonization and Population Problems (DTI 0.5-0.8) – Myanmar, India, and the Philippines

In Myanmar, no census was taken during the period under the military dictatorship, and as a country with a population of multiple ethnicities there were difficulties in conducting research. Majority of the population statistics are based on estimates, therefore there are issues of reliability in the data. In population growth, migration (exiting and entering the country) is causing a significant impact. Significant disparities among regions are evident in the total fertility rate (TFR) and crude birth rate (CBR) statistics among the respective domains (regions) and urban and farming areas. TFR ranges from 1.13 in urban areas in Domain 5 to 4.67 in rural districts of Domain 7, while CBR for the former is 10.76‰ and for the latter, 32.9‰, indicating the existence of significant gaps. At the same time, there is no coherence in the rate of change of the total population indicated in the CBR and the official statistics; hence there is some doubt as to whether these figures accurately reflect the state of demographic transition in the respective regions.

Referring to results of surveys on rural districts, we find that despite the military regime adopting a policy stimulating population growth, the fertility rate dropped and demographic transition has progressed. The author cites the following as the causes: Myanmar is a Buddhist country and does not have a social caste system like India; unlike Islamic countries, Myanmar is keener to family planning; and there had been a certain level of investment in modernization under British rule. The author also believes, “The people of Myanmar have made a far more rational choice than the government.”

India is the next country the author examines. Needless to say, India has the second largest population in the world after China, and is expected to overtake China soon. Population density is already higher than that of Japan. The fertility rate, mortality rate, natural population growth rate, and infant mortality rate are all in decline, and the TFR had dropped to 3.2 in 1999. While demographic transition is in progress, the decline in fertility is lagging behind the decline in mortality. Consequently, the population is still growing, prompting the need to accelerate demographic transition. What is noticeable is the disparity in the sex ratio, with 933 women to every 1,000 men of the total population. This figure has dropped from what it was a century ago. The younger the population, the more this figure contracts. However, a disparity in the infant mortality rate between boys and girls is not evident in India as it is in Pakistan, indicating the possibility that prenatal sex selection is exercised. Both the

literacy rate and school enrollment rate are rising. According to data on individual states, disparities among the states are significant and the fertility rate in rural districts is high.

India's most outstanding social problem is the caste system, which is linked to Hinduism, and it is believed to be an impediment to all social reforms and demographic transition. However, the spread of modern education is changing people's traditional view of the world, or at least weakening its influence. Since it is clear that India is headed towards overpopulation, it is necessary to promote processes that will further lower the fertility rate.

The Philippines still has a high fertility rate, with a rapid population growth. In the past, it was believed that the population of the Philippines was too small. In 1870, the population was only 4.7 million (Japan at the time had 35 million people). After this, the population rapidly grew, reaching 27 million in 1960, 76 million in 2000, and 92 million in 2010, and it is presumed that it will overtake Japan in population by the middle of the 21st century.

Factors for promoting modernization appear to be in place in the Philippines. Education is widely spread, women's participation in society is increasing, the democratic political system is being maintained, and influence of the Catholic religion and other Christian sects is strong. While the TFR dropped to as low as 3.2 in 2000, still the total population continues to grow, and is about to reach a state of overpopulation.

Because demographic transition is not progressing at a sufficient pace, the author points out that the presence of disparities between social strata and regions are impeding people's rational choices in reproductive behavior. While this is correct, the reviewer believes the following problems are also factors impeding economic development as well as demographic transition (as seen in other Asian countries): the Philippines did not have a civilization native to the country prior to the arrival of the Spanish, nor did it have a common cultural tradition or common language; following the adoption of English as the official language and the internationalization of the elite segments of the population who received higher education, social disparities appeared in the general population between those who are able to speak English and those who are not; and while Catholicism and other Christian sects provided social norms, these caused friction with the Islamic regions in the South. In short, the most serious problem in the Philippines is the lack of progress in modern national integration.

Chapter 3: Demographic Transition in the Former Soviet Union (DTI 0.76-0.84) – Mongolia, Kazakhstan, and Uzbekistan

Although Mongolia was not a part of the former Soviet Union, it was strongly influenced by Moscow from the 1920s until the dissolution of the USSR. Therefore, it may be appropriate to treat Mongolia in the same category as the above two countries. While the ratio of the young population in Mongolia remains high, the fertility rate fell rapidly from 1989 onwards, and the TFR halved from 4.6 in 1989 to 2.3 in 1998. The literacy rate in Mongolia is high, and women's participation in society is increasing. While conditions for demographic transition are in order, the fertility rate dropped dramatically after the fall of the socialist economic system (planned economy) as people faced with economic difficulties adopted rational behavior. Due to the difficulty in making healthcare universally available in the vast countryside, the mortality rate has not decreased sufficiently. The author notes, however, that in terms of social consciousness, demographic transition has reached the level of developed countries. While the trend in Mongolia coincides with trends in Russia and the former socialist countries in Eastern Europe, the next issue the author believes is to decide whether the TFR will drop to

1.5 or lower, due to the “excessive” decline in the fertility rate, as in Russia and Eastern European countries, and whether this will result in a rapid “decline in the fertility rate and aging population.”

The population transition in Kazakhstan is unique. The total population continued to decrease during the 1990s. This was not a natural decline, however, but due to a mass emigration after the fall of the Soviet Union by local Russians, Germans, and other nationalities who had migrated to Kazakhstan under government policy and who, for a period, accounted for the majority of the population overtaking the Kazakh population. Apart from this social migration, the natural population growth rate is increasing but there are significant disparities in fertility rates among ethnic groups; the TFR is 2.50 for Kazakhs, 1.38 for Russians, and 2.05 for other ethnic groups.

Although the Human Development Index (HDI) is not high, it is beginning to improve. Even excluding social migration, demographic transition is going forward. Nevertheless, the author states that, “If Kazakh nationalism joins radicalized Islam groups, there is a possibility the trend will reverse.”

In Uzbekistan, no population census was taken after 1986, population statistics are inadequate, and the government itself seems to be hardly interested in the issue of population. Following the drastic increase in population in the latter half of the 20th century, however, the fertility rate rapidly dropped during the 1990s, and the TFR fell from 4.2 to 2.6. The social development index of Uzbekistan, centered on the literacy rate, is very high.

In Uzbekistan, even after its transition to the market economy, the Communist Party maintained its grip on the government, and social organizations of the former Soviet Union were maintained. It seems that the government still does not recognize the gravity of the population problem. Despite this situation, demographic transition has made progress through choices made by the people. However, Uzbekistan, which has traditionally relied on agriculture based on irrigation farming, has issues over water resources, as evident in the drying up of the Aral Sea. These issues are becoming more critical, and there is a significant need for further promotion of demographic transition.

Chapter 4: Success in the Introduction of Family Planning and Policies. (DTI 0.85) – Vietnam

In 1999, Vietnam received the United Nations Population Award in recognition of its initiatives in family planning. Vietnam can be described as “an honor student in the demographic transition” so to speak. In the period of ten years since transition to the Doi Moi in 1989 after more than ten years from the end of the Vietnam War, the fertility rate and population growth rate have declined steadily and the Human Development Index improved. The author cites the following eight items as causes of success in this case.

1. Under the influence of the pragmatic South China cultural sphere, the people of Vietnam took rational economic action.
2. The level of social development including the literacy rate was relatively high, and there was a foundation for people to accept government propaganda, etc. and to change their own behavior.
3. Society is centered on farming communities, so there is a strong interest in the activities of others, making it easy to promote the changes.
4. The international community has supported Vietnam, which was classified as one of the least developed countries.

5. Vietnam had all the conditions required to actively legislate the social agreements in the area of global social development.
6. The government has prioritized budget appropriations in accordance with the above legislature.
7. Social organizations (such as the Women's Federation) are still functioning.
8. The society was relatively homogeneous, and is not stratified.

Policies were implemented by the government but in close collaboration with the citizens unlike China's enforced "one-child policy".

Chapter 5: Islam and Demographic Transition – Iran (DTI 0.86)

Population growth in Iran reached its peak in 1976–1977 under the rule of the Shah Pahlevi dynasty at an annual rate of over 4%. After the Islamic Revolution in 1979, however, the fertility rate rapidly declined marking TFR falling to as low as 3.0 by 1996. Demographic transition has almost been completed. Under an Islamic system that had generally been opposing to demographic transition, due to changes in interpretation of the Islamic religious doctrine made by Ayatollah Khomeini, the Islam great jurist in Iran, this was made possible. These changes were based on the principle that "Islam enhances the wisdom of people, and enhances their happiness," and that measures must be taken to achieve this. In light of this interpretation, it became possible for the government to actively tackle population issues. While the exceptionally high fertility rate around 1975 was a temporary phenomenon in any event, this new interpretation was definitely a factor in promoting demographic transition after this, with improvement in educational standards, participation of women in society, urbanization, and an increase in the age of first marriage, etc.

All of the chapters mentioned above indicate that demographic transition is a complicated, varied process which involves government policies, people's choices, religious, cultural, and social values, historical traditions, and legacies of the past. The merit of this monograph is in the author's comprehensive research of each aspect of the subject (with adeptness in treatment of the subject).

Although it was unavoidable because of the process of the study, Indonesia and Thailand were regrettably not included. Both countries hold important positions in Southeast Asia, and both countries have distinctive population characteristics. Indonesia is the fourth largest country in the world population, and while the population is still increasing, both the fertility rate and the mortality rate are declining. Therefore, it is believed to be in the process of demographic transition. With majority of Muslim population, Indonesia remains a secular state in principle. Furthermore, it has many islands and diverse culture with secessionist activities in some parts. It also has imbalance in population distribution among the islands, Java is overpopulated and some of islands are sparsely populated. Against this backdrop, Indonesia is maintaining the national unity under the unifying Bahasa Indonesia (Official language of Indonesia). Therefore, the process of demographic transition in this country is interesting to understand. On the other hand, in the Kingdom of Thailand with Buddhist majority, the recent fertility rate is rapidly declining, and it is predicted that Thailand may be headed toward "a declining fertility rate and decreasing population" like East Asian countries (Japan, Korea). The reviewer would like to know more about conditions in these countries and looks forward to future research on both countries as supplementary information presented in the monograph.

On the last note, it would be an important topic to make a comparison of these countries with other countries, such as Japan, Korea and China, with extremely low fertility rates (TFR of 1.5

or less) In such a comparison, an important aspect will be determining whether countries in Southeast Asia, South Asia, Central Asia, and West Asia can maintain a stable population composition after achieving of demographic transition or they fall into a state of ongoing population decline due to an “excessive” drop in their fertility rates. These are important issues the reviewer expects to see in future researches.

(Dr. Kei Takeuchi)

Link:

https://ssl.whp-gol.com/apda.jp/dl/i/demographic_transition_asia_index.pdf