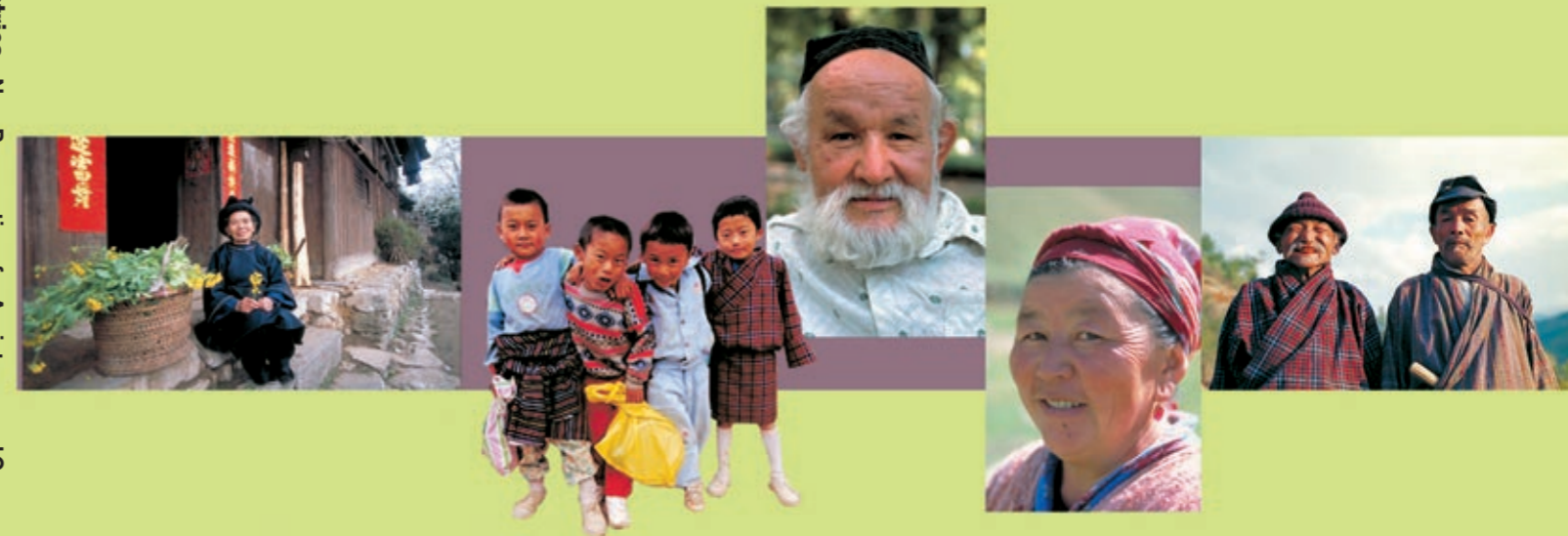


Facing up to the Problem of Population Aging in Developing Countries

New Perspectives for Assistance and Cooperation

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Keiichiro Oizumi, Hirokazu Kajiwara, Natsumi Aratame

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Summary

The study reported in this paper was conducted in fiscal 2005 as a joint research project under the editorial supervision of Dr. Toshio Watanabe, Dean, Takushoku University by three visiting fellows: Keiichiro Oizumi, Senior Economist, Economics Department, The Japan Research Institute, Limited (project coordinator); Hirokazu Kajiwara, Professor, Faculty of International Development, Takushoku University; and Natsumi Aratame, Professor, Faculty of International Development, Takushoku University. In the preparation of this report, the authors were assisted by Tetsuo Ogawa, Assistant Professor, Chiba University, and Koji Yamada, Associate Senior Researcher, Institute for International Cooperation, Japan International Cooperation Agency (JICA). In the course of writing this report, the authors held three meetings with the pertinent officials of JICA. While the opinions expressed by JICA officials at these meetings were taken into consideration, the views appearing in this report are the sole responsibility of the authors who wrote the chapters and in no way represent any official position of JICA.

Chapter 1 presented an overview of the trends in the world population in recent years. The UN Prospects on World Population indicate that the world population will keep increasing and reach 9.1 billion in 2050. However, the rate of this population growth is on a declining trend, from 1.8% in the period 1950-2000 to 0.8% in the period 2000-2050. This slowdown in the population growth is due to the global decline in the birthrate. The global Total Fertility Rate (TFR) has declined from 5.2 in the period 1950-1955 to 2.8 in 1995-2000. Coupled with the increase in life expectancy thanks to improved hygienic conditions, this decline in the birthrate is expected to accelerate the aging of the global population. The proportion of the elderly in the total population of the world, which stood at 6.9% in 2000, is expected to reach 10.5% in 2025 and 16.1% in 2050.

Even though developed countries still have a higher proportion of the elderly than developing countries, the proportion for the latter countries is expected to rise from 5.9% in 2000 to 8.6% in 2025 and to 14.6% in 2050. In absolute terms, the number of elderly people in developing countries will rise sharply from 250.3 million in 2000 to 1,144.2 million in 2050. In 2000, 59.4% of the elderly in the world lived in the developing countries. The problem of global aging is going to be more seriously felt in the developing countries than in the developed countries.

The aging of the population will take place first in East Asia as this region has seen its birthrate fall considerably ahead of other regions of the world. Using for comparison the number of years required for a country to move from an aging society (proportion of the elderly at 7% or higher) to an aged society (proportion of the elderly at 14% or higher), most Asian countries are projected to enter into an aged society faster than Japan did.

Chapter 2 offered an analysis of the demographic transition, which involves an aging population with a declining birthrate, and economic growth in various parts of the world covering: developed countries (UK and Japan), NIEs (Korea, Hong Kong, Singapore), China, Southeast Asia (Thailand, Philippines), South Asia (India), Latin America (Brazil, Mexico) and Africa (Egypt, Kenya).

The demographic transition that began in the 19th century with a decline in the birthrate spread from the UK to other European countries and the US and then to Japan. In the 20th century, the developing countries of Asia, Africa and Latin America also began to experience the demographic transition. The transition in developing countries occurred with a rate of population increase which was so much higher than in the developed countries that it was termed a population explosion. The population growth in developing countries, however, has slowed down considerably in recent years. While a number of factors account for this, one major reason is the decline in the birthrate, just as it occurred in the developed

countries. The increase in the population and the decline in the birthrate have occurred over a much shorter period in the developing countries than in the developed countries. This temporal compression of the demographic transition moves up the arrival of an aging population with a declining birthrate that ensues once the population stops increasing. A typical example is East Asia, which is expected to become a society with an aging population and a declining birthrate in the early 21st century. The same is true for other developing countries, though this will occur somewhat later. This is a law of demographics. The very developing countries that faced the challenge of a population explosion in the 20th century are going to face the challenge of an aging population with a declining birthrate in the 21st century. To respond to this rapid change in circumstances, developing countries are required to achieve higher rates of economic growth than ever before.

It is not easy for a society ridden with poverty and unemployment to support a high proportion of elderly people in the population. A more detailed analysis of this point was made by looking into the cases of Korea and the Philippines. It was concluded that the ability of industries to absorb the workforce was the most critical factor for a developing country to take advantage of the demographic dividend and achieve sustainable growth.

Chapter 3 discussed the influence of changes in the demographic structure upon economic development.

Countries that have high rates of population increase must implement policies to harness this demographic pressure, in addition to measures for the promotion of further economic development. Countries that have successfully lowered the birthrate are able not only to escape from the trap of a low-income equilibrium, but also acquire the “potential” to achieve high economic growth. This is called the “demographic dividend” and it is obtained through an increase in labor inputs and domestic savings. In order to give the demographic dividend full play, it is necessary to develop human resources consistent with the changes in demographic structure, improve the industrial infrastructure and develop the financial system.

The effect of the demographic dividend is not uniform throughout its duration. Developing countries in particular face the problem of an aging workforce in the latter half of the demographic dividend period. As can be seen in the cases of China and Thailand, many of the baby-boomers are still today engaged in agriculture in the countryside with less educational opportunity. To strengthen international competitiveness and alleviate the negative impact of an aging society, it is critically important that developing countries implement measures to raise the productivity of their middle-aged and elderly population.

Countries that have completed the period of the demographic dividend suffer from the limited availability of labor inputs, a reduced domestic savings rate and other effects of the aging of the population. Moreover, they have to bear the increased burdens of the aging of the population, including pension and health care costs. The size of such additional burdens will largely depend upon the type of social security system the country implements. In case of China and Thailand, social security systems covering the entire population are discussed. Close attention should be paid to the burden that the state coffers will need to carry in the future. The budgetary constraints of developing countries make it necessary to design their social security system by seeking an optimum combination of “the universal model,” “the social insurance model” and “the market-oriented model.” In addition, since the issue of support for older persons is simultaneously an issue of poverty, a multi-faceted approach is required, including the continuation of government public assistance and the introduction of a community welfare perspective to take advantage of the traditional mutual assistance functions of local communities.

In Chapter 4, an attempt was made to extract from Japan’s “community-based welfare,” some exemplary cases that might be useful as a reference point when the policymakers of the Asian developing

countries consider how to provide the minimum life security to their elderly citizens.

The author first reviewed the history of community-oriented welfare in Japan, presented an overview of the relevant legislation, and described the background that has led to the establishment of the concept of “community-based welfare.” It was also demonstrated that Japan’s community-based welfare system is not only maintained and reinforced by a formal system of long-term care insurance, but is also supplemented by informal organizations and actors.

In Thailand, the Philippines and Indonesia where the field studies were conducted, the elderly population is increasing steadily. Care of the elderly is still regarded as a family or local community matter in these countries. However, the ties among family members and relatives appear not to be as strong as before, signaling the possibility that care for the elderly could become a major social problem. Japan’s community-based welfare seeks to build a welfare community in which the elderly members can lead a self-reliant life. However, this is by no means trying to revive traditional community life. The Japanese scheme tries to achieve this ideal through the partnerships between government agencies, the family, the residents in the local communities, NGOs and private businesses, rather than relying only on the family and traditional social ties in the community. An argument is made for the introduction of this Japanese concept and experience by the policymakers of other countries, even though the specific conditions of these countries must be carefully taken into account.

Chapter 5 discussed the future course of Japan’s assistance, based on the reviews made in the preceding chapters.

The aging society that emerges as a result of economic development is an issue that needs be addressed through initiatives taken by the country itself. However, “aging in the developing countries,” which is characterized by the progress of aging while still at the stage of a low income society, has a high risk of jeopardizing the life of the elderly since the issues related to the aging of the population are aggravated by the problem of poverty. This risk should be avoided through foresighted policy measures, and overseas assistance has a major role to play in helping to develop the human resources, funds and technologies to put such measures in place. East Asia is highly likely to be the first region of the world to experience a dramatically rapid aging of its population. Japan has accumulated considerable experience and learned lessons as a developed country with a uniquely rapidly aging population. There are high expectations for Japan to extend assistance to its East Asian neighbors in relation to the aging issue.

There are several important points that must be taken into account when considering aging-related assistance and cooperation among the countries in the immediate future. Firstly, aging countries should be encouraged to gain a deep understanding of the realities of an aged society and to establish self-reliant problem solving processes in advance. Secondly, we should provide opportunities and fora for all the stakeholders, policy-makers, opinion leaders, academic researchers, private sectors and civil societies in East Asian countries, including Japan, to “think together and walk together” concerning the issue of the aging of the population. There is a lot for Japan itself to learn from the experience of other countries in the fora. Thirdly, the Japanese experience should once again be compiled and systematized so that it could be shared with the other countries in the above-mentioned fora. This could also help Japan to design its assistance and cooperation programs effectively. Fourthly, when we consider the technical assistance in this area, we should design it in the context of a larger comprehensive framework of social policies for an aging society with full regard to social and economic considerations, instead of highlighting a specific issue which is only a part of the whole landscape. Fifthly, we should focus on the design and implementation of the policy measures that are conducive to maximizing the benefits of their demographic dividend until the arrival of an aging society.

Naturally, individual assistance projects must be formulated with close attention to the political, economic and social realities of the recipient country. Of particular importance in such an endeavor will be

a good understanding on the part of the recipient country's local communities, who will be the real frontline actors in the implementation of any policy measures for the aging of their population.

Foreword

Toshio Watanabe

In the orthodox theory of development economics, economic development is regarded as a process in which a modern urban industrial sector with a high level of productivity is created and continues to expand in an economy dominated by a traditional rural subsistence sector, characterized by low marginal labor productivity with a surplus labor force. It is expected that the surplus labor in the rural sector will gradually be transferred to the industrial sector and this will lead to an increase in the proportional contribution of this sector to the economy.

Through this process the country is then expected to reach a “turning point” in terms of economic development and from then on enters a new phase in which the industrial structure becomes more sophisticated and the agricultural sector more modernized. The basic framework for understanding the process of interaction between these two sectors in the economic modernization of a traditional society is the very orthodox theory of economic development as represented by the dual sector development model proposed by W. Arthur Lewis. The framework for this model has been inherited to this date as a proposition that is not to be challenged.

This model assumes that developing countries have the initial conditions that are, as with Asian countries, characterized by limited possibilities for the expansion of arable land and by a human population that is already too numerous, but which still has a high rate of growth. The consequence of this is a situation described as a “low-level equilibrium trap,” whereby the growth in the population quickly absorbs any fruits of technological advancement. It is therefore considered that escape from such a “trap” is not easy.

In short, the single most important challenge for this school of the orthodox theory of economic development is the elimination of the surplus population that is retained in the traditional sectors. The underlying premise of course is that the population explosion has produced this surplus labor.

In the developing countries of today, however, a new social dynamic that defies this conventional hypothesis seems to have started to gain momentum. Although the average income remains low, the mortality rate is declining to a minimal level. The birthrate is declining at an even faster rate, resulting in a significantly rapid drop in the number of newborn babies. The aging of the population is progressing at a similarly fast rate. In summary, the phenomenon of the aging of the population combined with a lower birthrate, such as that being experienced by Japan, Europe and the US is rapidly spreading among low-income societies as well.

It may be an exaggeration to say that the premises that orthodox development economics was based on are not valid any longer. However, in East Asia, the fastest growing region in the world, it is quite possible that the major focus of discussion one generation from now will be on how to address the issue of the increased burden of social costs, not from a surplus population, but from an aging population with a low birthrate.

The population dynamics of Asia in recent years are indeed showing some significant changes. Though considered peculiar among developed countries, the tide of population aging with a lower birthrate is engulfing Asia at an incredible rate. The total fertility rate (TFR) means the average number of children a woman in the population would be expected to give birth to during her lifetime. Japan’s TFR dropped to 1.29 in 2003 and this was a major news item in June 2004.

The aging of the population and a declining birthrate is inevitable in a country where the average life expectancy has reached the world’s highest level and the number of newborn babies is dropping at a rapid rate. This phenomenon threatens to deprive any country of its growth potential by lowering the labor input

and domestic savings rate as well as by increasing the burden of social costs, including old age pensions and medical care costs. This is not just occurring in Japan, but other developed countries are also suffering from this “malaise” to a greater or lesser extent.

A greater problem, however, is the fact that the Asian countries are facing substantial aging of population and a declining birthrate while their income per capita is still at a low level. A serious problem will emerge with respect to their ability to bear the burden of social costs. The TFRs of the NIEs (Korea, Taiwan, Hong Kong and Singapore) are all between 0.94 and 1.24; rates which are lower than that of Japan.

These NIEs may be able to bear the social cost burden since their income levels have already exceeded the US\$10,000 threshold. However, the aging of the population with a declining birthrate is progressing unchecked in countries such as Thailand and Indonesia, whose per capita average annual income falls far short of US\$4,000. Thailand, whose per capita income barely exceeds US\$2,000, has already seen its TFR fall to 1.80.

Of course the proportion of the elderly (65 years or older) in the total population is still low in the NIEs and Southeast Asian countries in comparison to Japan’s level of 18.1%. At present, therefore, Asia is experiencing the problem of having fewer children, but with a population that is not yet aging. However, the implication of this is that the aging of the population could take place very rapidly in the years to come. It took 24 years for the proportion of the elderly in Japan to double from 7% to 14%. The corresponding periods of time are estimated to be 22 years for NIEs and less than 20 years for Southeast Asia. Less developed countries tend to experience a faster population aging rate with a lower birthrate. This is also an empirical rule that has been observed in the demographic history of developed countries, including Japan and Europe.

Perhaps the focus will next be on China. The TFR in China has already declined to below 2.0 and the percentage of the elderly population has come to exceed 7%, while the average income level reached US\$1,000 only recently. In terms of these figures, China is steadily catching up with the NIEs whose average income levels are 10 to 20 times as high, and even with Japan, whose income level is 30 times as high. The average life expectancy is also continuing to rise. China’s One-Child Policy was introduced in 1979 and therefore the country will soon become an aging society with a declining birthrate. In today’s China, one of the most pressing needs is to establish social safety nets, including unemployment insurance, medical insurance and old-age pension systems, and the aging of the society along with a declining birthrate will put an excessive burden on fiscal policies. Undoubtedly, China has enormous potential for growth. However, it is also true that this demographic change and the resulting rise in the social cost burden will become a major factor constraining growth, along with the aggravation of environmental problems and the severe shortages of oil and other forms of energy.

There is another issue that needs to be discussed. A new trend has emerged in population economics in relation to the concept of the “demographic dividend.” In contrast to traditional development economics that looked at past population explosions in a negative way, the new trend is prompting new studies by regarding it as a positive factor for development.

According to the concept of the demographic dividend, a declining birthrate works in favor of economic development by: (a) lowering the proportion of the dependent juvenile population and alleviating the child-raising burden borne by the society and the households, and (b) raising the ratio of the productive-age population relative to the non-productive-age population. The combination of these two factors brings about an increase in the domestic savings rate of the country, which in turn increases the availability of investment capital.

In econometric terms, the period of the demographic dividend commences when the rate of increase in the productive population exceeds that of the non-productive population, and terminates when the situation is reversed. The point in time at which the difference between these two rates is the greatest represents the peak of the demographic dividend; the period preceding the peak is the early demographic dividend period

and that following the peak is the late demographic dividend period.

However, not all countries will enjoy a demographic dividend. China and Thailand have been experiencing a demographic dividend through the abundance of their young labor force and high savings rates, but both countries could see their demographic dividend period end before they accomplish a sufficient shift in the labor force from agriculture to manufacturing. This is because the phenomenon of population aging and a declining birthrate has emerged in these two countries while the conditions of low income levels and a surplus population still remain (see Chapter 3). Korea might be a typical example of a country in Asia that has successfully achieved development by riding on the wave of the demographic dividend. In stark contrast, the Philippines exemplifies the opposite end of the spectrum and continues to suffer from poverty after failing to reap the benefits of the demographic dividend (see Chapter 2).

In many East Asian countries, the institutional foundations for medical care, pensions and welfare are still weak, yet the rate of the aging of their populations and rate of decline in their birthrates is much faster than was experienced in Europe, the United States or Japan. How can they address such problems in this new age of population issues? This is a great challenge. Asia may not be able to resort to either the Nordic style of high-cost/high-quality welfare model that is based on the proactive involvement of the government or to the US model that leaves old-age security to market mechanisms as the personal responsibility of the citizens. Perhaps the applicability of the Japanese model that is characterized by community-based welfare services within the sphere of people's daily livelihood should be tested in the Asian context (see Chapter 4).

The policy implications of the demographic dividend theory may be summarized as follows: Although today's developing countries are blessed with the conditions of 'late-comer benefits' in the sense that they could receive a demographic dividend in the low-income stage of development, such a dividend could be 'used up' easily under the conditions of a surplus population coupled with an insufficient shift of the major industry from agriculture to manufacturing. Policymakers should be aware of this possibility, and should always keep in mind how the demographic dividend, should be utilized while it is still available as seed money for future progress and welfare.

Chapter 1

Population Dynamics in Developing Countries: Current Situation and Outlook

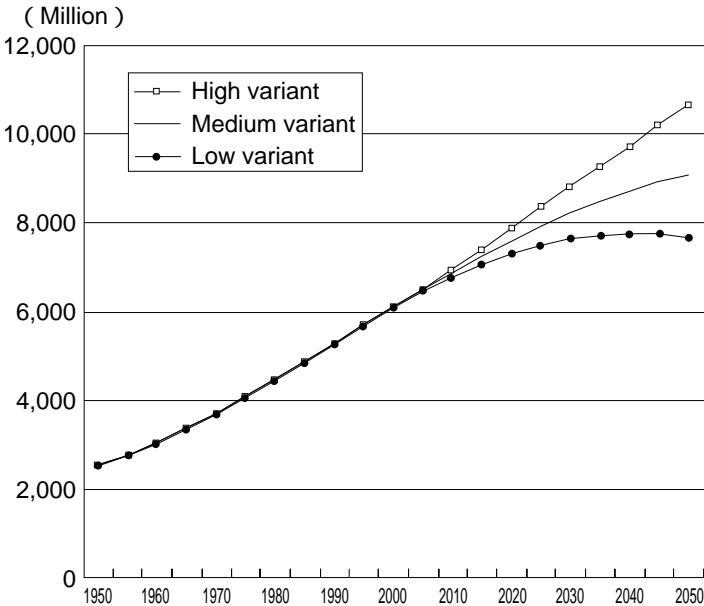
Keiichiro Oizumi

1-1 Characteristics of World Population Dynamics

According to the World Population Prospects Report 2004 Revision compiled by the UN, the world population increased to 6 billion in 2000 from 2.5 billion in 1950. It is expected to continue increasing and reach 9.1 billion in 2050 (the medium variant estimate in Fig. 1-1). The annual rate of the population increase, however, is expected to slow down from the 1.8% of the period 1950-2000 to 0.8% in the 2000-2050 period. As shown in Fig. 1-1, world population will peak at around the year 2040 and start declining according to the low-variant estimate, even though it will hit the 10 billion mark by 2050 in the high-variant estimate.

The estimated slowdown in the increase of the global population reflects the drop in the birthrate that has been observed on a global scale. The world crude birthrate¹ (hereinafter referred to simply as the birthrate) declined from 37.5‰ in the period 1950-1955 to 22.5‰ in the 1950-2000 period. This global decline in the birthrate is expected to continue with an estimated birthrate of 13.8‰ in the 2045-2050 period. In terms of the total fertility rate², hereinafter referred to as the TFR, the 5.02 recorded in the period 1950-1955 dropped to 2.79 in the 1995-2000 period and is expected to decline further to 2.05 in the 2045-2050 period. The global average life expectancy at birth on the other hand has risen dramatically over the

Figure 1-1 World population estimates



Source: UN World Population Prospects

¹ The number of births per population of 1,000: usually expressed in ‰.

² The average number of births that a woman would have during her lifetime. It is calculated by summing up the age-specific birthrates of women between the ages 15-49, and represents the number of children a woman would have if she gave birth at the age-specific birthrates.

last 50 years. The 46.6 years recorded in the period 1950-1955 has jumped to 64.6 years in 1995-2000, and is expected to rise further to 75.1 in 2045-2050.

Consequently, the aging of the population will take place on a global scale (Global Aging). The proportion of the elderly (the proportion of the population of those 65 years of age or older) has increased slowly from 5.2% in 1950, to 5.7% in 1975 and to 6.9% in 2000, but it is expected to rise sharply in the coming years, such as 10.5% in 2025 and 16.1% in 2050.

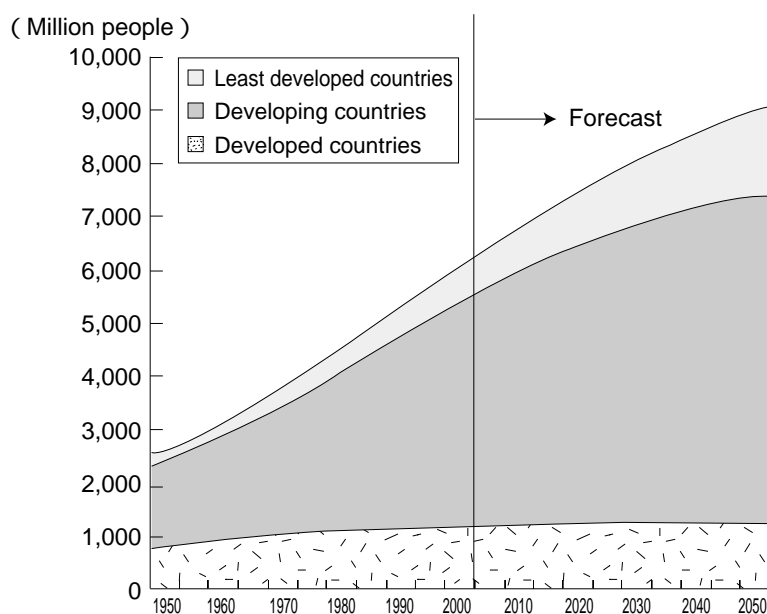
1-2 Characteristics of Population Dynamics according to Income Levels

With respect to the population dynamics according to income levels, the population of the developed countries increased from 813 million in 1950 to 1,193 million in 2000, while that of the developing countries grew rapidly from 1,077 million to 4,892 million during the same period. Accordingly, the share of population held by the developed countries fell from 32.3% in 1950 to 19.6% in 2000, while that of the developing countries rose from 67.7% to 80.4%.

According to the same estimates, the population of developed countries will increase to 1,249 million in 2025, but will go down slightly to 1,236 million in 2050. Meanwhile, developing countries will see their total population reach 6,656 million in 2025 and 7,840 million in 2050, though the rate of increase will decline. The proportion of the world population shared between developed and developing countries in 2050 will be 13.6% and 86.4% respectively. As can be seen in Fig. 1-2, furthermore, the least developed countries are expected to account for an increasingly greater share.

In the past, the population aging process was a phenomenon associated closely with developed countries. The proportion of the elderly in developed countries was already as high as 7.9% in 1950 and jumped to 14.3% in 2000. It is expected to rise further to 25.9% in 2050. In the future, however, the wave of population aging is expected to hit developing countries as well. The proportion of the elderly in the population has risen from 4.1% in 1950 to 5.9% in 2000, and is expected to increase sharply to 8.6% in

Figure 1-2 Population trends according to income level



Source: UN World Population Prospects

2025 and to 14.6% in 2050. In absolute numbers, developing countries had only 66.84 million elderly citizens in 1950, but they had 250.3 million in 2000 and are expected to have 1,144.2 million in 2050. Accordingly, the share accounted for by the developing countries of the total elderly population of the world will increase from 59.4% in 2000 to 78.1% in 2050.

1-3 Characteristics of Population Dynamics by Region

Population dynamics naturally vary from one region to another. The UN Population Estimate divides the world into six regions: Africa, Asia, Europe, Latin America and the Caribbean, Northern America and Oceania. According to this division, Asia has the largest population with 1,396 million in 1950 and 3,676 million in 2000. Its share of the global population increased from 55.4% in 1950 to 60.4% in 2000. The fall in the birthrate, however, is dramatic in Asia, going down from 43.0‰ in the 1950-1955 period to 22.1‰ in the 1955-2000 period, and will presumably decline further to 12.3‰ in the 2045-2050 period. The Asian population in 2050 is therefore estimated to be 5,217 million, representing a reduced share of 57.5% of the global population. The UN definition of Asia includes India and Bangladesh, which will continue to have high birthrates. Looking at East Asia only, its population, though increasing from 1,828 million in 2000 to 2,131 million in 2035, is expected to come down to 2,089 million in 2050. Accordingly, East Asia's share of the global population will decline significantly from 30.0% in 2000 to 23.0% in 2050.

Table 1-1 shows the yearly estimates for other regions. Africa accounted for only 8.9% of the global population with 224 million in 1950, but this share rose to 13.4% with an almost quadrupled population of 812 million by 2000. The population increase is likely to continue in Africa, which is expected to reach a population of 1,937 million in 2050 with a global share of 21.3%.

Europe has been and will be the region with the highest proportion of the elderly: 8.2% in 1950, 14.7%

Table 1-1 Comparison of the population by region (medium variant) (Million people)

	World	Africa	Asia		Europe	Latin America and the Caribbean	Northern America	Oceania
				East Asia				
1950	2,519	224	1,396	786	547	167	172	13
1955	2,757	250	1,540	863	575	191	187	14
1960	3,024	282	1,699	939	604	219	204	16
1965	3,338	319	1,897	1,041	634	251	220	18
1970	3,697	364	2,140	1,177	656	285	232	20
1975	4,074	416	2,395	1,311	676	322	243	21
1980	4,442	479	2,630	1,420	692	362	256	23
1985	4,844	553	2,888	1,527	706	403	269	25
1990	5,280	636	3,169	1,645	721	444	283	27
1995	5,692	723	3,430	1,742	728	484	299	29
2000	6,086	812	3,676	1,828	728	523	315	31
2005	6,465	906	3,905	1,899	728	561	331	33
2010	6,843	1,007	4,130	1,964	726	599	346	35
2015	7,219	1,115	4,351	2,025	721	634	361	37
2020	7,578	1,228	4,554	2,075	715	667	375	39
2025	7,905	1,344	4,728	2,108	707	697	388	41
2030	8,199	1,463	4,872	2,126	698	722	400	43
2035	8,463	1,584	4,992	2,131	688	744	411	44
2040	8,701	1,705	5,092	2,128	677	761	421	45
2045	8,907	1,823	5,168	2,114	666	774	430	47
2050	9,076	1,937	5,217	2,089	653	783	438	48

Source: UN World Population Prospects

in 2000 and 27.6% in 2050. The region with the lowest proportion of the elderly is Africa with 3.2% in 1950, a negligible increase to 3.3% by 2000 and a very modest increase to 6.7% by 2050. The aging of the population is expected to take place most rapidly in Asia. From 1950 to 2000, the proportion of the elderly in Asia rose slightly from 4.1% to 5.9%, but will likely jump dramatically to 17.5% by 2050. Asia's share of the global elderly population was 43.9% in 1950, rose to 51.3% in 2000, and is expected to go up further to 62.2% by 2050.

1-4 Aging Population with a Declining Birthrate in Developing Countries and its Implications for Future Development Assistance

In the discussion of world population issues, it has almost been taken for granted that the developed countries face a problem of the aging of their populations along with a low birthrate, while the developing countries suffer from a population explosion (high rates of increase in the population). Recently, however, the problem of an aging population with a declining birthrate has emerged in developing countries as well.

This problem is becoming severe most noticeably in East Asia. Let us take a look at this in terms of the rate of aging, which is often expressed by the number of years for the proportion of the elderly in the population to double from 7% to 14% (doubling time). Table 1-2 summarizes the doubling time of the proportion of the elderly in the population of selected East Asian countries. Prepared according to the UN World Population Prospects, this table shows that the rate of aging of the population of these East Asian countries is at least comparable to or higher than that of Japan (24 years), with a rate that is recognized as unprecedented in the world.

With their per capita income in excess of US\$10,000, Korea, Taiwan, Singapore and Hong Kong may be understood to be experiencing the type of population aging with a declining birthrate that the developed countries underwent in different phases of development. Other East Asian countries, however, are likely to shift to an aging society while their per capita income levels still remain low. There are high expectations for Japan to play a role in addressing issues associated with the progressive aging of the population in East Asia, as Japan's population aging process is the forerunner of this phenomenon in the region. Assistance and cooperation in relation to the policy measures that these countries should adopt is very much needed, based on Japan's experience and the lessons it has learned.

From these standpoints, we have established the following three perspectives in this study with the aim of providing a framework for understanding the newly emerging issue of population aging with a declining birthrate in developing countries, which can also offer a basis on which to consider the future direction of development assistance:

The first perspective is to examine in detail the characteristics of the aging of the population with a

Table 1-2 Rate of population aging in East Asia (medium variant)

	Proportion of the elderly 7%	Proportion of the elderly 14%	Doubling time (Year)
Japan	1970	1994	24
Korea	1999	2017	18
Hong Kong	1983	2014	31
Singapore	2000	2016	16
Thailand	2005	2027	22
Malaysia	2019	2044	25
Indonesia	2019	2041	22
Philippines	2026	2049	23
China	2001	2026	25

Source: UN World Population Prospects

declining birthrate in developing countries. What are the forces making up the population dynamics of developing countries? What unique features, if any, do they have in comparison to developed countries? Questions such as these should be clarified. In the assessment of policy measures and planning of assistance programs, it is extremely important to closely analyze the population dynamics of individual countries and to examine the background and current situation of the population aging with declining birthrate (see Chapter 2).

Secondly, the impact of population dynamics upon economic development will be discussed. There is a certain time lag between a decline in the birthrate and the aging of the population. This time lag represents the period of economic growth helped by the demographic dividend, since the proportion of the productive population engaged in economic activities is high. Developing countries should implement policies that will enable them to reap the benefits of any demographic dividend to the fullest extent, and the international community is encouraged to provide assistance that would magnify the effect of such policies. In addition, during the period of population aging, measures will be needed to alleviate the negative impacts of demographic changes on economic development and to help the elderly live a stable life. At the core of these measures is a social security system, which must be designed with the utmost care, since the population dynamics are changing fast and the income level is still low. Assistance from the developed countries should not be in the form of the mere transplantation of their systems and experience; the assistance programs should be customized, taking into consideration the local conditions of the recipient country (see Chapter 3).

Finally, we will discuss the role of community welfare services in supplementing national-level social security systems in the context of overseas development assistance. A developing country will find it difficult to smoothly transform itself into a 'welfare state,' since it will enter the era of an aging society before its income becomes sufficiently high or its institutional infrastructure is fully established. Even if it is successful in converting the country to a welfare state, the central government will only be able to provide limited social services due to budgetary constraints. Unlike medical care or general pension systems, social welfare is a social security service that requires the involvement of the family and the local community. There is a need for the community to shoulder the social welfare burden for its elderly citizens, in parallel with national efforts to build up social security systems for the entire population. While this need has been pointed out by international development institutions, including the World Bank and the Asian Development Bank, it is not yet clear what type of assistance would be effective for this purpose. In recent years, Japan has been constructing a framework for community-based welfare services, as was embodied in the Nursing-care Insurance for the Elderly that was introduced in the year 2000. Perhaps new types of overseas assistance may be developed by building upon the experience of this Japanese framework with due attention to the local conditions of the recipient countries (see Chapter 4).

Chapter 2

Population Aging with a Declining Birthrate in Selected Countries and their Economic Growth

Hirokazu Kajiwara

2-1 Introduction

The demographic transition³ that began in the 19th century with a decline in the mortality rate extended from the UK to Europe and the US, and then to Japan. The process also started in the developing countries of Asia, Africa and Latin America in the 20th century. The demographic transition of the developing countries differs from that of the developed countries in that the population of the former countries increased at such a high rate that it was described as a 'population explosion.' In recent years, however, the rate of population increase in developing countries has slowed down significantly. While a variety of factors have contributed to this, the birthrate is falling in developing countries as it has in the developed countries. The population increase and the decline in the birthrate in developing countries occurred over a much shorter period of time than in the developed countries. This temporal compression of the demographic transition has accelerated the arrival of an aging society with a declining birthrate, which will inevitably occur when the population explosion is over. The most typical example of this is East Asia, which is projected to enter the era of an aging population with a declining birthrate in the early part of the 21st century. The same will happen in other developing countries over different time periods; this is a law of population dynamics. In other words, the developing countries that struggled with the problem of a population explosion in the 20th century are doomed to face the problem of an aging society with a declining birthrate in the 21st century. It is critically important that developing countries achieve a higher rate of economic growth than ever before to tackle this major problem. A society affected by poverty and unemployment simply cannot support a large number of elderly people.

With these thoughts in mind, this Chapter will analyze the demographic transition, the phenomenon of an aging population with a declining birthrate, and economic growth in the following selected developed countries (UK, Japan), as well as NIEs (Korea, Hong Kong, Singapore), China, Southeast Asia (Thailand, Philippines), South Asia (India), Latin America (Brazil, Mexico) and Africa (Egypt, Kenya).

2-2 Development and the Demographic Transition

2-2-1 Changes in demographic phase

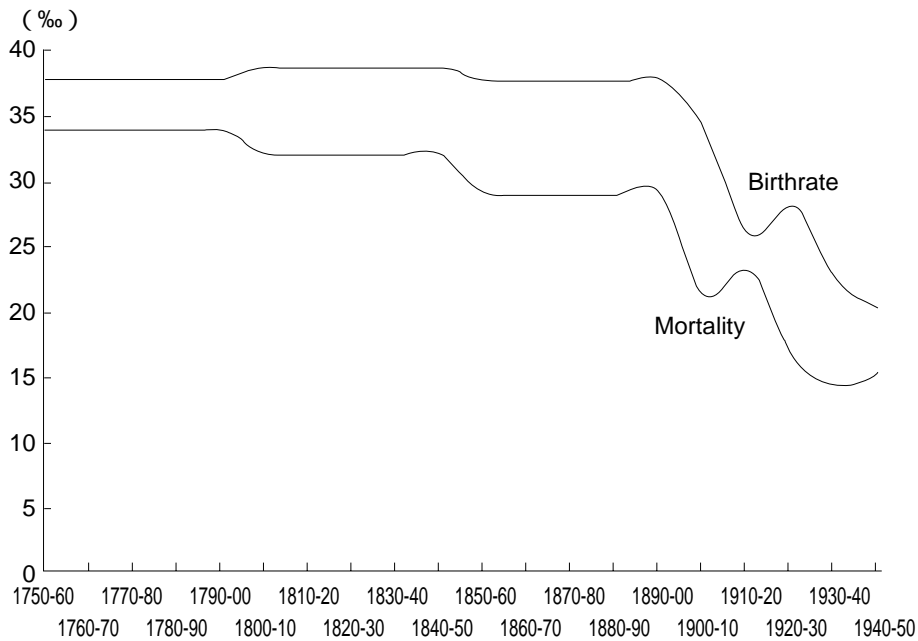
Fig. 2-1 is a conceptual chart illustrating the evolution of the mortality rate and the birthrate in the developed countries, prepared based upon the UN population estimate.⁴ For a certain period until the early 19th century, the developed countries were in Phase 1 of the demographic transition, characterized by both a high rate of mortality and a high birthrate as well as by a low rate of natural population increase.⁵ This phase was likely preceded by unstable demographic dynamics with negative rates of natural population increase caused by mortality rates being higher than birthrates at times and with population increases due to

³ This term refers to the long-term change in the birthrate and mortality rates. It is often used to describe the shift in the demographic structure of a developing country from high-birthrate/high-mortality to low-birthrate/low-mortality.

⁴ The ensuing analyses are drawn from Kajiwara et al. (2000).

⁵ The term is defined as the rate of increase in the population attributable to the difference between the birthrate and the mortality rate. The more commonly used rate of increase in the population also takes account of any increase/decline in the population due to immigration and the like.

Figure 2-1 Population dynamics in developed countries (1750-1950) (conceptual)



Source: United Nations (1971) *The World Population Situation in 1970*, New York.

large-scale migration at other times. The population dynamics became stable in the 19th century, as shown in the chart. In the mid-19th century, the mortality rate started to fall and this accelerated after the early 20th century. Meanwhile, the birthrate remained high, raising the rate of the natural population increase. This time period represents Phase 2 of the demographic transition (high-birthrate/low mortality) characterized by a rapid increase in the population. During the 20th century, the birthrate dropped rapidly, and, coupled with the continuing low level of mortality, brought about a slowdown in the rate of increase in the natural population. This is Phase 3 of the demographic transition, leading the way to the fourth and final phase. In Phase 4, both mortality and the birthrate become stable again, though this time at a low level, and the rate of increase in the natural population goes down further.

From this experience of the developed countries, three major focuses of attention on the issue of the demographic transition can be identified: (1) factors contributing to the decline in mortality from Phase 1 to Phase 2, (2) factors contributing to the delay in the decline in the birthrate that characterizes the high-birthrate/low-mortality Phase 2, and (3) factors contributing to the decline in the birthrate in Phases 3 and 4.

Factors contributing to a decline in mortality can be generally inferred with relative ease; it is necessary to think simply of how our own lives can be extended from birth to death. Maternal health and nutritional conditions are important at the prenatal stage and so are the obstetric standards at childbirth. During infancy, proper medical care and nutrition are indispensable in order to compensate for the intrinsic physical weakness of children and to protect them from illness. At the later stages of a person's life, too, improvements in good nutrition, medical care and hygiene are always needed to ensure longevity. Mortality falls, therefore, when innovations are made in medicine or when hygiene and nutritional conditions are improved. In Western Europe, mortality declined in the 18th and 19th centuries when there were many advances in science and productivity increased dramatically due to the agricultural revolution followed by the industrial revolution. This change started first in England and Wales in the mid-18th century. As shown in Fig. 2-1, the average mortality in the developed countries in 1800-1850 was 32‰, but that of England and Wales was less than 30‰. The mortality rate fell first in England and Wales, which went through the industrial revolution ahead of other countries and laid the foundations for a worldwide flourishing of

modern science.

2-2-2 Extension of the demographic transition

It is generally recognized that there was a parallel and interrelated evolution of the population (mortality drop) and the economy (per capita production) during the British industrial revolution. However, a mortality drop and population increase were observed in the 1740s, whereas the economy began its sustained growth only in the 1780s; the growth in population had already begun before the start of sustained economic growth. The UK was slower than other European countries in compiling statistics on population dynamics, and data on the early years is not always reliable. Indeed, there has been a long debate as to whether the population increase was due to a drop in mortality or an increase in the birthrate.⁶ Those who argue that the population increase was brought about by an increased birthrate cite reasons including the increased food supply thanks to the agricultural revolution, increased nuptiality and lower age of marriage, while the supporters of the mortality drop theory point to the advances in medical hygiene, better nutrition thanks to the increased food supply, the control of infectious diseases, the reduced incidence of disasters, and vaccination against smallpox as the reasons. While this debate has not been settled, it is in any case evident that changes in productivity and technological progress in medicine and hygiene influenced the population dynamics of the time.

The industrial revolution that began in the UK spread to Western Europe starting with the second half of the 18th century, and produced a decline in mortality (or a decline in mortality with an increased birthrate). S. S. Kuznets who analyzed the stage of takeoff in developed countries concluded that the characteristics of modern-day growth are linked to sustained increases in per capita production and the total population.⁷ This is proof that modern-day growth has caused the demographic transition. He further argued that demographic and social changes are brought about in association with sustained economic growth. The decline in mortality is brought about by improvements in nutritional conditions and medical and hygiene techniques; to an individual this is a consequence of passive changes. The birthrate, however, is a consequence of proactive behavior, determined by social norms, religious beliefs and individual will. Accordingly, the decline in the birthrate is produced by changes in social norms, religious beliefs and individual ways of life, in which the changes take rather a long time to occur. Mortality already falls at the initial stage of modern-day growth, whereas the birthrate goes down only as a consequence of social changes brought about by sustained economic growth; hence, it is believed, there is a time lag between the decline in mortality and the decline in the birthrate.

In the face of a declining birthrate, Europeans began research on possible causes in the mid-19th century. Much of this research looked to country-specific factors such as the unique property inheritance system or cultural traditions in France or the welfare system in Germany. A large variety of factors were cited in later years, but most focused on the effects of economic progress. The effects of economic development on the birthrate-related aspects of people's lives include: a decline in infant mortality (fewer losses of infants reduces the need to have more babies), enhanced educational opportunities (people's thinking towards childbearing shifts in the face of increased educational expenses and the fuller participation of women in the society through increased educational opportunities for women), extension of the period of education (together with increased educational expenses and women's fuller participation in the society, the longer period of education delays the age of marriage and suppresses expectations with regard to childbearing), establishment of elderly care and other social security systems, and the availability of improved and lower-cost contraceptive methods. Although there is a fair amount of consensus about the long-term birthrate decline in the developed countries, it has not necessarily been justified by statistical evidence due to lack of historical data on all of the above factors.

⁶ Drake (1969)

⁷ Kuznets (1959)

2-2-3 Acceleration of the demographic transition

At any rate, a major factor in the demographic transition is the decline in the birthrate, which functions both in the population increase phase and in the final phase. The decline in the birthrate first began in the most advanced regions of Western Europe and then spread to Eastern and Southern Europe. In Japan, a country that experienced modernization long after Europe, the decline in the birthrate also began much later. However, the time period required from the initiation of the birthrate decline to the end of population increases is shorter for latecomers. G. Mackenroth, a German demographic scholar, termed this the 'law of phase transition acceleration' and argued that the later the birthrate decline starts, the shorter is the period for the completion of the decline (the state of mortality and birthrate stabilization at low levels).⁸ This hypothesis is analogous to the analysis that the economic development of a country spreads to other countries and the process of change is compressed in the latecomer countries. If it is assumed that sustained economic growth changes people's thinking about childbearing, latecomer countries, under the circumstances of faster economic changes, would be expected to experience faster demographic changes. Accordingly, developed countries, including Japan, already completed the demographic transition by the mid-20th century and some of them even started to see their population falling.

Long-term changes in mortality and the birthrate transform the demographic structure from one of a high proportion of young dependents in the population to one of a high proportion of productive members of the population and then to one of a high proportion of elderly in the population. In the case of a demographic structure with a high proportion of young dependents in the population, the average family has a large number of children, and the household has little room for directing its income to savings as it has to spend the money to care for the children. The well-known growth linkage of 'savings investment growth' is unlikely to happen under these circumstances. In a demographic structure with a high proportion of productive members of the population, insofar as sufficient productive employment opportunities exist, the number of children would be reduced, and households would be able to direct at least a part of their income to savings, which in turn promotes investment. When the proportion of aged elderly in the population increases, retired people reach into their savings for their living, resulting in increased consumption and decreased savings. The economy gradually begins to lose its vitality, even though it may not turn to negative growth immediately, due to its mature state. A demographic transition that begins with a drop in mortality is indeed caused by socioeconomic changes. It is, however, in its turn a factor promoting socioeconomic changes, and the progress of the developed countries, while bringing about a demographic transition, was also supported by this demographic transition.

2-3 Demographic Transition in the Developing Countries

2-3-1 From Phase 1 to Phase 2 – factors causing a drop in mortality

The demographic transition in developing countries has been analyzed based on the experience of the developed countries. However, at the time that today's developed countries were at the early stage of economic development and the demographic transition was not yet complete, approaches to projecting the subsequent demographic transition of countries were rather different. In his paper published in 1929, W.S. Thompson divided countries into three groups according to their differing stages of demographic transition.⁹ To the first group belonged western European countries that had low rates of natural population increase with birthrate and mortality rates balanced at low levels. The second group consisted of Central European countries that still had high rates of natural population increase with rapidly declining mortality rates and slowly declining birthrates. The third group comprised Russia (Soviet Union), Japan and India

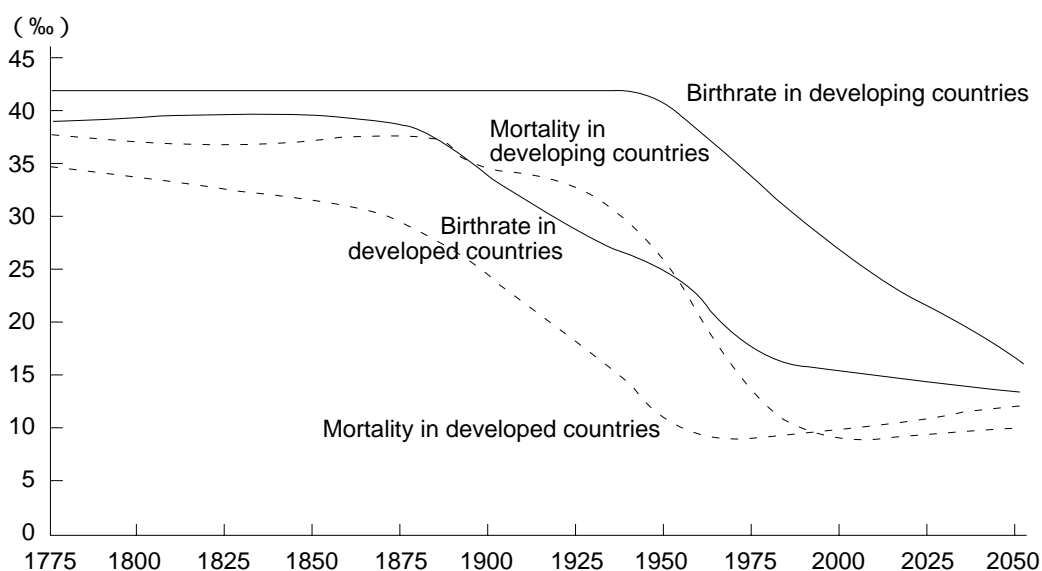
⁸ Minami (1964)

⁹ Thompson (1929)

that had reached Phase 2 of the demographic transition and had very high rates of natural population increase. He argued that the second group would eventually reach the stage of the first phase and also suggested that the third group would move to the second group, though with some reservations due to insufficiency of the data. He also made projections of the future population based on the demographic transition. In 1950, F. Notestein revised Thompson's analysis in accordance with the subsequent statistical data and moved Japan and Soviet Union into the second group.¹⁰ While Thompson and Notestein proposed the categorization of the demographic transition into three stages, others offered the idea of dividing the demographic transition into four phases as we have seen, or into five phases (where the fifth phase is characterized by a diminishing population because the birthrate is lower than the mortality rate). Despite the difference in the number of phases, the theory of the demographic transition has proven to be valid, since the developed countries have indeed completed their demographic transition. However, it is not yet certain if this theory is also valid for developing countries, and questions remain as to whether the principle of the demographic transition can be generalized for all countries, including the developing countries. The theory of the demographic transition that was derived from the population dynamics of the West was valid for Japan, a non-western country, and in an accelerated manner. The Japanese experience is being repeated in certain developing countries in East Asia at an even further accelerated rate, but the changes that are taking place in other developing countries do not warrant considering this as a universal phenomenon.

As Fig. 2-2 shows, the process of the demographic transition has taken place in developing countries as well, though with a time lag with respect to that in the developed countries. However, the demographic transition in the developing countries presents different characteristics from those of the developed countries. In the transitory step from Phase 1 of the demographic transition to a lower mortality in Phase 2, first of all, the initial mortality and birthrates are higher than in the case of the developed countries. Many developing countries are located in tropical or subtropical zones, or in regions with desert climatic conditions, and the harsh living environment leads to a high infant mortality and short average life expectancy. Traditional social systems therefore have been constructed in such a way as to secure a high

Figure 2-2 Demographic transition (1775-2050) (conceptual)



Source: The World Bank (1982) *World Development Report*, Washington D. C.

¹⁰ Notestein (1950)

level of fertility to maintain the size of the population. These include, for instance, a social or religious value system that encourages having many children, polygamy, and marriage at a young age. As can be seen from Fig. 2-2, mortality in developing countries was over 35‰, far above the corresponding level in the developed countries. The birthrate, however, was far in excess of 40‰ since the social system was conducive to a high birthrate.¹¹ During this high birthrate/high mortality Phase 1, the rate of natural population increase never exceeded 10%, staying in the range of 2-7%, a level similar to that which had been experienced by today's developed countries. The mortality drop began in the 1920s and 1930s, gaining speed in the 1950s through 1970s. It was in the upper range of 30‰ in the 1910s, fell to below 30‰ in the 1930s and stayed there in the 1940s. During the 1950s and 1960s, however, it went down to below 20‰, to the lower range of 10‰ in the 1970s and to below 10‰ in the 1990s.

The mortality decline in the developed countries occurred along with improvements in nutritional conditions and in medical and hygiene technologies. These improvements were made gradually over time in pace with socioeconomic progress; therefore mortality fell over a similarly long period of time. The mortality drop in the developing countries occurred for the same reason. However, it occurred very rapidly, since better medical and hygiene technologies and methods were introduced from developed countries at a faster pace, especially after World War II, through government aid. While the decline in mortality is to be welcome, the problem was that the birthrate in Phase 1 of the demographic transition was so much higher than the corresponding rate in the developed countries that the rate of the natural population increase was much higher than that of the developed countries in the mortality-declining Phase 2. The rate of the natural increase was 2.5-3.0% on average, with some countries recording higher rates. With this high rate of increase, the population would be expected to double in some 20 years. The ratio of the world population between the developed countries and the developing countries was 32.9 vs. 67.1 in 1950, but, reflecting the high rate of the natural population increase in the developing countries, it became 25.5 vs. 74.5 in 1980 and 19.6 vs. 80.4 in 2000. The average rate of the natural population increase in developing countries was 1.48% in 2000-2005, converging almost exactly with the global average of 1.21%. The UN World Population Prospects Report nonetheless projects that it will not be until the mid-21st century that both the birthrate and mortality rates in developing countries become stabilized at low levels again. The population in developing countries will keep on increasing for some time to come. The global population, which was 4.07 billion in 1975, reached 6.08 billion in 2000. The UN population estimate projects that the 2050 global population will be 10.64 billion (with developing countries representing a 86.5% share) in the high variant case and 7.68 billion (86.2%) in the low variant case. Developing countries thus continue to face the development challenge of an increasing population.

2-3-2 From Phase 2 to Phase 3 - factors causing a drop in the birthrate

The decline in the rate of the natural population increase in the developing countries presents a new challenge in addition to the increase in the total population: the challenge of an aging population with a declining birthrate brought about by the progress of the demographic transition. Between the periods 1950-1955 and 2000-2005, the average annual birthrate declined from 37.5‰ to 24.1‰ globally, from 22.4‰ to 11.0‰ in the developed countries, and from 44.6‰ to 23.5‰ in the developing countries. The TFR in these periods dropped from 5.02 to 2.65 globally, from 2.84 to 1.56 in the developed countries and from 6.17 to 2.90 in the developing countries. Both the birthrate and TFR in the developing countries have come close to the levels experienced by today's developed countries. According to the demographic analysis based on the population dynamics of developed countries, a country's birthrate does not start falling until its socioeconomic conditions mature. However, the birthrate and the rate of the natural population increase have in fact fallen already in the developing countries.

¹¹ These demographic statistics rely on the 2005 World Population Prospects, UN.

One analysis attributes the post-WW2 decline in the birthrate not only in the developing, but also in the developed countries, to cultural and ethnic factors rather than to economic growth.¹² This analysis concluded that the birthrate drop was brought about by wide acceptance of the concept that justifies population control, which is that birth control is not a betrayal of god and family planning is not immoral. In support of this conclusion is the biological approach to demographic issues. J. Bongaarts demonstrated the extent to which fertility (TFR) was lowered by birth restricting factors including postpartum sterility, contraception, abortion and singlehood.¹³ If it were not for these factors, each female would be able to have approximately 15 children, but the effect of postpartum sterility reduces the TFR to around 10. In developing countries, as it was in today's developed countries before their demographic transition, the breastfeeding period is long; the effect of postpartum sterility is strong under high birthrate conditions and reduces with a decline in the birthrate. Contraception has a limited effect on the population in developing countries, but it has an increasing effect with the progress of the demographic transition, accounting for approximately half of the decline in fertility in Phase 4. Coupled with abortion, contraception reduces the birthrate significantly. The impact of singlehood (unmarried, divorced, widowed) also rises with the progress of the demographic transition. As a result of all these effects, a woman who can potentially have 15 children during her lifetime gives birth on average to over 6.0 children (TFR) in Phase 1 of the demographic transition (the difference from potential fertility being accounted for by postpartum sterility, singlehood, and contraception in descending order, *sic passim*), 4.5-5.9 in Phase 2 (singlehood, contraception, postpartum sterility), 3.0-4.4 in Phase 3 (singlehood, contraception, postpartum sterility) and less than 3.0 in Phase 4 (contraception, singlehood, abortion, postpartum sterility). It would be fair to consider that the decline in the TFR in developing countries from the level in Phase 1 to that in Phase 4, as contemplated by Bongaarts, is attributable to these biological constraints to a large degree.

Along with the biological constraints, a major factor contributing to the birthrate decline in developing countries was the introduction of family planning. W. P. Mauldin and his research group analyzed the issue of birthrate decline in developing countries from the viewpoints of socioeconomic indexes and the family planning policy measures of their governments.¹⁴ He used essentially the same socioeconomic indexes that were used in prior studies, and he developed an overall family planning index derived from the efficiency of family planning agencies, market diffusion of contraceptive medication and devices, the size of the government budget, etc. Based on a regression analysis of the socioeconomic indexes and the overall family planning index against the birthrate decline, he came to the following conclusions: (i) the birthrate decline is greater in countries that have achieved greater socioeconomic progress, if the overall family planning index is comparable; (ii) the birthrate decline is greater in countries that have a greater overall family planning index, if the degree of socioeconomic progress is comparable; but (iii) countries with high socioeconomic indexes generally have high overall family planning indexes; and therefore (iv) the introduction of family planning reduces the birthrate regardless of socioeconomic progress, but it produces significantly enhanced effects if it is accompanied by socioeconomic progress.

Urbanization (the ratio of the urban population to the total population) is representative of the overall influence of socioeconomic factors and the effect of contraception and other family planning measures. The development of modern industrial sectors replacing the traditional agricultural sector brought about a rise in per capita production, which in turn promoted socioeconomic progress and the advancement of women in the society. Given their nature of functioning more economically through integration, the modern industrial sectors contributed to the expansion of cities in post-industrial revolution Europe. In other words, the expansion of the cities was a reflection of modernization; the building of a new society liberated people from traditional conventions and changed their ideas about childbearing. According to some estimates,

¹² Mauldin et al. (1978)

¹³ Bongaarts et al. (1990)

¹⁴ Mauldin et al. (1978)

approximately 2.4% of the world population around the year 1800 lived in cities, and cities with a population of 100,000 residents or more accounted for a mere 1.7%. Confined to Europe alone, the proportion of the urban population was 3.4% in 1800. The proportion of cities with 100,000 residents or more throughout the world is estimated to have reached 5.5% in 1900. The urban population in Europe was then 14.6%, and it is fair to say that 19th century urbanization took place first in Europe. The pace of urbanization gained speed in the 19th century, reaching 54.0% in the developed countries in 1950. Urbanization in the 20th century involved developing countries as well; the urbanization rate in developing countries that was estimated to have been 2.0% in 1900 reached 17.0% in 1950, and urbanization has been continuing further on a global scale. This rapid expansion of cities is contributing to the decline in the birthrate. In comparison to the experience of the developed countries, urbanization in developing countries has proceeded at a much faster rate, and the creation of urban employment opportunities has not kept pace in many countries. A case in point is the emergence of slums. The spreading of city slums is a consequence of increases in the urban population, and these increases, therefore, cannot always be described as an indicator of prosperity and progress. However, people living in slum conditions are also affected by urban lifestyles. The cost of living in cities is higher than in the countryside, making it difficult for city dwellers to have many children. Contraception is practiced more widely, due to the ready availability of information and contraceptive devices in cities. In summary, the progress of urbanization in developing countries brought about changes in the traditional social structure and in social and individual ideas about childbearing.

Other reasons for the birthrate decline in developing countries that did not experience rapid economic progress include a decline in infant mortality and the prolongation of life expectancy at birth. Infant mortality in the developing countries is estimated to have fallen from 79.8‰ in 1950-1955 to 62.4‰ in 2000-2005, and is estimated to fall to 26.8‰ in 2045-2050. The corresponding figures for the developed countries are 59.1‰, 7.7‰, and 4.4‰, respectively. Though not quite at the same level as in the developed countries, children born in the developing countries now have a much better chance of survival, and the need to give birth to many children has diminished. The estimated life expectancies at birth in the developing countries are 40.9, 62.8, and 73.6 years, respectively, for the same three time periods. Thus at least one of the motives for having many children is certainly disappearing. However, the demographic transition bringing about a decline in the birthrate and the extension of life expectancy in developing countries ushers in the problem of the demographic structure of an aging population with a declining birthrate that is now being faced by the developed countries. It is therefore critically important that the growth in the population be utilized wisely to achieve economic growth and accumulate economic wealth that is going to be needed to address this problem.

2-4 Population and Economic Growth

2-4-1 Evolution of the economic growth rate

In the post-WW2 era, many intellectuals in developed countries believed that the growth trajectory of the developing countries would be the same as that of the developed countries, and the demographic transition would proceed in the same manner. For instance, the 1951 UN population estimate projected the average annual population growth of Asia and Africa in 1950-1980 to be 0.7-1.3%. In reality however, both regions as well as other developing regions saw their populations increase at more than double the projected rate, reaching the huge sizes mentioned earlier in this paper. According to a World Bank report, the world's average per capita GNP in 1996 was US\$5,130. The low-income countries (1996 per capita GNP of less than US\$785, according to the World Bank's definition) that accounted for 56.2% of the global population had an average per capita GNP of US\$490, the middle-income countries (per capita GNP US\$785-9,636) accounting for 27.8% of the global population had US\$1,190, and the high-income countries (per capita

GNP US\$9,636 or more) accounting for only 16.0% had US\$25,870 per capita. A total of 148 countries (including economies, *sic passim*) were listed in the report, of which 25 were in the high-income country category. Only six of them, namely, Portugal, Spain, Greece, Korea, Hong Kong and Singapore, were former low or middle-income countries, which were thus then considered to be developing countries. [Taiwan would have come under this category, but was not included in the report for political reasons in connection with China]. The obvious divide nonetheless does not mean that the economic growth rate in developing countries was low; they were in fact growing faster than the developed countries. The annual average GNP growth rates were 4.4% in 1960-1970, 4.6% in 1970-1980, 6.0% in 1980-1990 and 6.8% in 1990-1995 in the low-income countries (as defined by per capita GNP for each period; the number of countries are not necessarily the same), the corresponding figures for the middle-income countries were 5.9%, 5.6%, 1.9% and 0.1%, respectively, and those for the high-income countries were 5.2%, 3.2%, 3.2% and 2.0%. With the exception of the 1960s, the growth rates of low-income countries were higher than those of the high-income countries. Furthermore, the growth rates were higher than those that had been experienced by the developed countries during the period of their high economic growth. The still low level of per capita GNP in developing countries is a result of the absorption of the increased GNP by the increased population. It is therefore not difficult to understand the extraordinary nature of this population increase in the developing countries.

The low-income countries that account for over 50% of the world's population still have low per capita incomes, but their GNP grew by as much as an average 5.3% annually between 1965 and 1996, while their populations grew by 2.0% per year. Other factors excluded, their per capita GNP grew by 3.3% annually during that period, and it is fair to say that they have succeeded in making a departure from the low-level equilibrium that was caused by the pressure of the increase in the population on economic development. When today's developed countries moved out of Phase 2 of the demographic transition to Phase 3 between 1870 and 1913, their average annual GNP growth rates were 4.3% in the US, the highest country (2.2% on a per capita basis), 2.0% in the UK (1.0%), and 3.0% (2.0%) in Sweden, a country that experienced the demographic transition ahead of others.¹⁵ Between 1965 and 1996, the middle-income countries recorded a yearly GNP growth of 3.3%, a population increase of 1.8% and a per capita GNP growth of 1.5%, whereas the high-income countries showed rates of 3.0%, 0.8% and 2.2%, respectively. For a period of 30 years, the low-income countries achieved higher growth rates than the developed countries had previously. However, the rate of population increase was also higher than the rate that the developed countries experienced. Had the population growth been at lower rates, the per capita GNP would have reached a much higher level, due to the economic growth achieved over the 30-year period.

2-4-2 Low level of per capita growth

While there is no denying that the long duration of the period of population increases worked against economic growth, the negative impact of the increase in the population should not be overemphasized. In East Asia, the population increase brought about positive effects on growth through an increase in the productive population: a benefit of the demographic dividend. Another reason for the still low level of per capita GNP is the very low level of income at the initial stage of economic development. According to Kuznets' analysis of the economic takeoff of developed countries, the per capita GNP of the UK at the time of its takeoff in 1765-1785 was US\$227 and the corresponding figures for all the other developed countries with the exception of Japan were in the range of US\$200 to 800.¹⁶ In contrast, the per capita GNP of the developing countries in 1954 was US\$85 on average, and this figure would be much smaller if we exclude those Latin American countries that had gained political independence in the 1930s and were already on the path of economic development as well as a number of oil-producing countries that were enjoying relatively

¹⁵ Mitchell (1975)

¹⁶ Kuznets (1959)

large incomes. Thus, many developing countries started their growth process from a very low income level and have barely achieved the present day per capita GNP level over the 30-year period. According to Kuznets, Japan's per capita GNP at the time of its economic takeoff was US\$74, a level lower than the average for developed countries and similar to the corresponding figure for today's developing countries.

However, Japan as well as other developed countries have attained their economic affluence over a long period of 100 to 150 years and have reached their present day status with sustained growth rates of 1-2% each year. Thus, another reason for the low level of per capita GNP in the developing countries is that their period of economic growth is still too short. If developing countries can keep up with the present pace of growth in the future, they will attain developed country status in a shorter period of time than it took for today's developed countries. Needless to say, this estimate is conditional on possible constraints that the population increase will pose in terms of resources availability and environmental impacts. Conversely, it is necessary to lower the rate of population growth if developing countries want to slow down their GNP growth rate in order to alleviate the impact of possible resources problems and the like and maintain their per capita GNP growth rates at high levels. For example, 26 low- and middle-income countries had negative growth in per capita GNP during 1965-1996 since their rate of population increase exceeded that of their rate of growth in GNP. Out of these 26 countries, 17 had annual population increase rates of between 2.0% and 3.0%, and seven had rates over 3.0%. As far as the average rate is concerned, the developing countries have managed to depart from the trap of a low level equilibrium, but some countries do continue to suffer from a constraint on their progress due to the increase in population.. An even greater emphasis should be placed on economic growth in the developing countries, given the prospect of continued population increases (though at a reduced level) and the arrival of the era of population aging with a declining birthrate.

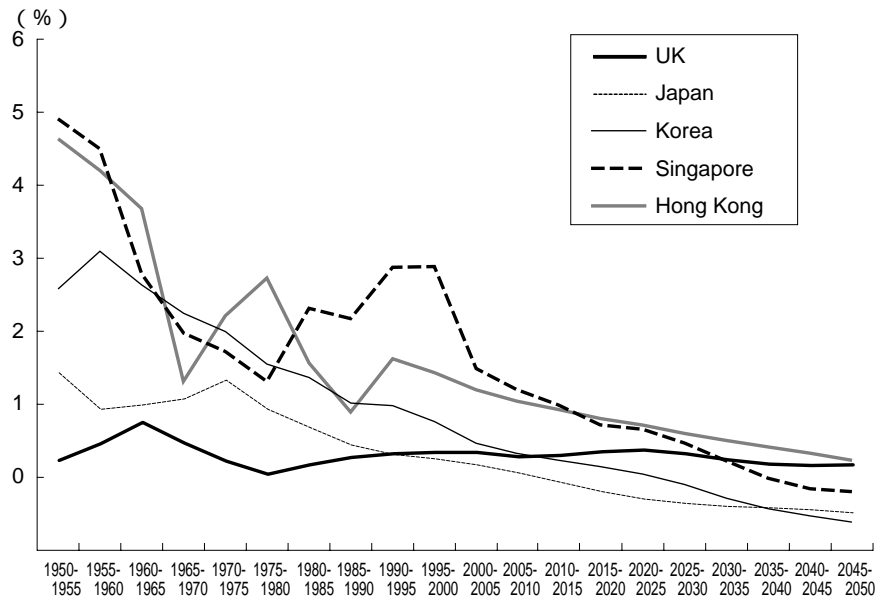
2-5 Population Dynamics of Selected Countries

2-5-1 Cases of developed countries

This section analyzes population dynamics and the relationship between economic growth and population, using the UK, Japan, Korea, Hong Kong, Singapore, Thailand, China, the Philippines, India, Brazil, Mexico, Egypt and Kenya as case countries. For this analysis, actual statistical data for 1950 to 2005 and estimates for 2010 to 2050 are used. The UN population estimate presents three scenarios: high, medium and low variants. Unless otherwise specified, the estimates quoted in this section represent the moderate growth scenario: the median variant. The statistical data will be at five-year intervals. For the purpose of the analysis, the UK, which led the developed countries in undergoing changes in population dynamics, is used as the reference base.

Firstly, let us examine the evolution of the population and the rate of increase in the population (which means the rate of the natural increase as determined by the difference between the birthrate and mortality, and adding or subtracting the number of population moved as a result of social factors). The population of the UK (statistics prior to 1955 representing only England and Wales and those after 1995 representing the entire United Kingdom) grew from 10.5 million in 1801 to 37 million a century later in 1901 and then to 58.67 million in the year 2000. It is projected to increase by approximately 10 million to a total of 67.14 million in 2050. As these numbers represent, the rate of increase has gradually come down. As Fig. 2-3 shows, the rate of population increase that was above 1% during the 19th century decreased to below 1% in the 20th century and went down further to 0.23% in the 1950-1955 period. Following this, there was a slight recovery to 0.34% in 2000-2005. Although there are some ups and downs in the projected periods, no significant rise is expected overall, reaching 0.17% in the 2045-2050 period. The rate of increase in the UK population has stayed at slightly above or below 1% per year for quite a long time. No negative growth is expected for the projected future either. This is in stark contrast to the picture of the Japanese population.

Figure 2-3 Rate of increase in the population - 1 (actual and projected)



Source: UN World Population Prospects

Japan is expected to experience a decline in its population. Japan's long-term demographic transition presents characteristics that contrast sharply the pre-World War II and post- World War II period. The mortality rate fell from the level of 20‰ in the 1920s, reaching 15.8‰ in 1941. In 1946, the year immediately following the end of World War II, it was nearly at the same level as the pre-WW2 era, but it dropped quickly to approximately 10.0‰ in 1950. This means that, nearly the same rate of decline in mortality that was realized over a period of 20 years before the war as was attained over a period of no longer than five years after the war. The first reason for this was the prolonged periods of successive conflicts before the war that did not allow the mortality rate to fall. Secondly, modern medical and hygiene techniques were introduced to Japan after the war, and, for example, medical treatment for tuberculosis that had afflicted many Japanese before the war became widely available. Thus, Japan's mortality marked a sharp drop from the pre-war level and initiated the post-war trend. Between the periods before and after WW2, Japan's socioeconomic situation changed drastically, almost representing a discontinuity. This unique characteristic of the situation in Japan is strongly reflected in the evolution of the birthrate. The birthrate fell from the peak of 36.0‰ in 1920 to 27.0‰ by the 1930s. But it went up again to 31.6‰ in 1941 as a result of policy measures to increase the population for military purposes, and the demographic transition from Phase 2 to 3 had to wait for the war to end. A baby boom occurred immediately after the end of the war, raising the birthrate in 1947-1949 to 33-34‰. The birthrate however dropped suddenly in the 1950s, from 28.1‰ in 1950 to 17.2‰ in 1957. In a very short period of time following the war, Japan completed the demographic transition from Phase 2 to 3 and then all the way to Phase 4. The rate of population increase that was 1.58% in 1941 began to fall in the 1950s, and already in 1956 the TFR crossed the threshold level of 2.1, which is the rate considered necessary to keep the population stable. The birthrate decline during the postwar era was attributable to the increased availability of contraceptive drugs due to the 1948 revision of the Pharmaceutical Affairs Law and the legalization of abortion for financial reasons due to the 1948 implementation and the 1949 revision of the Eugenic Protection Law.¹⁷ The socioeconomic changes that were brought about by the high rate of economic growth in and after the 1950s were indeed a major factor affecting Japan's birthrate, but its rapid rise followed by the drastic decline in the postwar era was unequivocally attributable to contraception and abortion. It can be said that the social value system of

¹⁷ Obuchi and Morioka (1981)

prewar Japan underwent a drastic transformation after the war, and allowed for the rapid diffusion of the artificial means to restrict fertility. It took Japan some 30 years to reach the demographic transition phase of low-fertility/low-mortality, counting from the prewar 1920s. This was about half the time that the UK took (60 years). Although arguments remain as to the correctness of looking at the postwar era alone, it may even be possible to conclude that the low-fertility/low-mortality Phase 4 was reached in only ten years in Japan. At any rate, Japan was the first non-Western country to achieve the demographic transition and it did so in a shorter time than in Western countries, thus confirming Mackenroth's law of accelerated phase change. Japan's rate of population increase was at the low level of 0.17% in the 2000-2005 period, and is projected to become negative in and after 2010-2015, hitting minus 0.49% in 2045-2050. According to this projection, Japan's total population will decline from 128.45 million in 2010 to 112.19 million in 2050.

2-5-2 Cases of the NIEs

Korea is another country for which a decline in the total population is expected. Korea's population increased from 20 million in the 1950s to 47 million today. In the early 1950s, there was an increase of over 2 million for social reasons including migration from the North Korea caused by the division of the peninsula and the return of Korean nationals from Japan following South Korea's independence. The total population then increased due to the natural increase in the population, becoming 2.5 times larger over some 40 years. The rate of the natural population increase turned positive due to a decline in mortality and an increase in the birthrate. The mortality rate was over 30‰ in the early 1950s reflecting the Korean War and the socioeconomic instability that ensued. However, when the peninsula was divided and stability was somewhat restored in the mid-1950s, mortality began to drop quickly, declining to single digit figures in the early 1970s. Mortality in 1995 was 5.1‰, a level lower than the average of the high-income countries according to the World Bank's definition (9‰ in 1980 and 9‰ in 1996) or that of Japan (7.4‰ in 1995). The birthrate, which had been at the level of over 35‰, went up further to 42‰ in the early 1950s, a level which, combined with the high mortality rate, presented the typical situation of a developing country. After this peak, however, the birthrate dropped rapidly, reaching less than 30‰ in the early 1970s, below 20‰ in the late 1980s, and 10.3% in 2005. The rate of increase in the population once came close to 3.0% in the mid-1950s, but it fell quickly to below 2.0% in the 1970s, and to 1.0% in the 1990s. In this way, Korea rushed through the four phases of demographic transition rapidly after the 1950s. The rate of population increase, which was 0.44% in 2000-2005 is projected to turn negative in 2025-2030, reaching minus 0.65% in the 2045-2050 period. In absolute numbers, the projected population of 49.45 million in 2025 will drop to 44.62 million in 2050.

In Hong Kong during the period 1950-1955, the mortality rate was already a single digit figure at 8.9‰, while the birthrate was 37.7‰. The rate of the natural population increase was 2.88%, and with a further increase of 1.76% due to an influx of people, the rate of the population increase was at a high level of 4.64%. The birthrate fell to 19.5‰ in 1965-1970, and to 8.3‰ in 2000-2005, while the rate of the natural population increase also fell to single digit figures in and after the 1980s. The influx of people kept the rate of the population increase at a level of over 2% until 1980, and has maintained a level of 1% ever since. The population continued to increase from 1.97 million in 1950 to 7.04 million in 2005. The rate of the natural population increase is expected to continue falling from 3.0% in 2000-2005, becoming negative in and after 2020-2025. The overall rate of the population increase, including social migration, is also projected to decline from 1.04% in 2005-2010 to 0.24% in 2045-2050, but no negative figure is anticipated. The expected influx is from China.

Singapore's population statistics provide no data for the rate of the population increase for the period 1900-1940. The birthrate was exceeded by the mortality rate from 1900 to 1920, recording a negative rate for the natural population increase. Malaysia similarly recorded a negative rate for its population increase during the period, though the country is not included in the scope of this study. The negative growth reflects

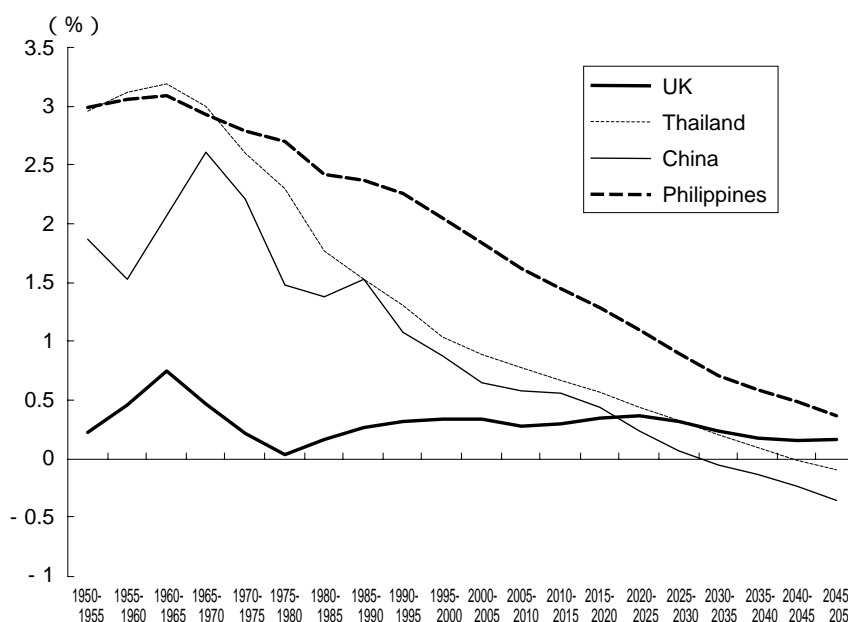
the harsh climatic conditions of the tropical region. The birthrate of Singapore, which was 25.5‰ in 1900, jumped to 45.0‰ in 1940, and stayed almost flat at 44.4‰ in the 1950-1955 period. Two decades later, in 1970-1975, it had dropped to half the previous level at 21.2‰, and has gone down further to 10.1‰ in 2000-2005. The mortality rate was very high at 40.0‰ in 1900 and remained above 20‰ during the prewar era. It came down to 10.6‰ in 1950-1955 and stayed at single digit figures thereafter, marking a rate as low as 4.9‰ in 2005. The rate of the population increase, which remained high at 4.9% in 1950-1955 and at 4.48% in 1955-1960, declined to 1.48% in 2000-2005. A rate of increase in the population of no more than 1% is projected up to 2030-2035, after which it is expected to become negative. The population is projected to increase from 4.32 million in 2005 to 5.32 million in 2035, and then start decreasing to 5.21 million in 2050.

2-5-3 Cases of Southeast Asia and China

The population of Thailand grew from slightly below 20 million in 1959 to 64.23 million in 2005. While this tripling of the population in such a short period is spectacular, the rate of increase has come down considerably in recent years. The mortality rate came down to single digit figures in the early 1950s and has stayed low until today. The birthrate was in the range of 20-30‰ during the 1950s, and reached a peak of close to 40‰ in the mid-1960s. Since then it fell from the level of 30‰ to the level of 20‰ by the mid-1970s and subsequently to the level of 10‰ by the mid-1980s. The rate of the population increase hit its peak of 3.19% in the mid-1960s, and has fallen to the level of 1% in the 1990s and 0.89% in 2000-2005 according to the UN population estimate. Accordingly, Thailand is considered to have entered the low-birthrate/low-mortality Phase 4 of the demographic transition in the 1990s, joining Japan and the NIEs in the East Asian group of countries that have reached the final phase of the demographic transition. Thailand is expected to see its population decline in 2040-2045 with a population increase rate in the negative figure.

China's population has grown from 541 million in 1949 when Socialist China was born, to 582 million in the first census (1953), 694 million in the second census (1964), 1.01 billion in the third census (1982), 1.13 billion in the fourth census (1990) and 1.31 billion in 2005. Despite the enormous size of its population, China had a per capita income of US\$750 in 1996. If China's demographic transition were left to socioeconomic changes alone, the population size in the final phase would be exorbitant. However, the

Figure 2-4 Rate of increase in the population - 2 (actual and projected)



Source: UN World population Prospects

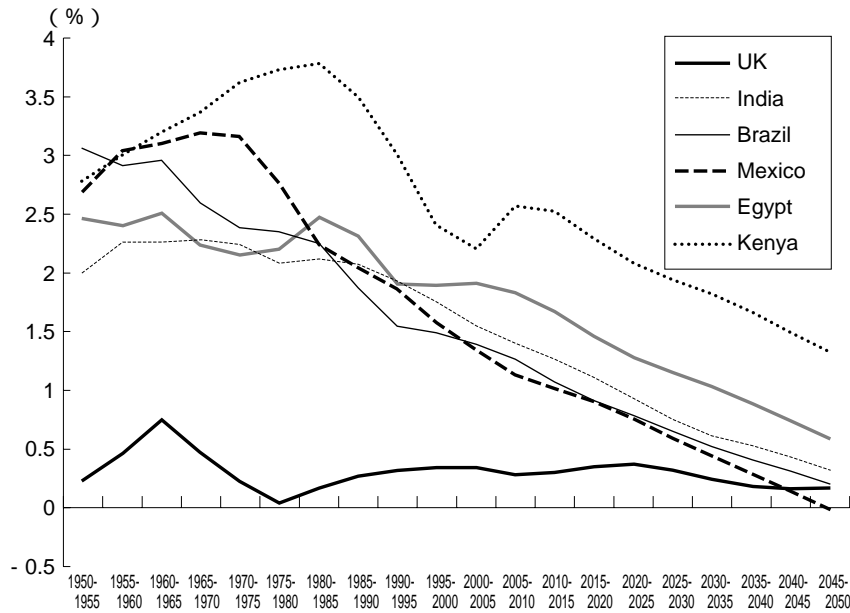
amount of arable land has reached to its limits; the central issue in China's population problem is thus how the population increase can be harnessed. The mortality rate fell to below 10‰ in the mid-1960s, and has stayed at the level of 7‰ in recent years. The birthrate has been undergoing major fluctuations. The 1950-1957 period was one of expansion with the birthrate exceeding 30‰ and the rate of increase in the population staying above 2.0%. This was immediately after the birth of Socialist China; population growth was regarded as a source of economic progress and childbirth was encouraged by various policy measures such as the payment of special allowances for children and a prohibition on artificial abortion. In addition, the 1950 enactment of the Marriage Law created a boom of marriages and contributed to an increase in the birthrate. However, the birthrate dropped significantly in 1958-1961, turning the 1960 population growth rate into a negative figure. In that year, the mortality rate was unusually high, supposedly due to a massive famine caused by the failure of the Great Leap Forward policy and the severe drought that adversely affected agricultural production. In reaction to this, the birthrate rose again in 1962-1971, and the rate of the population increase stayed high at around 2.5-2.8%, marking the return of a period of growth in the population. In 1972, however, it made a turnaround, and especially after the 1980 implementation of the One-Child Policy, both the birthrate and the rate of increase in the population declined gradually, the latter reaching the level of 1.0%. The rate of the population increase crossed the 1% line in the late 1990s, and China is on its way toward the final phase of the demographic transition in which both the birthrate and mortality rate balance each other out at low levels. Negative growth of the population is projected in and after 2030-2035 with an estimated population of 1.44 billion in 2035 declining to 1.39 billion in 2050.

The population of the Philippines increased by a factor of 3.4 from 19.91 million in 1950 to 68.81 million in 1995, and it reached 83.05 million in 2005. The rate of the population increase stayed relatively high at a level of 3% until the early 1960s, and at a level of 2% until the year 2000. The population of the Philippines, once nearly equal to that of Korea and Thailand, has long outgrown them, becoming 1.74 times larger than that of the Republic of Korea and 1.29 times larger than that of Thailand. This large increase was due to its prolonged high birthrate. Mortality fell to slightly above 10‰ shortly after World War II. The mortality decline had already started in the 1930s, becoming single digit figures by the mid-1950s and remaining so to this date. The birthrate on the other hand was over 40‰ until the 1960s, at a level of 30‰ until the early 1990s and was still at the high level of 25.7‰ in 2005. As a result, the rate of increase in the population remained above 2.0% until as late as 1995-2000. This high rate of increase would be expected to lead to a doubling of the population in some 20 years. According to projections, the rate of increase in the population will stay at the level of 1% until 2025, falling to below 1% thereafter. The population is expected to exceed 100 million in 2020 and reach 127.06 million in 2050. The Philippines thus provides an exceptional case in East Asia.

2-5-4 Cases of South Asia, Latin America and Africa

India's population was found to be 238 million in 1901 according to a census, which thereafter was conducted at ten-year intervals, and it reached 318 million before World War II in 1941. In other words, the population increased 1.3 fold, or at the average annual rate of 0.7% over these four decades. During the following four decades from 1941, it increased 2.2 fold to 685 million, representing an average annual increase of 1.9%. The population in 2005 was 1.103 billion, 3.1 times as large as the postwar era population of 357 million in 1950. As a major country of the world with a history of progress over centuries, India's population has been sizable for a long time. Before WW2, nonetheless, its rate of increase was more or less 1%. However, it began to increase rapidly after the war, following the general trend among developing countries. Mortality peaked at 32.3‰ in 1911, according to a prewar census. It kept declining thereafter, reaching 21.8‰ by 1941. It has come down further since the war, with single digit figures by the 1990s. The birthrate in 1950 was nearly 40‰, which reflected the gradual decline from the level of the prewar period, represented by the figure of 49.2‰ in 1901. The birthrate continued falling after the war, but the

Figure 2-5 Rate of population increase - 3 (actual and projected)



Source: UN World Population Prospects

pace was very slow as indicated by the 2000-2005 birthrate of 24.6‰. Compared to China's 13.6‰ for the same period, India's birthrate has not yet slowed down. The rate of population increase stayed in the single digit figures in the 1910s, at the level of 1.0% during the 1920s, and at the level of 2.0% during the 1960s. It remained there until 1990-1995 when it came down to 1.93%. In 2000-2005, it was still as high as 1.55%. India's population is projected to continue increasing at the rate of between 1 and 2 % until 2020, after which the rate is expected to fall to below 1%. The estimated population for 2050 is 1.5927 billion, the largest of any nation in the world. In other words, an increment of approximately 400 million is projected for the coming 45 years.

Brazil had a population of 7.67 million in 1854, which grew rapidly to 17.48 million in 1990 due to the inflow of immigrants, and then to 53.97 million in 1950. It hit the 100 million mark in 1970, and kept increasing to 186.4 million by 2005. The rate of population increase was above 3% until the 1950s, at 2% until the 1980s, and was still as high as 1.39% in the 2000-2005 period. In addition to immigration, a natural increase has been a major factor contributing to the rise in the rate of the population increase. Mortality, which was 15.4‰ in the 1950-1955 period, fell to single digit figures from the 1970s, and came as low as 6.6‰ in 2000-2005. The birthrate on the other hand stayed above 40‰ until the 1960s, at the level of 30‰ until 1985, and is still high at 20.7‰ in 2000-2005. Accordingly, the rate of the natural increase in the population in 2000-2005 was 1.27%, still above the 1.0% mark. It is projected that the birthrate will decline and the rate of the population increase will become less than 1%. The expected population in 2050 is 253.10 million, 1.36 times of that in 2005.

The population of Mexico increased from 6.38 million in 1831 to 13.60 million in 1900, to 27.73 million in 1950, and to 107.2 million in 2005. Unlike Brazil, Mexico had a modest population increase before the war. The considerable postwar increase was due to a natural increase. The mortality rate declined from 32.7‰ in 1900 to 17.0‰ in 1950-1955, and has come down to single digit levels since the 1970s, marking 4.5‰ in 2000-2005. The birthrate however rose from 34.0‰ in 1900, stayed above 40‰ since the 1940s until the 1970s, and is still as high as 21.7‰ in 2000-2005. The rate of the natural increase exceeded

2% until 1995, and is still high at 1.72% in 2000-2005. Birthrate is expected to fall in the years ahead, reaching 11.1% in 2045-2050 when the rate of natural increase will be 1.8%. The rate of the population increase will be below 1% and lower than the rate of the natural increase owing to the outflow of people. It is expected to become negative in 2045-2050. It is assumed that immigration to the US and Canada has been taken into consideration.

The population of Egypt, a North African country, has grown from 4.47 million in 1846 to 11.28 million in 1907, to 21.83 million in 1950 and to 74.03 million in 2005. Like Mexico, Egypt saw its population grow considerably after the war. Mortality was high in the prewar era, ranging between 20 and 30‰. It became 24.0‰ in 1950-1955, dropped to 18.3‰ in 1965-1970, to 9.6‰ in 1985-1990 and to as low as 6.0‰ in 2000-2005. The birthrate meanwhile stayed at the level of 40‰ until 1970, the level of 30‰ until 1990, and was still as high as 26.3‰ in 2000-2005. Consequently, the rate of the natural population increase remains at over 2% even today. The birthrate is projected to decline in the years ahead, but is expected to be still 13.8‰ in 2045-2050, at which time the rate of the natural increase is estimated to be 0.66%. The projected population for this period is 125.91 million, an increase of 1.7 times the level in 2005.

Kenya's population increased from 6.07 million in 1950 to 34.25 million in 2005, or by 5.6 times in 55 years. This is a typical example of the pattern of population dynamics observed in developing countries; the population increases significantly because only the mortality rate drops from the high-mortality/high-birthrate phase. In 1950-1955, the mortality rate for Kenya was 23.6‰ and the birthrate was 51.4‰. This birthrate is extremely high among the countries reviewed in this study. It could well be that the mortality rate was higher previously and that this high birthrate was required to maintain the population. From this situation, the mortality rate declined and the rate of the natural population increase over that period was 2.78%. The mortality rate went down further to hit a low point of 10.2‰ in 1985-1990. Then it went up again to 15.5‰ in 2000-2005 on account of the impact of HIV and for other reasons. However, the decline in the birthrate is slow, staying at 38.8‰ even in 2000-2005. The rate of the natural increase in that period was therefore as high as 2.3%. The birthrate is projected to decline to 19.9‰ by 2045-2050, making the rate of the population increase 1.32% in this period. While this is still a high rate of increase in comparison with the population statistics of other countries, it represents a substantial decline in the historical evolution of Kenya's population.

In summary, the population dynamics of the countries reviewed in this report are characterized by a general decline in the rate of the population increase, with the possibility of future negative growth in East Asia. The projected population dynamics can be more clearly shown by looking at the evolution of the TFR.

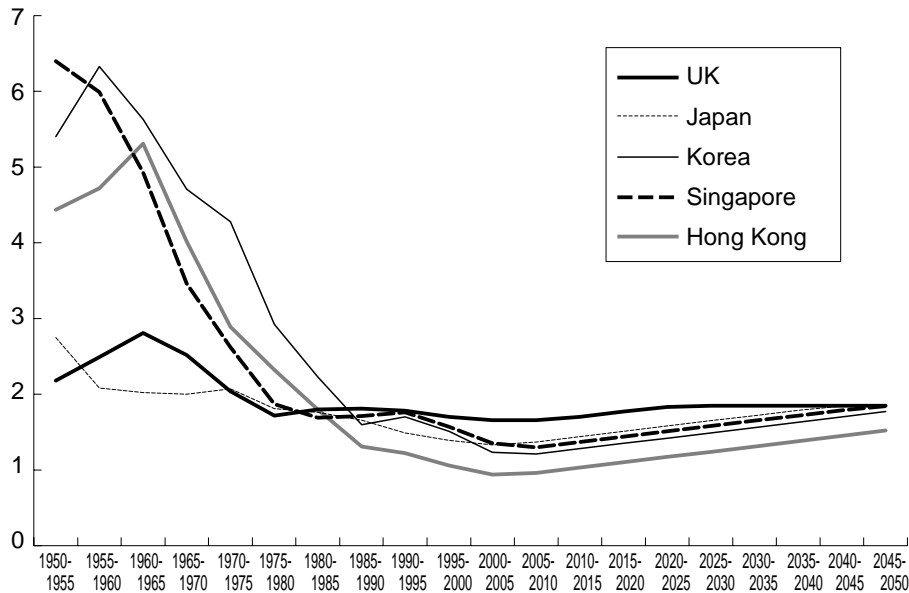
2-6 TFR and the Age-specific Birthrate

2-6-1 Rapid decline in the TFR

Fig. 2-6 shows the evolution of the TFR in selected countries. The TFR of the UK was already at low levels of between 2 and 3 in the 1950s. It dropped to 1.72 in 1975-1980, and recorded the lowest level of 1.66 in 2000-2005. It is projected to recover gradually, then stay at the level of 1.7 to 1.8. Japan, too, had a low TFR of 2.75 in 1950-1955, which declined to 1.81 in 1975-1980 and went further down to 1.33 in 2000-2005, undercutting the UK's lowest record (1.28 in 2004). Japan's TFR is projected to recover slowly, reaching 1.85 in 2045-2050. As Fig. 2-6 shows, the UN estimate anticipates a convergence of the TFR of the countries in question at around 2.

In contrast to the moderate changes in the TFR in the developed countries, those of the East Asian countries show rather volatile ups and downs. The Korean TFR was as high as 6.33 in 1955-1960. Fifteen years later in 1970-1975, it dropped by 2 points to 4.28, and a decade later in 1980-1985 it made another 2-

Figure 2-6 Total fertility rate - 1 (actual and projected)



Source: UN World Population Prospects

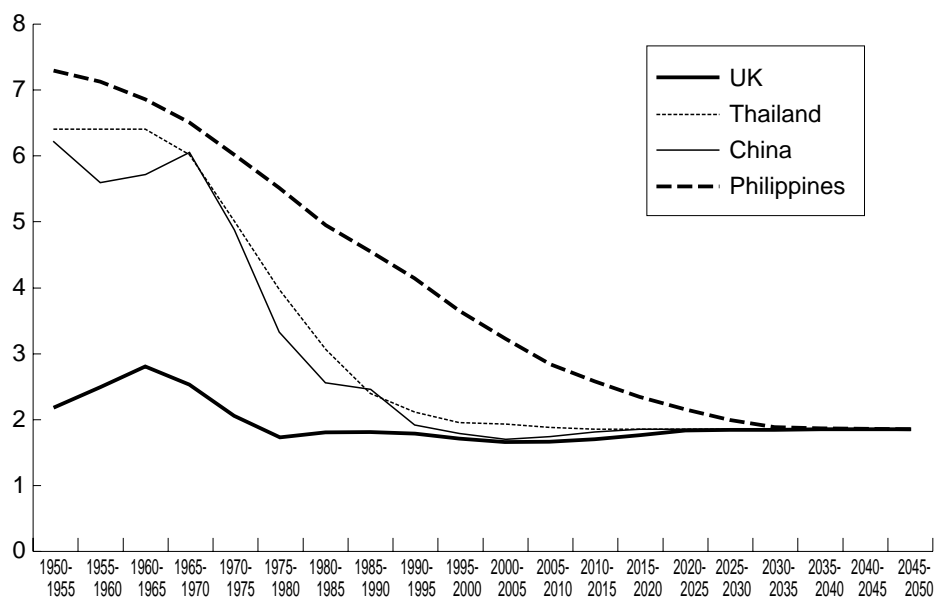
point drop, and has finally come down to 1.23 in 2000-2005, below Japan's TFR. During the latter half of the 20th century, Korea went through the stages of a developing country and then a developed country in terms of the TFR, going even further below the level of Western Europe or Japan. Korea has undergone more dramatic changes in its population dynamics than Japan, a country that replicated the experiences of Western developed countries over a shorter period of time. As will be discussed in detail later in this report, the problems of an aging population with a declining birthrate will arrive as a rather intense upheaval as all the problems that Japan faced present themselves in a compressed form. Korea's TFR is estimated by the UN to hit the low point of 1.21 in 2005-2010 and then recover to 1.77 by 2045-2050.

The TFR for Hong Kong has also changed drastically. From a figure of 4.44 in 1950-1955, it reached a peak of 5.31 in 1960-1965. Fifteen years later in 1975-1980, it declined approximately 3 points to 2.32, and then went down further to 0.94, meaning that on average each woman bears no more than one child in her entire life. Given the fact that there are families with two children or more, this low level of TFR means that the number of women who will never bear a child in their lifetime is increasing. The UN estimates that the TFR will recover to 1.52. Questions remain, however, as to what factors will motivate the people of Hong Kong to have more children in this materially affluent city state, especially among the young who are apparently placing their priority on individualistic values. The UN estimate could well prove to be too optimistic.

Singapore, also a city state like Hong Kong, has also seen its TFR change dramatically. It was as high as 6.40 in 1950-1955, but within a period of only 15 years it recorded a 3-point decline to 3.46 in 1965-1970, and added a further decline of 2 points to 1.35 by 2000-2005. Singapore's TFR is expected to hit a low point of 1.30 in 2005-2010 and slowly recover to 1.84 in 2045-2050.

Arguments could be made that the changes in the population dynamics of these countries seem very dramatic since the size of their population is small and the land area is relatively small. However, this East Asian pattern is replicated in China, which has an enormous population, an extensive land area, and wide ethnic diversity. Until the introduction of the One-Child Policy in 1980, China's population underwent severe fluctuations due to unstable policies; the TFR was 6.22 in 1950-1955, declined to 5.59 in 1955-1960, then increased to 5.72 in 1960-1965 and to 6.06 in 1965-1970. Mao Zedong, for example, raised an

Figure 2-7 Total fertility rate - 2 (actual and projected)



Source: UN World Population Prospects

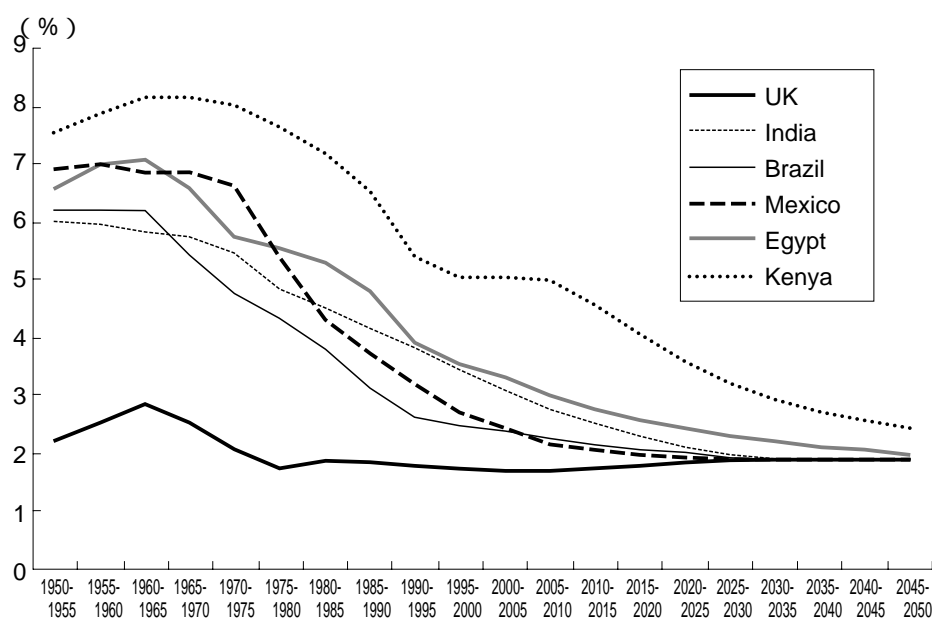
objection to the concept of population control by advocating “people’s capitalism” by which he insisted that people are capital and increases in capital (population) bring about increases in production. Caught between this philosophy and the reality of the population increase, policymakers in China encouraged family planning on the one hand and then discouraged it on the other. In later years, the government policy became more stable, and the TFR started to decline when the One-Child Policy was implemented: 3.32 in 1975-1980, 1.92 in 1990-1995, and 1.70 in 2000-2005. It is projected to stay at the level of 1.8 before going up to 1.85 in 2045-2050.

In comparison to the NIEs, which shifted to the phase of the developed countries through rapid economic growth, and China, which vigorously implemented the One-Child Policy, fertility trends in Southeast Asian countries may appear rather sluggish. However, Thailand is changing in a way that is close to the NIEs and China. The TFR of Thailand was 6.40 in 1950-1965, then started to come down to reach 3.05 over 15 years by 1980-1985, and has come down to as low as 1.93 in 2000-2005. It is projected to stay at about 1.85 in the years ahead.

2-6-2 More countries experiencing a decline in the TFR

In contrast to the pace of changes that took place in the UK and Japan, changes in the population dynamics of East Asian countries have proceeded at an unprecedented rate and intensity. Countries that are now considered to have a higher TFR than the East Asian countries have today are projected to head toward the developed country phase as well. The TFR of the Philippines was as high as 7.29 in 1950-1955, but it dropped by more than 2 points in the subsequent three decades to 4.95 in 1980-1985, then declined further to 3.22 by 2000-2005. While this latest figure is higher than the prevailing level in East Asia, it represents a drop of about 4 points in 50 years. None of today’s developed countries, it is believed, has seen their female population giving birth to an average of four children less within a period of half a century. Since the concept of the TFR is rather new, no historical data is available and so direct quantitative comparisons are not possible. Nonetheless, such a significant decline over so short a time period is only seen among today’s developing countries. The TFR of the Philippines is projected to decline further to reach 1.85 by 2045-2050.

Figure 2-8 Total fertility rate - 3 (actual and projected)



Source: UN World Population Prospects

The TFR of India, the only country that rivals China in the size of its population, has declined rather modestly compared to the East Asian countries. It dropped by slightly more than 2 points in four decades: from 5.97 in 1950-1955 to 5.43 two decades later in 1970-1975, and to 3.81 two more decades later in 1990-1995. It was 3.07 in 2000-2005, representing a drop of nearly 3 points over half a century. It is projected to decline gradually, reaching 1.85 by 2045-2050.

Turning to Latin America, Brazil saw its TFR decline slowly in the initial stage, followed by an accelerated drop. It was 6.15 in 1950-1965, 5.38 in 1965-1970, 4.31 in 1975-1980, 3.10 in 1985-1990, and 2.35 in 2000-2005. It is still higher than that of East Asia by 1 point. Brazil's TFR is expected to fall to 1.85, which is in the vicinity of the TFR convergence point of 2 for all countries.

Mexico had a TFR of 6.87 in 1950-1955, which was higher than that of Brazil, and this level was maintained more or less until the 1970s. A sharp decline began then, reaching 2.40 in 2000-2005. Projections indicate a moderate decline from now on, reaching 1.85 in 2045-2050.

The TFR of Egypt has evolved in a fairly unique way among the countries studied, as can be expected from the country's history of population changes. The TFR went up from 6.56 in 1950-1955 to the highest level of 7.07 in 1960-1965. Although declining since then, it remained at the level of 5.0 until 1985, and is still at a high rate of 3.29 even in 2000-2005. It is projected to go down to 1.94 in 2045-2050, but this is still higher than the TFR of East Asian countries in the 2000-2005 period.

Egypt is incomparable to Kenya in the range of its fluctuations in the TFR. Kenya's TFR was 7.51 in 1950-1955, which jumped to 8.12 in 1965-1970. This was above the level that was suggested by Bongaarts as we saw earlier in this paper. While it has come down since then, it is still estimated to be at a high level of 5.0 in the 2000-2005 period. It is projected to fall sharply in the first half of the 21st century, reaching 2.39 in 2045-2050. Even though this projected level is still far higher than the East Asian level today, it still represents a drastic drop in the demographic evolution of Kenya.

2-6-3 Age-specific birthrate

The decline in the rate of increase in the population is caused by a dramatic decline in the average number of children a woman gives birth to. This is more clearly indicated by the age-specific birthrate,

which is the ratio of the number of newborn babies compared to the total number of women of a given age. The number of women of childbearing age (15 years old through 49 years old) is counted in age bands of 5 years. Thus, the ratio of the number of newborn babies in relation to the total number of women in each particular age band is computed. If the number of babies is equal to the number of women, the ratio is 100%, which means that women in that age band bear one child on average. A ratio in excess of 100% means more than one baby, and below 100%, means less than one baby on average. This is in a sense the TFR according to the age group of the women giving birth. A previous work on the age-specific birthrate has indicated that countries with a high birthrate and a high TFR tend to exhibit a lower concentration of the number of childbearing women in certain age bands, which is to say that there is a rather even number of children born according to the age of each childbearing woman.¹⁸ In contrast, in countries with a low birthrate and a low TFR the women who bear children tend to be concentrated in certain age bands. Countries that are experiencing a rapid decline in the birthrate and the TFR have a greater drop in the birthrate throughout the age bands and a greater concentration of childbearing women in specific age bands. (Refer to Table 2-1 for the ensuing analysis.)

The age-specific birthrate statistics for the UK in 1995-2000 show the highest birthrate in the age band of 25-29, followed by bands 30-34 and 20-24 with all the other bands having considerably lower birthrates. The projected changes from the 1995-2000 to the 2045-2050 period include a decline to an almost zero birthrate in bands 15-19 and 45-49, a halving for band 20-24, and a slight increase for band 40-44, though still a single digit percentage. An increase is also projected for band 35-39, but only to nearly 70%. There will be concentrations of childbearing women in bands 25-29 and 30-34, and the peak will shift from the former age band to the latter. These two age bands at any rate represent the core of the childbearing age for women in UK. This distribution is typical of low birthrate countries. Another characteristic is the rise in the birthrate for the age bands of 35-39 and 40-44, indicating the trend towards childbirth at a later age. The changes projected for Japan are generally the same as for the UK. Childbearing will be concentrated in the age bands of 25-29 and 30-34, and the peak will shift from the former to the latter. An increase in the birthrate in bands 35-39 and 40-44 is also projected, indicating the trend towards childbearing at a later age.

Korea's age-specific birthrate picture in 1995-2000 is characterized by a considerably high peak of 150% in the age band of 25-29, followed by band 30-34. All the other age bands show lower birthrates. Projections for 2050 include: some decline in the birthrate in the two major age bands, a rise in band 20-24 at a new peak with a birthrate of 80%, which represents an increase of 2.5 times the present level, an almost 6-fold increase in band 15-19 to 15.9%, an approximate doubling of the birthrate in band 40-44 and a zero birthrate in band 45-49. Deconcentration of the childbearing age in two directions, towards the young and the middle-aged bands, is anticipated. It can be predicted that, as a macrotrend, this twin peak structure will shift to one of a triple peak. The anticipated increase in age-specific birthrates is reflected in the projected increase in the TFR.

Hong Kong is expected to see a further rise in the birthrate of its peak age band of 25-29 and the second peak band of 30-34. While these peaks will become higher, the birthrates will go up for all other age bands as well. Like Korea, Hong Kong is projected to experience a rise in its TFR due to an increase in the birthrate for all age bands.

In Singapore, the birthrate for the top birthrate age band of 25-29 and the second band of 30-34 are projected to rise, the latter taking over the top position in 2050. The birthrates for bands 35-39 and 40-44 are expected to rise, too, bringing the structure more in line with the pattern of developed countries characterized by a concentration of childbearing in certain age bands as well as late childbearing.

¹⁸ Obuchi and Morioka (1981)

Table 2-1 Age-specific birthrate

UK

(%)

	1995-2000	2000-2005	2005-2010	2010-2015	2015-2020	2020-2025	2025-2030	2030-2035	2035-2040	2040-2045	2045-2050
15-19	28.53	27.92	22.70	17.92	13.18	7.96	2.29	2.29	2.29	2.29	2.29
20-24	70.96	69.46	62.03	55.80	50.25	44.05	36.22	36.22	36.22	36.22	36.22
25-29	95.20	93.18	95.47	99.89	106.55	113.20	116.85	116.85	116.85	116.85	116.85
30-34	92.62	90.66	97.36	106.47	118.11	130.18	138.97	138.97	138.97	138.97	138.97
35-39	43.79	42.87	46.17	50.54	56.16	61.95	66.19	66.19	66.19	66.19	66.19
40-44	5.17	5.06	5.72	6.52	7.53	8.55	9.36	9.36	9.36	9.36	9.36
45-49	3.74	3.66	2.96	2.27	1.63	0.92	0.11	0.11	0.11	0.11	0.11

Japan

(%)

	1995-2000	2000-2005	2005-2010	2010-2015	2015-2020	2020-2025	2025-2030	2030-2035	2035-2040	2040-2045	2045-2050
15-19	4.48	3.86	3.51	3.23	2.87	2.50	2.05	2.13	2.22	2.28	2.29
20-24	39.73	36.02	35.05	34.68	34.10	33.31	32.31	33.68	35.05	36.03	36.22
25-29	106.75	99.11	99.00	100.77	102.26	103.36	104.21	108.64	113.06	116.21	116.85
30-34	94.52	92.01	96.42	103.05	109.84	116.79	123.95	129.21	134.47	138.22	138.97
35-39	29.11	31.15	35.48	40.84	46.57	52.65	59.04	61.54	64.05	65.84	66.19
40-44	3.31	3.75	4.47	5.36	6.28	7.30	8.35	8.70	9.06	9.31	9.36
45-49	0.11	0.11	0.08	0.09	0.09	0.10	0.10	0.10	0.11	0.11	0.11

Korea

(%)

	1995-2000	2000-2005	2005-2010	2010-2015	2015-2020	2020-2025	2025-2030	2030-2035	2035-2040	2040-2045	2045-2050
15-19	2.82	3.16	3.98	5.13	6.35	7.70	9.15	10.70	12.32	14.07	15.92
20-24	37.09	32.64	34.61	39.32	44.31	49.61	55.21	61.08	67.28	73.77	80.52
25-29	149.58	118.31	113.54	117.20	120.54	123.59	126.28	128.66	130.75	132.48	133.89
30-34	90.63	71.84	69.10	71.48	73.71	75.76	77.64	79.30	80.83	82.17	83.34
35-39	19.59	16.60	17.06	18.85	20.71	22.67	24.71	26.81	29.02	31.32	33.71
40-44	2.88	2.48	2.58	2.91	3.23	3.59	3.95	4.35	4.75	5.15	5.61
45-49	0.21	0.17	0.15	0.13	0.16	0.09	0.06	0.09	0.07	0.03	0.00

Hong Kong

(%)

	1995-2000	2000-2005	2005-2010	2010-2015	2015-2020	2020-2025	2025-2030	2030-2035	2035-2040	2040-2045	2045-2050
15-19	5.94	5.26	5.38	5.77	6.16	6.55	6.94	7.34	7.73	8.12	8.51
20-24	36.25	32.15	32.83	35.23	37.62	40.01	42.41	44.80	47.20	49.59	51.98
25-29	73.78	65.42	66.82	71.69	76.56	81.43	86.30	91.18	96.05	100.92	105.79
30-34	66.57	59.03	60.29	64.68	69.08	73.48	77.87	82.27	86.66	91.06	95.46
35-39	25.44	22.56	23.04	24.72	26.40	28.08	29.76	31.44	33.12	34.80	36.48
40-44	3.82	3.38	3.46	3.71	3.96	4.21	4.46	4.72	4.97	5.22	5.47
45-49	0.21	0.19	0.19	0.21	0.22	0.23	0.25	0.26	0.28	0.29	0.30

Singapore

(%)

	1995-2000	2000-2005	2005-2010	2010-2015	2015-2020	2020-2025	2025-2030	2030-2035	2035-2040	2040-2045	2045-2050
15-19	7.44	5.62	4.65	4.11	3.46	2.75	1.96	2.05	2.13	2.22	2.28
20-24	41.69	34.26	31.49	31.59	31.57	31.29	30.97	32.34	33.71	35.08	36.06
25-29	113.58	95.61	90.06	92.83	95.36	97.70	99.79	104.21	108.64	113.06	116.21
30-34	103.47	91.04	89.67	96.59	103.74	111.11	118.66	123.92	129.17	134.43	138.18
35-39	41.00	37.42	38.14	42.39	46.89	51.61	56.53	59.04	61.54	64.05	65.84
40-44	6.81	6.02	5.95	6.44	6.94	7.46	8.00	8.35	8.70	9.06	9.31
45-49	0.00	0.03	0.03	0.06	0.06	0.09	0.10	0.10	0.10	0.11	0.11

Thailand

(%)

	1995-2000	2000-2005	2005-2010	2010-2015	2015-2020	2020-2025	2025-2030	2030-2035	2035-2040	2040-2045	2045-2050
15-19	50.31	48.86	46.39	45.10	44.25	43.36	42.48	41.63	40.74	39.89	39.00
20-24	122.77	123.43	121.44	122.36	124.28	126.24	128.21	130.17	132.13	134.09	136.05
25-29	103.35	103.19	100.80	100.86	101.82	102.75	103.71	104.64	105.56	106.52	107.45
30-34	65.48	64.70	62.55	61.94	61.90	61.83	61.75	61.72	61.64	61.57	61.53
35-39	33.62	32.04	30.04	28.82	27.79	26.75	25.75	24.72	23.72	22.64	21.65
40-44	11.47	10.68	9.67	8.92	8.25	7.62	6.96	6.29	5.66	5.00	4.33
45-49	3.00	2.70	2.31	2.00	1.70	1.44	1.15	0.85	0.56	0.30	0.00

China

(%)

	1995-2000	2000-2005	2005-2010	2010-2015	2015-2020	2020-2025	2025-2030	2030-2035	2035-2040	2040-2045	2045-2050
15-19	4.98	4.76	4.87	5.07	5.18	5.18	5.18	5.18	5.18	5.18	5.18
20-24	154.15	147.22	150.68	156.75	160.21	160.21	160.21	160.21	160.21	160.21	160.21
25-29	137.77	131.58	134.68	140.09	143.19	143.19	143.19	143.19	143.19	143.19	143.19
30-34	44.86	42.84	43.85	45.61	46.62	46.62	46.62	46.62	46.62	46.62	46.62
35-39	9.26	8.84	9.05	9.41	9.62	9.62	9.62	9.62	9.62	9.62	9.62
40-44	3.56	3.40	3.48	3.62	3.70	3.70	3.70	3.70	3.70	3.70	3.70
45-49	1.42	1.36	1.39	1.45	1.48	1.48	1.48	1.48	1.48	1.48	1.48

Philippines

(%)

	1995-2000	2000-2005	2005-2010	2010-2015	2015-2020	2020-2025	2025-2030	2030-2035	2035-2040	2040-2045	2045-2050
15-19	44.37	38.55	33.00	28.93	25.75	22.89	20.56	18.61	17.91	17.28	16.69
20-24	172.17	152.32	133.47	120.30	109.37	100.11	92.16	86.13	85.06	84.73	84.40
25-29	204.66	187.39	170.38	159.24	149.92	142.01	135.14	130.48	133.05	136.72	140.34
30-34	152.35	136.01	121.22	111.12	102.68	95.55	89.42	84.93	85.29	86.32	87.36
35-39	108.56	92.63	78.47	68.23	59.74	52.61	46.48	41.63	39.29	37.30	35.34
40-44	39.86	32.62	26.48	22.01	18.26	15.14	12.44	10.26	8.73	7.33	5.88
45-49	6.63	5.09	3.97	3.18	2.48	1.89	1.39	0.97	0.67	0.33	0.00

India

(%)

	1995-2000	2000-2005	2005-2010	2010-2015	2015-2020	2020-2025	2025-2030	2030-2035	2035-2040	2040-2045	2045-2050
15-19	95.47	79.87	62.88	50.54	40.73	33.70	28.05	24.83	24.42	24.42	24.42
20-24	215.66	202.14	196.92	190.15	183.50	175.64	167.53	163.06	162.80	162.43	162.06
25-29	181.32	163.43	150.04	138.11	127.67	118.78	111.04	105.99	106.19	106.56	106.93
30-34	107.14	95.23	84.40	76.06	69.10	63.18	58.05	54.85	54.76	54.76	54.76
35-39	52.88	45.47	37.51	31.53	27.00	23.59	20.65	18.90	18.87	18.87	18.87
40-44	25.41	20.89	14.89	11.01	7.78	5.48	3.90	2.97	2.96	2.96	2.96
45-49	8.93	7.37	4.96	3.00	1.83	0.84	0.39	0.00	0.00	0.00	0.00

Brazil

(%)

	1995-2000	2000-2005	2005-2010	2010-2015	2015-2020	2020-2025	2025-2030	2030-2035	2035-2040	2040-2045	2045-2050
15-19	89.70	89.60	89.30	88.70	88.00	87.20	86.30	85.50	85.40	85.40	85.40
20-24	141.00	136.60	132.20	127.60	123.40	119.60	116.20	113.20	112.80	112.80	112.80
25-29	121.90	115.60	109.70	103.80	98.70	94.30	90.40	87.20	86.70	86.70	86.70
30-34	77.00	71.90	67.10	62.60	58.80	55.50	52.70	50.40	49.90	49.90	49.90
35-39	42.50	39.10	36.00	33.20	30.80	28.80	27.10	25.70	25.50	25.50	25.50
40-44	14.90	13.50	12.30	11.10	10.20	9.40	8.80	8.30	8.20	8.20	8.20
45-49	3.00	2.70	2.40	2.10	1.90	1.70	1.60	1.50	1.50	1.50	1.50

Mexico

(%)

	1995-2000	2000-2005	2005-2010	2010-2015	2015-2020	2020-2025	2025-2030	2030-2035	2035-2040	2040-2045	2045-2050
15-19	78.70	70.20	62.90	59.50	57.40	55.50	54.40	54.40	54.40	54.40	54.40
20-24	141.00	129.40	118.80	113.50	110.10	107.10	105.40	105.40	105.40	105.40	105.40
25-29	145.20	131.00	118.40	112.40	108.60	105.20	103.30	103.20	103.20	103.20	103.20
30-34	100.20	87.60	77.20	72.30	69.30	66.70	65.20	65.20	65.20	65.20	65.20
35-39	58.30	48.90	41.60	38.30	36.40	34.70	33.80	33.80	33.80	33.80	33.80
40-44	13.50	10.70	8.70	7.90	7.40	7.00	6.70	6.70	6.70	6.70	6.70
45-49	3.00	2.30	1.80	1.50	1.40	1.30	1.30	1.30	1.30	1.30	1.30

Egypt

(%)

	1995-2000	2000-2005	2005-2010	2010-2015	2015-2020	2020-2025	2025-2030	2030-2035	2035-2040	2040-2045	2045-2050
15-19	54.24	46.44	37.71	31.49	26.96	23.55	20.91	18.76	17.01	15.56	14.30
20-24	195.90	187.93	177.49	168.43	160.71	154.03	148.22	143.12	138.56	134.48	130.73
25-29	208.54	200.37	188.84	178.89	170.57	163.46	157.12	151.65	146.73	142.38	138.34
30-34	145.48	133.99	119.40	108.30	99.74	92.95	87.41	82.76	78.77	75.32	72.28
35-39	72.60	64.40	54.92	48.01	42.83	38.88	35.73	33.16	30.96	29.14	27.51
40-44	24.93	21.12	16.67	13.60	11.40	9.72	8.44	7.39	6.58	5.88	5.29
45-49	4.52	3.55	2.57	1.87	1.39	1.02	0.78	0.57	0.38	0.24	0.16

Kenya

(%)

	1995-2000	2000-2005	2005-2010	2010-2015	2015-2020	2020-2025	2025-2030	2030-2035	2035-2040	2040-2045	2045-2050
15-19	99.50	97.10	93.82	83.70	72.41	62.63	54.61	48.34	43.32	39.28	35.85
20-24	246.40	254.70	260.94	246.38	225.94	206.68	191.01	178.85	169.87	162.99	157.74
25-29	231.80	240.60	247.45	234.49	215.60	197.93	183.35	172.17	163.96	157.72	152.96
30-34	180.00	177.00	172.57	155.23	135.61	118.37	104.33	93.27	84.58	77.54	71.70
35-39	137.40	131.70	125.07	109.39	92.67	78.34	66.65	57.43	50.05	43.89	38.72
40-44	62.20	59.40	56.04	48.75	41.09	34.51	29.17	24.93	21.47	18.65	16.25
45-49	42.70	39.50	35.90	29.87	23.89	18.94	14.88	11.62	8.95	6.74	4.78

Source: UN World Population Prospects

The birthrate structure of Thailand in 1995-2000 was characterized by a peak in the age band of 20-24, followed by the age bands 25-29, 30-34, 15-19, 35-39, 40-44, and 45-49 in descending order. The birthrates were relatively high for all age bands. The birthrate is projected to increase in the peak bands of 20-24 and 25-29, while a decline is likely for all other bands. This trend in fact indicates a shift toward the developed country pattern of the concentration of childbearing women in certain age groups, but there are no signs that this suggests a trend towards late childbirth, as has been observed in countries such as the UK and Japan.

A major characteristic of the age-specific birthrate in China, whose One-Child Policy has been vigorously implemented, is the high concentration of childbearing women in a few age bands. The peak age band of 20-24 has a birthrate of over 150%, which is expected to rise to 160% by 2050, and the birthrate for the second highest band of 25-29 is also expected to rise from the current 137% to 143%. The third birthrate peak for the age band of 30-34 is projected to stay more or less flat, and no significant changes are foreseen for other age bands.

The Philippines with its high birthrate has a typical developing country structure in terms of its age-specific birthrate. The birthrate is high for all age bands. The peak age band of 25-29 in the 1995-2000 period recorded a birthrate of over 200%, followed by band 20-24 with 172%, 35-39 with 108%, 16-19 with 44%, 40-44 with 39% and 45-49 with 6%. An overall decline in the birthrate is projected for the period up to 2050, with a higher concentration in the age band of 25-29. The overall decline however is not accompanied by any signs of a trend towards late childbearing. Projections for India show a concentration in peak age bands that is more focused than in the Philippines. The peak age band in India in the 1995-2000 period was younger than in the Philippines, namely the 20-24 age group. This age band is followed by the bands 25-29 and 30-34, reaching 100% to 200%, respectively. All the other age bands also have high birthrates, which explains the high birthrate for the country as a whole. A decline is projected for all age bands, with no changes expected in the ranking and with a tendency for a higher concentration in the major age bands. Expected changes for Brazil, Mexico, Egypt and Kenya include: an overall decline in the birthrate from the high levels of the 1995-2000 age band and a further concentration on other specific age bands. One thing worth noting in the data for Latin America is the high birthrate of the age band 15-19 in comparison to other countries studied, although this rate is gradually declining.

In summary, the overall decline in the birthrate and the TFR tend to result in an increase in the birthrates of certain age bands. In addition, any progress towards the population structure of the developed countries is accompanied by increased birthrates in the higher age bands.

2-7 Aging Population with a Declining Birthrate

2-7-1 Cases of developed countries

The decline in the rate of increase in the population, the decline in the TFR and the concentration of childbearing in specific age groups all point to a major change in the demographic structure of the countries studied: the shift to a society with an aging population and a declining birthrate. Table 2-2 shows the average age and average life expectancy at birth for the countries studied in 2005 and those projected for 2050. While the average age is expected to rise in all countries, Japan's average age is higher than that of the UK, and Japan will be exceeded by Korea, Singapore and Hong Kong in the long term. Life expectancy at birth is also projected to rise to the range of the late 70s to early 80s. Even though life expectancy in Kenya is about 70s which is below this range, it is significant that its life expectancy will still increase by almost 20 years. The rise in the average age of the population and life expectancy at birth clearly point to a trend towards an aging population with a declining birthrate. With a view to analyzing this trend in more detail, the evolution of the productive-age population and the ratio of the dependent population to this productive-age population are examined in the following.

**Table 2-2 Average age of the population and the average life expectancy at birth
(average for males/females)**

	Average age of the population		Average life expectancy at birth	
	Year 2005	Year 2050	Year 2005	Year 2050
UK	39.0	42.9	78.3	83.5
Japan	42.9	52.3	81.9	88.3
Korea	35.1	53.9	76.8	84.4
Hong Kong	38.9	51.0	81.5	86.9
Singapore	37.5	52.1	78.6	84.5
Thailand	30.5	42.5	69.7	79.1
China	32.6	44.8	71.5	78.7
Philippines	22.2	37.9	70.2	78.6
India	24.3	38.7	63.1	75.9
Brazil	26.8	40.3	70.3	79.2
Mexico	25.0	43.0	73.7	81.3
Egypt	22.8	35.7	69.6	78.4
Kenya	17.9	27.6	50.3	69.3

Source: UN World Population Prospects

The number of children increases with the shift from Phase 1 to Phase 2 of the demographic transition, resulting in a rise in the ratio of the young dependent population (the ratio of the young dependent population to the productive-age population). In Phase 3, in which the birthrate declines, the ratio of the productive-age population (the ratio of the population aged between 15 years and 64 years to the total population) increases as the mass of children becomes adults and participates in economic activities. Economic growth is achieved to the extent that the population is duly absorbed into the society in the form of a productive labor force. In the movement to Phase 4, in which both the birthrate and mortality are stabilized at low levels, the age of members of the productive-age population become higher, raising the ratio of the elderly dependent population (the ratio of the elderly population to the productive-age population). When the ratio of the elderly dependent population increases further and the above-mentioned average life expectancy rises, the ratio of the population 65 years and older (the ratio of the population aged 65 years and older to the total population) as well as the ratio of the population 80 years and older (the ratio of the population 80 years and older to the total population) goes up. This is the general process of the phenomenon of population aging with a declining birthrate.

In the UK, the ratio of the young dependent population reached its peak of 62% in 1881. Ever since then, it has been declining slowly to 27% in 2005, and is estimated to stay at this level until 2050. The ratio of the productive-age population hit a peak of 69% in 1931, and came down to 66% by 2005 with a projected further decline to 60% by 2050. The ratio of the elderly dependent population was 24% in 2005 and is expected to reach a high of 38% in 2035 and to stay at that level until 2050. The declining ratio of young dependents and the rising ratio of elderly dependents are projected to cross each other in 2015. The ratio of those 65 years and older was 16% in 2005 with a forecast of 23.2% in 2050, and for those aged 80 years and older the ratio was 4.4% in 2005 with a forecast of 8.8% in 2050. The aging of the UK population has not peaked out yet. The shift from the rise in the birthrate to the arrival of a graying society has taken a very long time.

The ratio of the young dependent population in Japan hit a peak of 62% in 1940 and declined to 21% by 2005. It is projected to rise again to 26% by 2050, reflecting the expected rise in the birthrate and the TFR. The ratio of the productive-age population reached a peak of 70% in 1990 and came down to 66% by 2005 with a forecasted further drop to 51% by 2050. The ratio of the elderly dependent population was 30% in 2005 and is expected to reach a high of 70% in 2050. The declining trend in the ratio of young dependents and the rising ratio of elderly dependents already crossed each other in 2000. Thus the ratio of

those aged 65 years and older was 19.7% in 2005 with a forecast of 35.9% in 2050, and the ratio for those 80 years and older was 4.8% in 2005 with a forecast of 15.3% in 2050. Japan has already exceeded the UK in terms of the ratio of its elderly dependent population, entering the era of a graying society over a much shorter period than the UK. Moreover, the forecasted decline in the productive-age population, and the rise in the ratio of the elderly dependent population as well as the ratio of the elderly population to the total population suggest that Japan will have a larger number of elderly citizens than the UK.

2-7-2 Cases of NIEs

Korea saw the ratio of its young dependent population to the productive-age population hit a peak of 81% in 1965, followed by a decline to 26% by 2005 with a forecasted further decline to 22% by 2050. The peak ratio of young dependents was higher than the peaks experienced by the UK and Japan, a reflection of the higher rate of the natural population increase that arose due to the high birthrate and the sudden decline in mortality, a phenomenon that is typical of a rapidly developing country. Accordingly, the peak ratio for the productive-age population of Korea will be higher than the corresponding figures for the UK and Japan. The ratio of the Korean productive-age population was 72% in 2005, and it is expected to hit a peak of 73% in 2010 and to start falling to 54% by 2050. The ratio of the elderly dependent population was 13% in 2005 with a forecasted high of 65% in 2050. The trend in the declining ratio of the young dependent population and the rising ratio of the elderly dependent population are expected to cross each other in 2015, the same timing as for the UK. The ratio of the population 65 years and older to the total was 9.4% in 2005 with a forecast of 34.5% in 2050, and the proportion of the population who were 80 years and older was 1.4% in 2005 with a forecast of 13.0% in 2050. Korea is expected to enter the era of a graying society very quickly in the coming years. Japan is becoming a graying society over a shorter time span than the UK, but Korea is expected to do so over an even shorter period. Much of the Korean data related to the graying of its society indicates higher values than for the UK and nearly equal values to those for Japan.

Hong Kong experienced the peak ratio of its young dependent population at 73% in 1960 at an earlier stage than for Korea. It came down to 20% by 2005 and is projected to recover to 22% in 2050. The peak ratio of the young dependent population was higher than for the UK and Japan, although it was lower than that of Korea. The inflow of immigrants keeps the ratio of the productive-age population to the total population above the level for Korea as a whole: 73.6% in 2005 with a projected high of 74.3% in 2010, followed by a decline to 55% by 2050. The ratio of elderly dependents was 16% in 2005 with a forecasted high of 58% in 2050. The cross-over point between the trend in the ratio of the declining young dependent population and that of the rising elderly dependent population is projected to occur in 2015, around the same year as is estimated for the UK. The proportion of the total population that is 65 years and older was 12.0% in 2005 with a forecast of 32.3% in 2050 and for those 80 years and older it was 2.8% in 2005 and will be 13.2% in 2050. Like Korea, Hong Kong is expected to enter the era of a graying society very soon in the coming years.

The ratio of the young dependent population of Singapore hit a peak of 81% in 1965, and has come down to 27% in 2005 with a forecasted further decline to 23% by 2050. The peak ratio was at a very high level, as it was in Korea. The ratio of the productive-age population, which was 72% in 2005, is projected to reach a high of 74% in 2010 and then decline to 56% in 2050. The ratio of the elderly dependent population was 12% in 2005 and is projected to reach a high of 56% in 2050. The trend in the declining ratio of the young dependent population and the trend in the rising ratio of the elderly dependent population are expected to cross each other slightly later than Korea or Hong Kong in 2020. The ratio of the population 65 years and older to the total population was 8.5% in 2005 and is projected to increase to 31.3% by 2050, and the proportion of those 80 years and older was 1.5% in 2005 and is projected to reach 14.0% in 2050. In summary, the NIEs will become graying societies very quickly in the coming years.

2-7-3 Cases of Southeast Asia and China

Thailand hit its peak for the ratio of the young dependent population at 88% in 1965. This ratio declined to 34% by 2005 and is expected to decline further to 27% by 2050. The peak figure was even higher than that of Korea. The ratio of the productive-age population was 69% in 2005, and is expected to hit a high of 70% in 2010 and then decline to 62% by 2050. Although the ratio of the productive-age population to the total population is expected to decline, it is higher than the level of the NIEs countries. The ratio of the elderly dependent population was 10% in 2005 and is projected to rise to 35% by 2050. It is not expected to become significantly higher until the second half of the 21st century, supposedly surpassing the ratio of the young dependent population only as late as 2040. The proportion of the population of those 65 years and older was 7.1% in 2005 with a forecast of 21.4% in 2050, and that of those 80 years and older was 0.8% in 2005 with a forecast of 5.8% in 2050. The expected proportions for 2050 are slightly below those of Japan in 2005. It is almost certain that Thailand will become a graying society in a shorter time period than the developed countries, though not quite as short as is expected for the NIEs.

China experienced its peak ratio of the young dependent population to the productive-age population at 72% in 1965. This declined to 30% by 2005, and is projected to decline further to 26% by 2050. This peak value is higher than those of the UK and Japan, although it is lower than those of the NIEs. The ratio of the productive-age population was 71% in 2005, and is projected to reach a high of 72% in 2010, followed by a decline to 61% by 2050. Although declining in the coming years, it is still higher than those of the NIEs. The ratio of the elderly dependent population was 11% in 2005, and is projected to reach 39% in 2050. It is expected to rise further in the second half of the 21st century, after supposedly surpassing the ratio of the young dependent population in 2035, a little earlier than Thailand. The proportion of the total population aged 65 years and older was 7.6% in 2005 with a forecast of 23.6% in 2050 and that of the population aged 80 years and older was 1.1% in 2005 with a forecast of 7.2% for 2050. The projected proportion for 2050 is higher than for Thailand and is higher than that of Japan in 2005. In other words, China is expected to reach the level of Japan today in some 40 years. However, given the sheer size of its population, there is no telling what will really happen by then.

The Philippines saw its ratio of the young dependent population peak out at 91% in 1965. The ratio came down to 58% in 2005, and is projected to further decline to 28% by 2050. The peak value is higher than those of the NIEs. The ratio of the productive-age population was 61% in 2005, and is projected to reach a high of 69% in 2040 and to then decline slightly to 67% by 2050. This means that the Philippines will have an increasingly abundant productive-age population for some time to come and can gain the benefits of a young labor force until the mid-21st century. The proportion of the elderly dependent population was 6% in 2005 and will be still low at 21% in 2050. Accordingly, the Philippines is not expected to become a graying society until after the mid-century point, and the ratio of the young dependent population will not be exceeded by the ratio of the elderly dependent population as far as projections up to 2050 are concerned. The proportion of the total population aged 65 years and older was 3.9% with a forecast of 14.2% for 2050, and that of those aged 80 years and older was 0.5% with a forecast of 2.8% for 2050. Although the elderly population has increased gradually, the Philippines can count on an increasing productive-age population.

2-7-4 Cases of South Asia, Latin America and Africa

The ratio of the young dependent population in India hit its peak at 72% in 1965, declined to 51% by 2005, and is projected to decline further to 27% by 2050. The peak value is roughly equal to that of China. The ratio of the productive-age population was 63% in 2005, and is projected to reach a high of 69% in 2035 and decline slightly to 67% by 2050. This means that the ratio of the productive-age population will keep increasing for some time to come, and India can enjoy the benefits of an abundant young labor force until the mid-century point. The ratio of the elderly dependent population was 8% in 2005 and is not

expected to rise to more than 22% by 2050. Accordingly, India will not become a graying society until the second half of the century, and the ratio of the young dependent population will not be exceeded by the ratio of the elderly dependent population as far as projections up to 2050 are concerned. The proportion of the total population aged 65 years and older was 5.3% in 2005 with a forecast of 14.8% in 2050 and that of those aged 80 years and older was 0.8% in 2005 with a forecast of 3.3% in 2050. Although the elderly population will increase gradually, India, like the Philippines, will be able to count on an increased productive-age population.

Brazil had the peak in the ratio of its young dependent population in 1965 at 83%. The ratio came down to 42% by 2005, and is projected to decline further to 28% by 2050. The peak value is not much different from those of the NIEs. The ratio of the productive-age population was 66% in 2005, and is projected to reach a high of 67% in 2020, followed by a slight decline to 63% by 2050. The continued increase in the ratio of the productive-age population will last about 10 years longer than in the NIEs, but 20 years less than in the Philippines. The size of the productive-age population will peak out in the early 21st century. The ratio of the elderly dependent population was 9% in 2005, and is projected to reach 31% in 2050, which is 10 percentage points higher than that of the Philippines or India. It is expected to surpass the ratio of the young dependent population in 2050. The proportion of the total population aged 65 years and older was 6.1% in 2005 with a forecast of 19.2% in 2050 and that for those 80 years and older was 1.2% in 2005 with a forecast of 5.5% in 2050. The rates projected for 2050 are close to those of Japan in 2005.

Mexico's ratio of the young dependent population peaked in 1975 at 95%, fell to 49% by 2005, and is projected to decline further to become 27% in 2050. The peak value is very high, exceeding that of the Philippines. The ratio of the productive-age population was 64% in 2005, and is projected to rise to a high of 68% in 2025 and then decline to 62% by 2050. The expected duration of the continued rise in the ratio is 5 years longer than in Brazil and 15 years shorter than in the Philippines. The size of the productive-age population will peak in the early part of the 21st century. The ratio of the elderly dependent population was 8% in 2005 and is projected to rise to 34% by 2050. The level in 2050 is higher than that of Brazil. The rising ratio of the elderly dependent population is projected to surpass the ratio of the young dependent population in 2045. The proportion of the population 65 years and older was 5.3% in 2005 with a forecast of 21.1% in 2050 and that 80 years and older was 1.0% in 2005 with a forecast of 5.8% in 2050. The figures for 2050 are higher than those of Japan in 2005.

Egypt experienced the peak ratio of the young dependent population of 83% in 1965. This ratio came down to 54% by 2005 and is projected to decline further to 32% by 2050. The peak value is on the same level as those of the NIEs. The ratio of the productive-age population was 62% in 2005, and is projected to rise to a high of 67% in 2040, and then decline to 66% by 2050. The expected continuation of the rise in this ratio will allow Egypt to count on an abundant young labor force until the middle of the century. The ratio of the elderly dependent population was 8% in 2005 and is not expected to rise to more than 20% even in 2050. Egypt will enter the era of a graying society only in the second half of the century, and the ratio of the elderly dependent population will never be higher than the ratio of the young dependent population as far as the projections up to 2050 are concerned. The proportion of the population 65 years and older was 4.8% in 2005 with a forecast of 13.3% in 2050 and that 80 years and older was 0.6% in 2005 with a forecast of 2.4% in 2050. Although the size of the elderly population will increase gradually, Egypt, like the Philippines, can expect an increase in the size of its productive-age population for some time to come.

Kenya saw its peak ratio of the young dependent population reach 106% in 1985. The ratio fell to 79% by 2005, and is projected to decline further to 43% by 2050. This peak value is the highest of all the countries studied. The ratio of the productive-age population was 54% in 2005, and is projected to continue rising to reach 66% in 2050, allowing Kenya to have an abundant young labor force well into the second half of the 21st century. The ratio of the elderly dependent population was 5% in 2005 and is projected to

still be low at 10% in 2050. Accordingly, Kenya is not expected to become a graying society before the second half of the 21st century, and the ratio of the elderly dependent population will not exceed the ratio of the young dependent population as far as projections up to 2050 are concerned. The proportion of the population 65 years and older was 2.8% in 2005 with a forecast of 6.3% in 2050, and that 80 years and older was 0.4% in 2005 with a forecast of 0.8% in 2050. Although the size of the elderly population will grow gradually, an increase in the size of the productive-age population is expected into the second half of the 21st century.

The UK is replicated by Japan in its experience of entering a graying society in a shorter period of time, which in turn is expected to be replicated by the NIEs in yet shorter periods of time. China and the Latin American countries will follow suit, probably not soon, but certainly some time during the first half of this century. The phenomenon of an aging society with a declining birthrate will not occur in the Philippines, India or Africa until the second half of the century. However, it will proceed over a time period shorter than was experienced by the developed countries, though not as short as will have been experienced by the NIEs. The future evolution of population dynamics leaves no room for optimism.

2-8 Economic Growth and Labor Absorption

2-8-1 Labor absorption

Table 2-3 shows the quotients of incremental/differential employment in the primary, secondary and tertiary industries of the countries studied, divided by the total incremental employment. In other words, they represent the degree of the contribution of each industry group to the absorption of the labor force. In the UK, both the primary and secondary industries showed negative contributions and all the incremental labor force was already absorbed by the tertiary industry before the war. In addition, the slowing of the rate of increase in the population encouraged the participation of women in the workforce. The evolution of Japan is rather similar to that of the UK; the primary industry showed a negative contribution and the major proportion of the labor absorption was by the tertiary industry while the secondary industry did not necessarily show a negative contribution. The contribution to female labor absorption was over 40% after the war. The evolution in Korea and Singapore is similar to that of Japan, and that of Hong Kong is similar to the UK. All the other countries studied still show positive contributions by the primary industry, and have not yet shifted to the employment structure of the developed countries, which is characterized by a single digit percentage share of the total employment held by the primary industry. This reflects the inability of the manufacturing, services and other modern urban sectors to achieve sufficiently strong growth to absorb labor. For instance, Japan achieved an average annual economic growth of 5.72% between 1940 and 2000, while the UK grew at an average annual rate of 2.48% over the same period. This high level of economic growth allowed Japan to absorb its incremental population, which was greater than in the UK. The average annual growth rate of Korea was 7.69% (for the period 1960-2000, which applies also to other countries discussed below with the exception of China), while those of Hong Kong and Singapore were 8.07% and 8.77%, respectively. China has had a similarly high growth rate of 8.26%, but the sheer size of its population makes it essential that this high level of growth be maintained in order to absorb labor. The growth rates of other countries are: 6.85% for Thailand, 4.38% for the Philippines, 4.76% for India, 4.73% for Brazil, 4.52% for Mexico, 5.02% for Egypt and 4.52% for Kenya. Except for Thailand, which has a relatively high growth rate, these countries have growth rates 3 to 4 percentage points lower than the NIEs over the 40-year period.

Table 2-3 Contribution to labor absorption

(Employment and Incremental employment: Thousand people, Contribution to labor absorption: %)

UK	1841	1931	Incremental employment (1841-1931)	Contribution to labor absorption (1841-1931)	1951	2004	Incremental employment (1951-2004)	Contribution to labor absorption (1951-2004)
	Number of employment	Number of employment			Number of employment	Number of employment		
Total	7,124.0	21,073.0	13,949.0		22,610.0	28,008.4	5,398.4	
Primary industry	1,539.0	1,257.0	- 282.0	- 2.02	1,142.0	356.2	- 785.8	- 14.56
Secondary industry	3,275.0	9,716.0	6,441.0	46.18	11,099.0	6,208.0	- 4,891.0	- 90.61
Tertiary industry	2,310.0	10,100.0	7,790.0	55.85	10,369.0	21,370.0	11,001.0	203.80
Female employment	1,815.0	6,273.0	4,458.0	31.96	6,961.0	12,970.7	6,009.7	111.33

Japan	1872	1940	Incremental employment (1872-1940)	Contribution to labor absorption (1872-1940)	1950	2004	Incremental employment (1950-2004)	Contribution to labor absorption (1950-2004)
	Number of employment	Number of employment			Number of employment	Number of employment		
Total	17,074.0	31,783.0	14,709.0		35,627.0	63,290.0	27,663.0	
Primary industry	14,495.0	14,193.0	- 302.0	- 2.05	17,208.0	2,860.0	- 14,348.0	- 51.87
Secondary industry	833.0	8,563.0	7,730.0	52.55	8,037.0	17,960.0	9,923.0	35.87
Tertiary industry	1,746.0	9,027.0	7,281.0	49.50	10,382.0	41,760.0	31,378.0	113.43
Female employment		12,632.0	12,632.0	85.88	13,756.0	26,160.0	12,404.0	44.84
Out of category						670.0	670.0	2.42

Korea	1955	2004	Incremental employment	Contribution to labor absorption
	Number of employment	Number of employment		
Total	8,071.0	22,557.0	14,486.0	
Primary industry	6,436.0	1,825.0	- 4,611.0	- 31.83
Secondary industry	647.0	6,198.0	5,551.0	38.32
Tertiary industry	988.0	14,534.0	13,546.0	93.51
Female employment	3,220.0	9,364.0	6,144.0	42.41
Out of category				

Hong Kong	1978	2004	Incremental employment	Contribution to labor absorption
	Number of employment	Number of employment		
Total	2,002.8	3,287.6	1,284.8	
Primary industry	29.9	8.8	- 21.1	- 1.64
Secondary industry	1,022.9	513.4	- 509.5	- 39.66
Tertiary industry	704.4	1,478.2	773.8	60.23
Female employment	948.3	2,765.6	1,817.3	141.45
Out of category	1.5			

Singapore	1957	2003	Incremental employment	Contribution to labor absorption
	Number of employment	Number of employment		
Total	423.0	2,033.7	1,610.7	
Primary industry	40.0	5.0	- 35.0	- 2.17
Secondary industry	98.0	490.3	392.3	24.36
Tertiary industry	285.0	1,536.4	1,251.4	77.69
Female employment	66.0	911.1	845.1	52.47
Out of category		2.0		

Thailand	1960	2004	Incremental employment	Contribution to labor absorption
	Number of employment	Number of employment		
Total	13,825.0	35,712.0	21,887.0	
Primary industry	11,334.0	15,115.0	3,781.0	17.28
Secondary industry	584.0	7,325.0	6,741.0	30.80
Tertiary industry	1,907.0	13,249.0	11,342.0	51.82
Female employment	6,719.0	16,013.0	9,294.0	42.46
Out of category		23.0		

Philippines	1960	2004	Incremental employment	Contribution to labor absorption
	Number of employment	Number of employment		
Total	7,843.0	31,741.0	23,898.0	
Primary industry	5,162.0	11,785.0	6,623.0	27.71
Secondary industry	1,052.0	4,880.0	3,828.0	16.02
Tertiary industry	1,629.0	15,075.0	13,446.0	56.26
Female employment	1,955.0	11,905.0	9,950.0	41.64
Out of category		1.0		

China	1987	2002	Incremental employment	Contribution to labor absorption
	Number of employment	Number of employment		
Total	527,830.0	737,400.0	209,570.0	
Primary industry	316,630.0	324,870.0	8,240.0	3.93
Secondary industry	117,260.0	130,480.0	13,220.0	6.31
Tertiary industry	56,640.0	119,010.0	62,370.0	29.76
Out of category	37,300.0	163,040.0	125,740.0	60.00

Brazil	1960	2003	Incremental employment	Contribution to labor absorption
	Number of employment	Number of employment		
Total	22,652.0	80,163.0	57,511.0	
Primary industry	11,698.0	16,568.0	4,870.0	8.47
Secondary industry	3,363.0	16,742.0	13,379.0	23.26
Tertiary industry	7,591.0	46,853.0	39,262.0	68.27
Female employment	4,057.0	32,850.0	28,793.0	50.07
Out of category				

Mexico	1970	2004	Incremental employment	Contribution to labor absorption
	Number of employment	Number of employment		
Total	12,957.0	42,306.1	29,349.1	
Primary industry	5,104.0	6,937.9	1,833.9	6.25
Secondary industry	2,976.0	10,501.7	7,525.7	25.64
Tertiary industry	4,877.0	24,704.0	19,827.0	67.56
Female employment	2,468.0	14,949.0	12,481.0	42.53
Out of category		162.5		

Egypt	1960	2003	Incremental employment	Contribution to labor absorption
	Number of employment	Number of employment		
Total	7,783.0	18,118.6	10,335.6	
Primary industry	4,406.0	5,411.3	1,005.3	9.73
Secondary industry	920.0	3,578.6	2,658.6	25.72
Tertiary industry	2,457.0	9,127.2	6,670.2	64.53
Female employment	619.0	3,466.9	2,847.9	27.55
Out of category				

Source: ILO World Labour Report

2-8-2 Korea's strong labor absorption through economic growth

It goes without saying that all the developing countries (except for the NIEs) are expected to see the size of their productive-age population increase, as was reviewed earlier, and therefore they are able to capitalize on this to achieve economic growth. However, to do so, a prerequisite is that they have modern sectors that can vigorously absorb labor as the NIEs have done. Let us now analyze this issue by comparing the specific examples of Korea and the Philippines.

The urban population ratio for Korea jumped from 21.4% in 1950 to 80.8% in 2005.¹⁹ This was accompanied by a decline in the size of the farm population in terms of absolute numbers. The female farm population declined in the late 1960s, and so did the male farm population in the first half of 1970s. The increase in the urban population ratio is observed in many developing countries, but this is in relative terms against the farm population. Few countries have experienced a decline in the farm population in absolute terms. In Korea, urban industries based mainly on manufacturing developed very quickly and absorbed the surplus farm population. A major characteristic of Korean economic development is that the total female farm population declined in absolute terms ahead of the male population. The production of apparel and other light industry products for export markets led the industrialization in the 1960s. The demand for female workers increased, attracting a large number of women from the countryside to the cities. The development of heavy industries began in the late 1960s, creating an increased demand for the male workforce and initiating a decline in the male farm population in absolute terms.

Another major characteristic of Korean urbanization is the high degree of its concentration in large cities and their surrounding areas. The population of Seoul was 2.445 million in 1960 accounting for 9.9% of the total population. It climbed to 6.889 million in 1975 and increased further to 10.612 million in 1990, or 24.8% of the total population. One out of four Koreans lived in Seoul at that time. The population of Busan, the largest city next to Seoul, increased from 1.164 million in 1960 to 2.453 million in 1975 and to 3.798 million in 1990, accounting for 8.9% of the total population. In the Korean system of local government that consisted of these two Metropolitan Cities and nine Provinces (*do's*) until it was reorganized in 1980, a net inflow of people was observed only in the two metropolitan cities and Gyeonggi-do. In Gyeonggi-do, a number of satellite cities and industrial parks were constructed to cope with the problem of the over-concentration of industries in Seoul and indeed absorbed a large population. The population of Gyeonggi-do increased from 4.039 million in 1975 to 4.794 million in 1985 and to 7.649 million in 1995. Apart from this, new industrial sites were opened in cities such as Masan to promote heavy industries, to which a large number of people moved, further accelerating urbanization in Korea.

The migration to the cities impacted farms by eliminating the surplus population and allowing the traditional sectors to flourish. The process of Korean economic development was based on a strategy of export-oriented industrialization by which the mechanism of “increased exports → increased imports → increased investment → increased production → increased productivity → increased exports” progressed, thus achieving further sophistication of the industrial structure. The success of the manufacturing sector attained through this “virtuous circle” of development produced positive ripple effects on other sectors. The share of the secondary industry (mining and manufacturing) rose from 16.4% in 1962 to the peak of 33.2% in 1988. It would have gone up to over 40% if construction and power/gas supply were included in the secondary industry in the broad sense of the term. The increased production in mining and manufacturing

¹⁹ The data on Korea here rely on the following:

Statistical Yearbook, various years, National Statistical Office (NSO);

Economic Statistics Year Book, various years, The Bank of Korea;

Major Economic Indicators, various years, Ministry of Planning & Budget;

AIDXT (trade data search system), Institute of Developing Economies (of Japan);

Farm Economic Survey Year Book, various years, Ministry of Agriculture & Forestry (of Korea);

Labor Statistical Yearbook, various years, NSO.

increased employment. Between 1962 and 1988 (the numbers in manufacturing labor force reached a peak in 1988), total employment in the Korean economy increased by approximately 9 million, of which 5 million were absorbed by the mining, manufacturing and construction industries. Development of the manufacturing and other secondary industrial sectors that was accompanied by such strong labor absorption is indeed the most important factor for developing countries suffering from a surplus productive-age population. It has a major impact not only on the modern sector itself, but also on the agricultural and other traditional sectors.

2-8-3 Ripple effect of Korean economic development on the traditional sectors

Primary industry, comprising agriculture, forestry and fisheries, lost its share of total employment almost constantly, and in absolute terms, too, the sector saw its level of employment decline from the peak of 5.50 million in 1976. The problem of the distribution of the surplus labor force was reflected in the changes in real wages on the farm. Farm wages in real terms (wages paid by farm households converted to real terms using the consumer price index) increased moderately from 62.1 in 1962 to 77.8 in 1970 (indexed to the base year of 1975), rose sharply in the mid-1970s when the numbers in farm employment started decreasing, and reached as high as 194.7 in 1980.

In addition to wages, the price of land, which is a resource in limited supply, increased along with the expansion of the economy. On the other hand, the price of chemical fertilizers, farm machinery and other agricultural inputs declined in relative terms, thanks to the increased supply availability brought about by progress in the manufacturing industry. Looking at the prices for the production factors for 100 liters of polished rice, it is found that the labor costs and land costs nearly doubled between 1960 and 1980, while the costs of farm machinery and chemical fertilizers declined to one half or one third. These changes in the relative prices of the production factors altered the production structure to one characterized by a heavier input of machinery and chemical fertilizers in place of manual labor. Factor substitution took place in Korean agriculture, reflecting the evolution of factor prices; the capital-labor ratio (value of farm machinery, chemical fertilizers and other modern inputs per farmer) as well as the capital-land ratio (value of modern inputs per unit farm area) increased about 5-fold between 1960 and 1980.

In addition to production factor substitution, other factors were the introduction of new crop varieties, namely, high-yield varieties, enhanced farm production (self-sufficiency in rice was accomplished in the early 1970s) and improved agricultural productivity. Between 1960 and 1980, agricultural labor productivity increased about four fold and agricultural land productivity about 3.5 times. Coupled with the improved productivity, the government farm pricing policy of the early 1970s (the government support price of rice was maintained at a high level in the context of the Saemaeul Movement, a government-led campaign for farm development) increased farmer's income. The income level of farm households, which traditionally had been approximately 60% of the level of urban households, even exceeded it at some points in time in the mid-1970s. Farm incomes almost tripled in real terms between 1960 and 1980, and the Engel's coefficient that indicates the ratio of food in the total expenditures of a farm household declined to 35% in the early 1980s from the level of 60% in the early 1960s. The economic well-being of the agricultural sector in Korea was improved considerably.

As discussed above, the development of the manufacturing sector helped the agricultural sector achieve prosperity through the process of "a change in relative price of production factors → production factor substitution → increased production → improved productivity → improved economic wellbeing." At the same time, it contributed to the further advancement of the manufacturing sector itself by permitting an increased supply of labor from the agricultural sector. In other words, a kind of interaction between the agricultural and manufacturing sectors took place in the process of Korea's economic development.

Tertiary industry, too, changed as a result of the success of the manufacturing industry. The services industry of Korea in the 1950s and the 1960s was heavily dominated by the informal sector, which

consisted of various trades and is common in developing countries. The informal sector is known for its underemployment and low wages. These characteristics make it an easy industry for newcomers to enter and a pervasive industry in the overpopulated cities of developing countries. The number of underemployed workers²⁰ (hours worked being less than 18 a week) in Korea, which was 667,000 in 1962, declined rapidly during the 1970s to reach 126,000 in 1985 (the sum of underemployed and unemployed workers peaked in 1966 with 1.338 million, or 17.6% of the productive-age population). This decline is reflected in the decreased share of the services sector in the GDP during the 1960s and 1970s, supposedly due to the replacement of the informal sector by modern industry. Real wages in the services industry rose about 1.3 times between 1968 and 1975, and about 1.8 times between 1976 and 1986. The decline in the number of underemployed workers (though for the entire economy) and the rise in real wages in the services sector suggest that the informal services sector has disappeared from Korea. It was not only that the workers in the informal sector were absorbed into the manufacturing sector, but also that economic progress created the need for a modern services sector, which was filled by the transformation of the informal sector into a formal industry.

The growth of the overall economy raised the per capita income, an important indicator of economic development. Korea's per capita income, which was below the US\$100 level in the early 1960s passed the US\$1,000 mark in the late 1970s, and is now close to US\$10,000. Along with the remarkable rise in per capita income, equalization of income distribution advanced to a considerable extent. Gini's coefficient, a measure that indicates the degree of inequality in income distribution, declined from 0.37 in the 1960s to 0.33 in the 1970s. This is almost comparable to Japan's 0.30 in the 1970s, a country known as one of the most egalitarian countries in the world in terms of income distribution. In Korea, the incremental wealth from economic development was distributed evenly among the overall population. Traditional sectors as well as modern sectors prospered, a fact that prevented the income divide from widening.

In summary, the key to Korea's economic development and demographic transition was the enhancement of labor absorption, or the real demand for labor.

2-8-4 Poverty-stricken Philippines

The secondary industry of the Philippines (mining, manufacturing, power and gas, and construction) contributed to 30% of GDP in the 1960s, 39% in 1980, and 37% in 2001. However, it accounted for only 15% of total employment in 1980, and 16% in 2001. The incremental population therefore had to find jobs in the agricultural or services sectors.

However, the situation surrounding Philippine agriculture was not favorable, either. The cultivated area increased from the 1950s to the mid-1970s at an average annual rate of slightly above 2%. The total cultivated area reached 98% of arable land in 1975, virtually eliminating the possibility of farm area expansion any longer. The average cultivated area per farm household kept declining from 3.59 to 2.84 and to 2.16 hectares in the agriculture census years of 1960, 1980 and 1990, respectively.²¹ This is not small, though, when compared to the average cultivated area of Korean farm households, which was 1.05 hectares in the agricultural census year of 1990.²² In Korea, the peasantry was banned by the agrarian reform implemented during the 1950s. As a result, the average farmer owned farmland of no more than 3 hectares and 90.2% of farm households owned a maximum of 2 hectares of cultivated land each, an area that is approximately twice the average area according to the 1990 census. These farms altogether owned 71.8% of the total cultivated area in the country. In the Philippines, similarly, 90.5% of farm households owned a maximum of 5 hectares of cultivated land each, an area approximately twice the average area according to

²⁰ This is data for all industries, since no data on the services industry alone is available.

²¹ FAO (1997)

²² *Ibid.*

the 1990 census. In stark contrast to Korea, however, these farms altogether owned only 56.1% of the total cultivated land in the country. In the agricultural sector, 2.01% of farm households owned farmland ranging between 10 to 25 hectares each, accounting for 13.0% of the total cultivated area altogether, and 0.28% of farm household with farmland of 25 hectares or more accounted for 10.4% of the total cultivated area.

Simple statistics show that an average Philippine farmer cultivates a fairly large area, but the inequality in the ownership of farmlands allowed the sector to absorb an increasing labor force not as independent land-owning farmers, but only as peasants or farm workers. For example, the number of underemployed workers on farms increased from 1.27 million in 1971 to 2.58 million in 1980. As preparatory work for formulating a new plan, the NEDA (National Economic and Development Authority) estimated that the ratio for farm underemployment (ratio of underemployed to the total working population) was 42.4% in 1986 and the number of unemployed was close to 600,000.²³ The number of people who did not work regularly increased because they did not own land. The increase in underemployment and unemployment acted as pressure to bring down wages; the real wage index of the agricultural sector (1969 peak = 100, payment in kind excluded) fell to 79 in 1975 and 70 in 1985, though some signs of a recovery were observed in the latter half of the 1980s. Farm wages in the Philippines were 92.27 pesos (nominal) or US\$3.58 a day in 1995. In Peru, a country for which comparable data is available for the same year, the daily farm wage was US\$10.7. The farm wage level of the Philippines was indeed low.²⁴ The decline in real wages raised the number of people living in absolute poverty. A 1985 NEDA study showed 63.7% of farm households had income below the absolute poverty line, which was then 2,066 pesos a month (ca. 13,000 yen) for a farm family of six.²⁵ Furthermore, an ILO report states that 54% of the farm population was below the poverty line in 1990 and a large majority of them owned no land.²⁶

2-8-5 Farmers in misery, sprawling of the city slums

However, the poverty of Philippine farmers was not brought about by any stagnation in agricultural production. Computing from production indexes, it was found that the Philippine agricultural sector grew at an average annual rate of 4.7% between 1950 and 1985. Though lower than Korea (5.8%), this growth rate is higher than in Taiwan (4.0%) and Indonesia (2.9%).²⁷ More recently, between 1985 and 2001 the rate was 3.6%, which represented a relatively high growth for the agricultural sector. This high growth must have been brought about by some sort of technological advancement, since the Philippines had no room for any further expansion of its arable land. Technologies applied to agriculture can be generally classified into: (a) land-saving technologies, including biological improvements (high-yield crop varieties), the application of chemical fertilizers and pesticides, and irrigation, and (b) labor-saving technologies represented by the introduction of farm machinery. In countries with a surplus population, it is ideal to first employ land-saving technologies in order to enhance production and then to introduce labor-saving technologies in line with the changes in the production factors.

Changes in the number of farm machines used in Korea and the Philippines in 1980 and 2000 were as follows: farm tractors, from 3,000 units to 192,000 for Korea and from 11,000 to 12,000 for the Philippines; combine harvesters, from less than 1,000 units to 87,000 for Korea and from less than 1,000 to approximately 1,000 for the Philippines.²⁸ While the introduction of farm machinery in Korea was made in accordance with the progress of the economy and agriculture, no significant additions were made in the

²³ NEDA (1986) Medium-Term Philippine Development Plan 1987-92, Manila, 1986.

²⁴ The following data were used for international comparison:

World Development Report, various years, World Bank;

World Development Indicators, various years, World Bank.

²⁵ Estimates in NEDA (1985) *Family Income and Expenditure Surveys 1985*

²⁶ ILO (1993)

²⁷ Computed from FAO, *Production Yearbook*, various years

²⁸ FAO, *Production Yearbook*, various years

Philippines to the machinery that was initially introduced. Seen from a different angle, labor-saving technologies were brought into the Philippines from an early stage. This difference between the two countries may be explained by the difference in the size of the farmlands; in the Philippines farm machinery must have been introduced for the purpose of the expeditious farming of larger areas. For instance, the break-even land area for the introduction of an automatic cultivator in the Philippines in the mid-1970s was: 12 hectares for an imported machine (diesel engine, 7 horsepower), 6 hectares for an ordinary domestic machine (gasoline engine, 7 horsepower), 5 hectares for a domestic machine developed by the IRRI (International Rice Research Institute) (diesel engine, 5-7 horsepower), and for reference purposes 2.5 hectare for a water buffalo, the traditional draft animal used for cultivation.²⁹ As soon as the production of IRRI-developed popular-type cultivators started in 1972, the demand for cultivators expanded rapidly. The average annual sales of cultivators, which was 1,480 units during the 1965-72 period, skyrocketed to 7,568 units during the period 1973-1975.³⁰ Even among farmers without cultivators, dependency on contracted cultivation by the owner of a large machine increased. It is reported that 93% of farmers without a cultivator used contract cultivation.³¹ The farm population kept rising due to the lack of sufficient labor absorption by the modern sectors, and prevented reform of the small-farm structure of the Philippine agricultural sector. The kind of shift that Korea made to the stage of extended use of farm machinery did not occur in the Philippines.

In the case of small-scale family farming, the labor input is not recognized as a cost and is not eliminated if migration to a different sector is not possible. The individual is usually supported within the family system. In large-scale farming with employed labor, however, input labor is a cost, and machine-labor substitution will occur if it is economically justified. Rational decisions in the context of the Philippine farm ownership structure contributed to the modernization of the agricultural sector and improved farm production and productivity. On the other hand, they forced farmers without land ownership out of the agricultural sector and into poverty.

For these reasons, ex-farmers moved to the cities. The proportion of the urban population compared to the total Philippine population rose from 30% in 1960 to 43% in 1990 and 63% in 2005, and one-third of the urban population was concentrated in Metropolitan Manila. Between 1970 and 2005, the country's population grew by 46.5 million, 86% of which was in the urban population. A University of the Philippines study showed that 61% of employees in 3,500 business establishments with less than 10 employees were from outside Metropolitan Manila.³² Many of the new arrivals could not get productive job opportunities in the city and found their way into the informal sector, since urban industries did not have a sufficiently strong labor absorption capacity and because they themselves did not have the basic capabilities for work in the modern services sector. The underemployed in cities doubled from 510,000 in 1971 to 1.06 million in 1981. It is believed that the total number of underemployed and unemployed in the cities accounted for 19% of the urban population in 1971, 28% in 1981, and 39% in 1986.³³ In the Philippines, employment declined in primary industries (from 61.1% in 1960 to 37.4% in 2001), stayed nearly flat in secondary industries (approximately 15-16%), and increased in tertiary industries (from 22.9% to 47.0%). Much of the labor force absorbed by tertiary industries was into the informal sector characterized by low productivity. Expansion of the urban informal sector increased the number of people in absolute poverty in the cities. In 1985, 52.1% of all city dwellers lived below the urban absolute poverty line (income of 3,021 pesos or less a month for a family of six), of which 44.1 percentage points corresponded to the proportion

²⁹ Institute of Developing Economies (of Japan) (1977)

³⁰ *Ibid.*

³¹ Hayami and Kikuchi (1981)

³² Jurado and Castro (1976)

³³ Estimates by Department of Labor and Employment

of people living in Metropolitan Manila.³⁴ In short, the problem of rural poverty was not solved by migration to the cities; rather, this migration served to transfer poverty from the rural areas to the cities.

As a result of the history of economic development examined above, which was also affected by religious factors, the birthrate in the Philippines remains high and the continued population increase has created a situation of almost chronic poverty. Korea on the other hand is on the verge of entering a society with an aging population and a declining birthrate that has been brought about by rapid economic development and the accompanying demographic transition. The major difference between the two countries is in the different ability of the modern urban sectors to absorb labor. The challenge for the Philippines is how effectively the increasing productive-age population will be brought into formal economic activities. The productive-age population is not expected to hit its peak until the middle of the century. If it is unsuccessful, the country will become a society with an aging population and a declining birthrate and with a large number of unemployed people. The socioeconomic burden of supporting such a society will be extraordinary. How the Philippines meets this important challenge will undoubtedly provide useful lessons to a number of developing countries that are expected to enter the phase of an aging society with a declining birthrate by the end of this century.

³⁴ Estimates by NEDA, *Family Income and Expenditure Surveys 1985*

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Chapter 3

An Aging Population with a Declining Birthrate and Economic Development in Developing Countries

Keiichiro Oizumi

3-1 Introduction

In general, the relationship between economic growth and population dynamics has been discussed from the perspective of population size and the rate of population increase as the major parameters. In recent years however the focus is shifting to changes in the demographic structure as represented by terms such as “fewer children” and the “aging population.” There is a time lag between the decline in the birthrate (“fewer children”) and the increase in the proportion of elderly in the total population (“aging population”) in developing countries. A decline in the birthrate functions not only to reduce the rate of increase in the population, but also to increase the proportion of the productive-age population (aged between 15 years and 64 years) for a time. If the birthrate continues to decline, the ratio of the elderly dependent population to the productive-age population will gradually increase, thus making the developing country an “aging society with a declining birthrate” as has been experienced by the developed countries.

In this Chapter, we will discuss the impact that such changes in the demographic structure are having on the economic growth of developing countries. We will review some policy measures that are considered to be effective in maximizing the benefits and minimizing the negative impacts. In addition, overseas development assistance that is considered to be effective in supporting these measures will be discussed.

The effects of population dynamics and structure upon economic growth change over time. For the discussion in this Chapter therefore the following three time stages will be used:

- (1) “Population explosion stage” when the rate of increase in the population is high and the young dependent population is large,
- (2) “Demographic dividend stage” when the birthrate is declining and the ratio of the productive-age population to the total population is rising, and
- (3) “Aging population stage” when the decline in the birthrate is continuing and the proportion of the elderly dependent population is rising.

It should be noted however that the terms “population explosion stage,” “demographic dividend stage” and “aging population stage” are for the purpose of convenience and there are no established standards for these definitions. In this Chapter, a country is regarded as being in the “population explosion stage” when its young dependent population is over 40% of the total population, in the stage of the “demographic dividend” when its productive-age population is in excess of two-thirds of the total population, and in the stage of an “aging population” when the proportion of the elderly dependent population is over 14%. The “Population Dynamics Map” (Annex 1), shows the stage in which each developing country finds itself and will find itself today and in the future.

Developing countries that are heading for the aging population stage must build up their health care, old age pension and other social security systems to help stabilize the life of their elderly citizens. However, in developing countries, it is more difficult than in the developed countries to build up a social security system, since the income levels, infrastructure and legal system are not sufficiently established. Furthermore, the design of such a social security system will not only have a bearing on achieving social stability, but also will strongly influence the economic growth of the country. In the latter half of this chapter therefore we will shed light on the issue of implementing social security systems in developing

countries, and will examine their common characteristics in the light of the aging population and other changes that are taking place in and around these countries.

For each issue we will be taking up in this chapter, we will first illustrate the major characteristics and challenges that are commonly observed among developing countries, and then have a more specific discussion on East Asian countries (particularly China and Thailand) that have experienced a considerable drop in their birthrates and are entering the aging population stage very quickly.

3-2 Economic Development and Development Aid in the Population Explosion Stage

As symbolized by the term “population explosion,” the pressure from a rapidly increasing population has been regarded as detrimental to a country’s economic development. Although the birthrate appears to have been falling on a global level since the 1980s, many countries are still suffering from the problems related to a surplus population.

Let us therefore define a “high-birthrate/low-mortality country” as a country that has a young dependent population accounting for at least 40% of its entire population, and review the demographic evolution of such countries. According to the UN population estimate, the number of “high-birthrate/low-mortality countries”³⁵ increased from 87 countries³⁶ in 1950 to 129 in 1965. It has since then declined to 103 in 1980 and 66 in 2000 (see Table 3-1). The birthrate is projected to fall in these countries, too, and the number of “high-birthrate/low-mortality countries” is expected to be 26 in 2020, 7 in 2040 and nil by 2050. However, one-third of the countries on this Earth are still suffering from a surplus population.

Forty-four of the 66 “high-birthrate/low-mortality countries” in the year 2000 were in Africa, especially in the sub-Saharan Region. In Asia most are in Central Asia and Southwest Asia. On the other hand, countries in East Asia, Southeast Asia and Latin America have passed this stage already with few exceptions.

With respect to income levels, “high-birthrate/low-mortality countries” are concentrated in the group with a per capita GDP below US\$1,000. The per capita GDP growth of these countries was 0.15% p.a. on average (1990-2000), or virtually a zero growth rate. Countries that have a young dependent population in the range of 30% to 40% of the total population recorded 1.5% growth for the same period. It is easy to see that “high-birthrate/low-mortality countries” are at extremely low income levels and find it very difficult to achieve economic growth.

Those who are involved in development issues have long regarded a high rate of population growth as a major impediment to economic growth. In development economics, it has been known as the “trap of low level equilibrium.” This model explains that a country’s income is forced to stay at low levels since the speed of the increase in production and income is exceeded by that of the increase in the population. The government leaders of developing countries, too, have come to believe that population pressures stand in the way of development plans. Since the late 1970s, China has adopted a One-Child Policy. Thailand took up population control as an important development challenge in its Third Economic Plan (1971-1976) as well as in the Fourth Economic Plan (1976-1981), and vigorously promoted family planning. As a result, China’s young dependent population ratio dropped from 40.2% in 1965 to 27.7% in 1990. In Thailand, too, the ratio fell from 45.5% in 1965 to 39.7% in 1980 and to 31.9% in 1990. It remains a fact, however, that no effective population control measures have been implemented in the “high-birthrate/low-mortality countries.”

³⁵ Since the UN statistics include Hong Kong and Macao, the expression “countries and economies” would be more accurate. The term “countries” is used loosely in this paper for the purpose of brevity.

³⁶ Countries and economies with a population of 100,000 or larger according to the UN statistics.

Table 3-1 Number of countries/economies with a young dependent population of at least 40% of the total population

	Total 192	Africa 50	Asia 50	Europe 40	Latin America and the Caribbean 35	Northern America 2	Oceania 11
1950	87	38	24	1	18	0	6
1955	99	42	23	1	26	0	7
1960	115	46	32	2	27	0	8
1965	129	48	41	2	30	0	8
1970	124	51	37	2	26	0	8
1975	116	51	32	1	26	0	6
1980	103	50	26	1	20	0	6
1985	92	51	22	1	13	0	5
1990	84	49	22	1	8	0	4
1995	75	45	18	1	7	0	4
2000	66	44	13	1	4	0	4
2005	49	38	7	0	1	0	3
2010	37	32	4	0	1	0	0
2015	32	28	4	0	0	0	0
2020	26	23	3	0	0	0	0
2025	17	15	2	0	0	0	0
2030	15	14	1	0	0	0	0
2035	12	11	1	0	0	0	0
2040	7	7	0	0	0	0	0
2045	2	2	0	0	0	0	0
2050	0	0	0	0	0	0	0

Source: UN World Population Prospects

As far as these “high-birthrate/low-mortality countries” are concerned, continuation of the present style of development assistance will be required. Of particular importance will be the fulfillment of the MDGs (Millennium Development Goals) that have been set out by the United Nations Millennium Declaration. The issues of population problems and overseas assistance for the “high-birthrate/low-mortality countries” have been reviewed at the World Population Conference held in Bucharest in 1974, the International Conference on Population held in Mexico City in 1984, and at the International Conference on Population and Development held in Cairo in 1994. In the course of these conferences, “human rights approaches” including reproductive health/rights and equality of the sexes have been increasingly emphasized. In Japan, the issue of population assistance is discussed in detail in JICA (2003a) and other fora.

3-3 Economic Development and Overseas Development Assistance in the Demographic Dividend Stage

3-3-1 Demographic dividend

While there are still a large number of countries suffering from the problems resulting from facing a “high-birthrate/low-mortality” situation, an increasing number of countries are experiencing a “low-birthrate/low-mortality” phenomenon. The birthrate of developing countries has declined from 44.6‰ in 1950-1955 to 23.5‰ in 2000-2005. Particularly in Asia, it dropped by half from 43.0‰ to 20.1‰ over the same period.

Those countries that have successfully managed to lower the birthrate also appear to be steadily moving out of the “trap of the low income equilibrium,” although to varying degrees. Those countries that

have significantly lowered the birthrate since the 1980s, in particular, appear to be on sustained growth trends. In particular, East Asian countries were quick to accomplish the demographic transition from a “high-birthrate/low-mortality” to a “low-birthrate/low-mortality” state and have achieved high economic growth sometimes referred to as a miracle.

Conventionally, a decline in the birthrate was considered a prerequisite for successful escape from the trap of a low income equilibrium. In recent years it is understood more positively as a factor in the promotion of economic growth. A typical example of such a line of thought is the concept of the “demographic dividend,”³⁷ which seeks to explain the relationship between economic development and population in developing countries, not from the viewpoint of population size or the rate of population increase, but rather from the viewpoint of the ratio of the dependent population to the productive-age population and other dynamics of the demographic structure.

There has already been some discussion on the demographic dividend in the preceding Chapter. The process by which a decline in the birthrate promotes economic development, based on the principles of “growth accounting,” will now be reviewed.

In growth accounting, long-term economic growth (“Q”) is generally expressed by the following formula:

$$Q=F(L,K,T)$$

whereas, “L,” “K” and “T” represent the labor input, capital stock and technology level (total factor productivity), respectively. According to the theory of the demographic dividend, a decline in the birthrate in a developing country has positive effects on each of the three factors. Let us examine these one by one.

Firstly, let us take a look at the relationship between a drop in the birthrate and the labor input. A decline in the birthrate lowers the ratio of the young dependent population and raises the ratio of the population engaged in economic activities (productive-age population). The labor input (“L”), in the strict sense of the term, is a result of the working population multiplied by the number of hours worked; but in the long term it is dependent on changes in the size of the working population. While the entirety of the productive-age population may not necessarily be engaged in labor, changes in the productive-age population can be safely regarded as being reflected in changes in the working population since the ratio of the working population to the productive-age population (labor participation ratio) of a country hardly fluctuates. In developing countries, therefore, a decline in the birthrate increases the “potential” for a higher labor input for a certain period of time. It must be remembered, however, that success in converting an increased productive-age population into an increased labor input will be heavily dependent on the presence of an effective labor market and an efficient industrial structure.

The second factor is the relationship between the birthrate and the capital stock. The capital stock is the cumulative sum of investments that contribute to production, and its source is savings. Although capital may be financed by inflows of foreign capital, developing countries generally have only a feeble base from which to receive foreign capital and capital formation has to depend on domestic savings. A decline in the birthrate increases the ratio of the productive-age population, and provided that employment opportunities are sufficiently available, the increased ratio of the productive-age population will translate itself into an increased ratio of the income-earning population, and hence an increased ratio of the saving population. Thus, the savings rate of the society, or the domestic savings rate, is likely to increase. At the household level, too, a reduced birthrate results in fewer expenditures for childrearing and a higher disposable income, raising the possibility of realizing a higher household savings rate. It should be remembered however that the presence of developed financial systems is essential to orient these domestic savings towards effective investments.

³⁷ For the basic concept of the demographic dividend, see Bloom and Williamson (1998). In this book, the authors write that one-third of East Asia’s high growth can be explained by changes in the demographic structure due to declining birthrate.

Thirdly, how does a decline in the birthrate affect labor productivity? A decline in the ratio of the young dependent population to productive-age population in a society provides a basis for the government and households to spend more on education and medical care per child than before. The World Bank (1993) cites the spread of primary education as a factor in East Asia's high growth. It is obvious that the decline in the birthrate was a major contributing factor to this, in addition to the serious efforts of the governments to improve education. The decline in the birthrate has contributed to the improvement of workers health and a consequent improvement in worker productivity, since more could be spent on health care and hygiene per worker. With the advancement of economic growth, the amount of domestic savings becomes larger and these funds can be directed to a wider range of investment; the destinations of investments that were confined to construction and capital equipment are now broadened to include research and development, bringing about further improvements in worker productivity.

Fig. 3-1 illustrates the relationship between the benefits of the demographic dividend and the economic growth rate, the young dependent population, the productive-age population and the elderly dependent population.

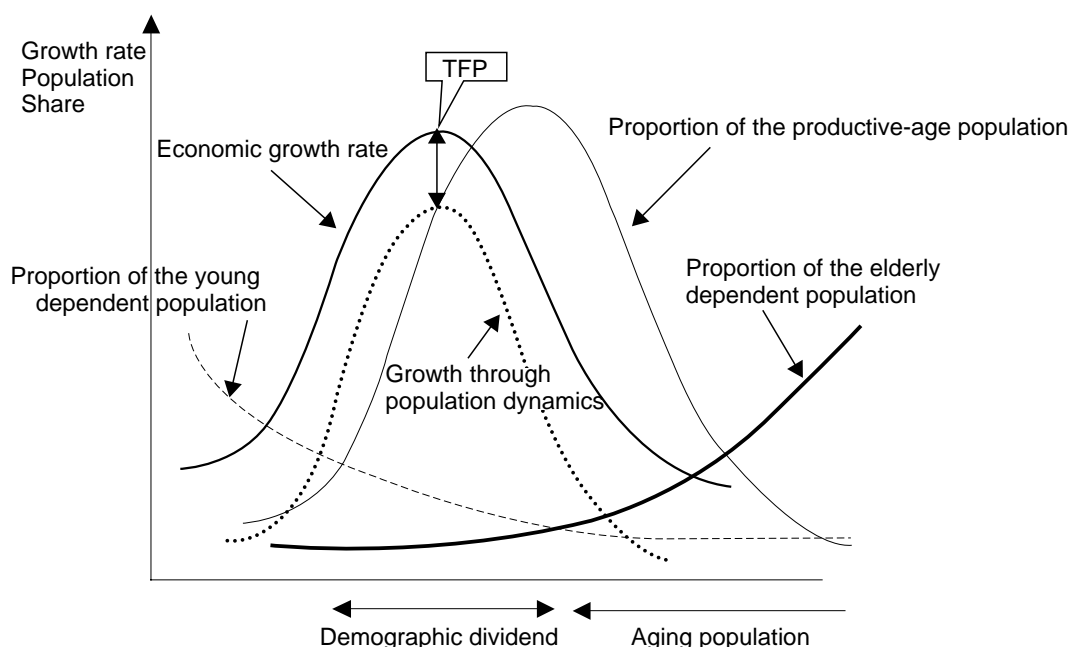
It should be noted that the benefits of the demographic dividend change over time. There is a major difference, in particular, between the first half and the second half of the demographic dividend period.

In the first half, the positive effects of a reduced young population that is brought about by the decline in the birthrate operate strongly, and the growth potential rises with time.

Then the demographic dividend peaks out. While there are no established opinions about the timing of this peak, it would be correct to say that the peak is reached some time before the productive-age population reaches its peak. The economic growth rate is quite dependent on the rate of increase in the productive-age population.

In the second half of the demographic dividend period, the rate of increase in the labor input slows down and the savings rate also goes down. The growth potential decreases with time. Moreover, the growth potential could be brought down further, if no appropriate policy measures are taken to address the issue of the aging society since its arrival means old age pension, health care and other financial burdens. When the

Figure 3-1 Effects of the demographic dividend and the aging population on economic growth



Source: Author

demographic dividend period is over, the country enters the stage of an aging population.

An overview of the benefits of the demographic dividend on the economic growth of Japan and Taiwan is given here for reference purposes. Japan's period of the demographic dividend can be considered to have begun in 1955 and peaked out in 1970. The ratio of the young dependent population decreased from 33.6% to 24.0% during that period while the ratio of the productive-age population rose from 59.6% to 68.9%. The first half of Taiwan's period of the demographic dividend was from 1965 to 1985, during which the ratio of the young dependent population fell from 44.9% to 29.6% while the ratio of the productive-age population grew from 52.5% to 65.4%. The average annual GDP growth rates for these periods were very high: 9.3% for Japan and 8.7% for Taiwan.³⁸

Subsequently, the rate of increase in the productive-age population peaked out and both countries entered the second half of the demographic dividend period. In Japan and Taiwan, the growth rate clearly began to slow down when the rate of increase in the productive-age population began to fall to below 1.5%. The second half period was 1970 -1994 in Japan, during which the average annual GDP growth fell to 3.2%. Likewise, Taiwan's average annual GDP growth fell to 3.4% for the period 1998-2004. The domestic savings rate fell from a peak of 34.0% (elderly ratio 12.5%) in 1991 to 26.1% (elderly ratio at 17.7%) in 2001 in Japan. In Taiwan, likewise, it fell from a peak of 38.5% (5.1%) in 1987 to 23.8% (8.6%) in 2001.

Attention should be paid, however, to the fact that the demographic dividend is only an indicator of the "growth potential" that could be brought about by the changes in the demographic structure. The actual benefits of the demographic dividend depend on the policies and development stage of the individual countries. Even if the productive-age population increases, for instance, absence of a developed labor market would prevent full utilization of the increased workforce for the purpose of economic growth. Even if the domestic savings ratio goes up, the absence of developed financial systems would preclude efficient fund allocation. In short, the benefits of the demographic dividend are largely dependent upon the industrial policy, labor policy and monetary policy of the individual countries. The benefits can vary, depending also upon the elements of total factor productivity, including the education system as it relates to human resources development; various conditions affecting private-sector R&D activities; infrastructure such as ports and harbors, electricity, road and water services; and the legal and other systems.

Countries at the stage of the demographic dividend

How many countries are thus currently at the stage of the demographic dividend? Since no established definition exists for the demographic dividend period (starting point, peak and endpoint), the "demographic dividend period" will be defined here as the period during which the productive-age population is at least twice as large as the dependent population. In other words, a country shall be deemed to be at the stage of the demographic dividend if its productive-age population is at least two-thirds of its total population.

In 1970, there were only four such countries according to the UN population estimate. The number of such countries increased to 13 in 1980, and then to 49 in 2000. The number of countries is projected to keep increasing to 75 in 2015, and then fall to 46 in 2035 and to 41 in 2050 (see Table 3-2).

With respect to the income levels of these countries, 33 of the 49 countries in 2000 were developed countries. However, the number of developing countries that are at the stage of the demographic dividend has been increasing since 1980. It was five in 1980 and then went up to 16 in 2000 and is expected to reach 51 by 2020.³⁹

Many developing countries are undergoing the period of the demographic dividend while their income levels are still low. The 2005 list of countries at the demographic dividend stage includes the following

³⁸ These periods represent the eras of high economic growth of the two countries.

³⁹ Not all developing countries experience a demographic dividend due to a decline in the birthrate. For example, Samoa, Ecuador, Dominican Republic, and Paraguay have been experiencing a slow decline in the birthrate and are heading toward the aging population stage without going through the demographic dividend stage.

Table 3-2 Distribution of the demographic dividend

	Total 192	Developed countries 45	Developing countries 147	Africa 50	Asia 50	Europe 40	Latin America and the Caribbean 35	Northern America 2	Oceania 11
1950	13	9	4	1	2	9	0	0	1
1955	5	5	0	0	0	5	0	0	0
1960	5	4	1	1	0	4	0	0	0
1965	3	3	0	0	1	2	0	0	0
1970	4	4	0	0	0	3	0	0	0
1975	7	6	1	0	2	5	0	0	0
1980	13	8	5	0	6	6	0	1	0
1985	25	20	5	0	6	18	0	1	0
1990	29	20	9	0	9	17	1	1	1
1995	37	24	13	1	12	22	1	1	0
2000	49	33	16	1	13	31	3	1	0
2005	60	33	27	2	19	30	5	2	2
2010	71	33	38	3	25	29	8	2	4
2015	75	27	48	4	29	25	12	1	4
2020	67	16	51	5	30	16	13	0	3
2025	57	7	50	5	30	7	12	0	3
2030	49	4	45	5	28	4	8	0	4
2035	46	1	45	6	28	1	8	0	3
2040	51	1	50	10	30	1	7	0	3
2045	45	0	45	13	21	0	7	0	4
2050	41	0	41	16	16	0	6	0	3

Source: UN World Population Prospects

countries in the ascending order of their 2000 per capita GDP: Azerbaijan (US\$422), Georgia (US\$470), China (US\$825), Ukraine (US\$896), Sri Lanka (US\$902), Armenia (US\$976), Romania (US\$1,321), Belarus (US\$1,429), Kazakhstan (US\$1,496), Bosnia (US\$1,526), Brazil (US\$1,539), Iran (US\$1,658), Lithuania (US\$2,165), Tunisia (US\$2,470), Russia (US\$2,471), Macedonia (US\$2,535), Latvia (US\$2,603), Thailand (US\$2,824), Lebanon (US\$2,891), Poland (US\$3,678) and Mauritius (US\$4,104) (see Annex 1).

Needless to say, the per capita GDP does not say everything about the living conditions of a country. However, it is also evident that countries that are at the demographic dividend stage while their per capita income is less than US\$5,000 will move into the stage of an aging population with a not very high income since the demographic dividend will be over by then.

Let us, for example, compare Thailand and China with Japan and Taiwan. Japan's period of the demographic dividend is believed to have ended around 1990. Japan's per capita GDP in that year was US\$27,000 on a nominal basis. Taiwan is expected to lose the benefits of the demographic dividend around 2015, while it had already reached a per capita GDP of US\$14,233 by 2004. In contrast, China and Thailand that are expected to see their periods of the demographic dividend terminate about the same time as Taiwan, had a GDP of US\$1,269 and US\$2,766, respectively, in 2004. It will be extremely difficult for China to reach even US\$3,000 before the termination of its demographic dividend period.

Accordingly, it is very important for low-income countries at the stage of the demographic dividend to make maximum use of the dividend benefits and prepare their socioeconomic systems for the period of an aging population that is to come next. Of particular importance will be a development plan that fully takes into account the upcoming changes in the demographic structure. Prolongation of the benefits of the demographic dividend will certainly alleviate the burden of supporting an aging society. The demographic dividend period will now be divided into two halves, and the characteristics of each half illustrated with a

discussion of the kinds of policy measures and overseas assistance that would be effective in maximizing the benefits of the demographic dividend.

3-3-2 Characteristics and measures in the 1st half of demographic dividend period

In the first half of the demographic dividend period, increased labor inputs and increased domestic savings can be expected. Measures to take the best advantage of the demographic dividend would include: improvement of industrial technology and development, accumulation of human capital through education, promotion of foreign investment inflows, modernization of financial systems to improve capital efficiency, improvement of the infrastructure, development of the legal and other systems, efficient running of government administrative agencies, and construction of industrial sites. Here three issues will be touched on: utilization of the young workforce, improvement of the monetary/financial base, and the promotion of primary education.

(1) Increase in the young workforce

In the first half of the demographic dividend period, young people dominate the working population. This suggests that labor-intensive industries have a good chance of growth. Taiwan indeed developed a policy of attracting foreign capital to take advantage of its abundant young workforce and promote industrialization, leveraging on export promotion. In Asia, foreign enterprises moved their production base from one country to another seeking lower-cost labor. It is interesting to note that the host countries had an abundant young workforce, that is, the countries were in the first half of the demographic dividend period. It is also worth noting that the transfer of unsophisticated technologies was relatively easy, since these countries were aware of the importance of education and had a good primary education system. Furthermore, they gave priority to improvement of the infrastructure to support export industries. These policy experiences should serve as good precedents for those developing countries that are entering the demographic dividend period, since these policies are believed to have been effective in amplifying the benefits of the demographic dividend.

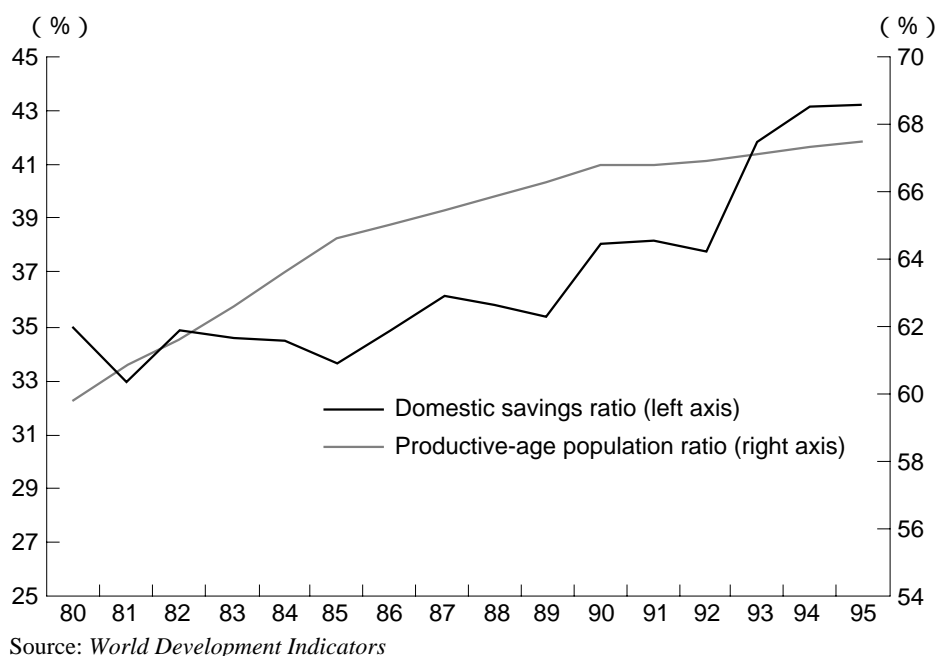
Japan has provided assistance to its East Asian neighbors particularly in the fields of transportation, energy, information, communications, the living environment and other infrastructure. This assistance had the aim of improving the trade and investment climate that would attract private-sector investment and foster private-sector activities in general. It is fair to come to the conclusion that this type of assistance by Japan contributed a great deal to absorbing the young workforce in the successful industrialization of these countries.

(2) Improvement of monetary/financial systems

During the first stage of the demographic dividend period, the domestic savings ratio to the GDP tends to increase. Developing countries generally suffer from a shortfall in savings for investment, but they might be able to improve the international balance of payments by implementing policies that would encourage higher levels of domestic savings in the demographic dividend period. Fig. 3-2 shows the evolution of the productive-age population ratio and the domestic savings ratio in China. It can be seen that the domestic savings ratio increased rapidly with the rise in the productive-age population ratio.

The rising level of the savings ratio, however, is influenced by the rate of expansion in employment opportunities, the degree of income distribution, changes in consumption patterns, the availability of credible financial institutions and other factors. The existence of efficient financial institutions is particularly indispensable for the effective utilization of domestic savings accumulated during the demographic dividend period and converting it into economic development. Developing countries face a number of impediments to the mobilization of savings through financial institutions and to make effective capital allocations, since the financial institutions are not well established and the pertinent infrastructure is

Figure 3-2 Productive-age population ratio and the domestic savings ratio (1980-1995) (China)



often not ready.

In recent years, Japan has extended various forms of “software-type,” or non-physical assistance, including stabilization of the macro economy and various structural reforms such as the reform of the financial sector, reform of state-run enterprises, and rationalization of public finance management. To accomplish effective assistance for countries in the first half of the demographic dividend period, emphasis should perhaps be placed more on basic institutional fields such as reinforcement of monitoring systems to ensure that state-owned banks and public financial institutions do not distort fund allocations, the solidification of ownership in private companies (SMEs (Small and Medium Enterprises) as well as large corporations) to allow for smooth fund procurement, and the establishment of effective systems for providing mortgages and for debt collection.

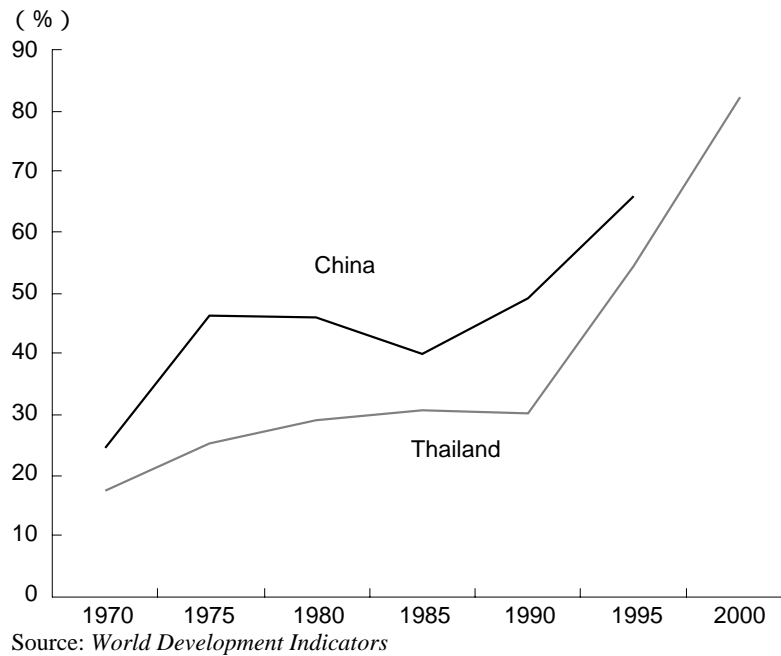
(3) Improvement of primary and secondary education

As discussed earlier, countries at the stage of the demographic dividend can afford to spend more on education per child, since the young dependent population ratio drops quickly. Developing countries should not miss this opportunity. As the World Bank (1993) points out, one of the reasons for the high growth of East Asia was the strong primary education sector. For example, literacy in Thailand improved from 87.2% for males and 70.3% for females in 1975 to 92.3% and 84.0%, respectively, in 1985. In the same ten-year period, the primary enrollment ratio also improved from 87.0% for boys and 80.0% for girls to 100.0% and 97.0%, respectively.

Overseas assistance is believed to play a very important role in this respect. In 2002, Japan announced an initiative called the BEGIN (Basic Education for Growth Initiative) that provides for ODA worth more than 250 billion yen to educational programs in low-income countries over a five-year period.⁴⁰ It is hoped that assistance such as this will encourage the recipient governments to redouble their efforts for the betterment of education. Once the benefits of the demographic dividend can be realized, it is possible to initiate a virtuous cycle of resulting economic growth, further raising the school enrollment ratio and

⁴⁰ Ministry of Foreign Affairs (2005)

Figure 3-3 Secondary school enrollment ratio



education levels. Fig. 3-3 shows the secondary enrollment ratios for China and Thailand. The secondary school enrollment ratios have risen rapidly since 1990.

(4) Labor productivity improvements through the health and medical care systems

Many of the countries in the first half of demographic dividend period are also in the transitory phase of shifting from a public health structure characterized by infectious diseases to one characterized by chronic diseases. Together with investment in education, health and medical care systems to prevent diseases make a positive contribution to human resources development and help improve labor productivity. For countries at this stage, effective assistance should be designed from the viewpoint of providing “primary health care” to extend basic health and medical care services to a large number of people through the establishment of public hygiene programs. Capacity development of health and medical personnel and improvement of the infrastructure for insured medical services will be important. However, health and medical care systems (should be structured in a way that is compatible with the realities of the country. Hayami (2000), for example, points out the risk that the “Prevalence of humanism and human rights ideas has led to the introduction of labor unions, minimum wages and other labor laws and welfare systems in developing countries, even though those laws and systems were established in developed countries only after the achievement of a good deal of economic progress that is yet to be achieved in today’s developing countries. This trend pushed up labor costs artificially despite the presence of surplus labor and induced the introduction of labor-saving technologies, which in turn aggravated the surplus labor problem.”⁴¹ Particular attention should be paid to such a risk when the developing country is in the phase of a rapid increase in its productive-age population.

⁴¹ Hayami (2000) p.30

3-3-3 Characteristics and measures in the second half of demographic dividend period ⁴²

In the second half of the demographic dividend period, the slowdown in the rate of increase in the productive-age population and in the domestic savings ratio brings down the growth potential. In addition, the burden of an aging population increases over time. As we will see below, the conditions for sustained economic growth are tougher for developing countries than they were for the developed countries.

(1) Slowdown in the rate of increase in the productive-age population

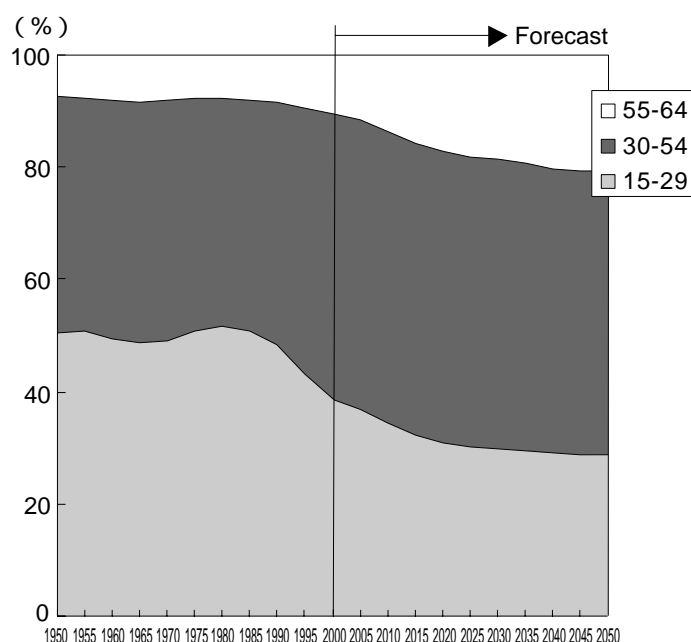
Assuming that the contribution of technology to economic growth is at a constant level, as the economic growth rate is a function of increases or decreases with the changes in the labor force and capital stock; the economic growth rate goes down with a decline in the rate of increase in the labor force (rate of increase of the productive-age population).

In this paper the demographic dividend period is defined as the time when the productive-age population is at least two-thirds of the total population. If this definition holds, it can be said that the growth potential diminishes considerably in the last ten years of the dividend period. Japan's average annual growth, for instance, marked a significant drop from the 4.1% of the period 1980-1990 to 1.4% for the period 1990-2000. Japan is one of the many countries that have already entered the stage of an aging society (the elderly population ratio being 14% or higher) in the second half of the demographic dividend period. Among developed countries, these include Japan, Denmark, Austria, Sweden, Germany, Finland and Italy. Among the developing countries they include Georgia, China, Romania, Bosnia, Bulgaria, Lithuania, Latvia, Poland, Estonia and Hungary. In such developing countries, the benefits of the demographic dividend could be depleted by the burden of an aging society (see Annex 1).

In the second half of the demographic dividend period and the initial part of the population aging period, policies to encourage the participation of females and the elderly in the labor market have particular importance. They will not only increase the size of the labor force; increased participation of the elderly in work opportunities will reduce the pressure of an aging society on the economy and the society.

It should be pointed out here that the aging of the labor force is a major challenge for the second half

Figure 3-4 Composition of Thailand's productive-age population



Source: UN World Population Prospects

⁴² Recently, the period of diminishing demographic dividend is sometimes called the period of "demographic onus."

of the demographic dividend period. If we call the population aged 15-29 years the “young working population,” those 30-54 years old the “middle-aged working population” and those 55-64 years the “elderly working population,” then the proportion of the young working population in China’s total productive-age population is expected to change from 33.7% in 2005 to 26.4% in 2030, the middle-aged working population from 55.2% to 50.5%, and the elderly working population from 11.1% to 23.1%. Likewise, Thailand’s young working population is expected to change from 36.6% to 29.6%, the middle-aged working population from 52.0% to 51.9%, and the elderly working population from 11.4% to 18.4% (Fig. 3-4). China and Thailand have expanded exports of labor-intensive products in the first half of demographic dividend period, capitalizing on their comparative advantage in the abundance of the young labor force that was relatively low cost and diligent. The aging of the labor force could mean the loss of this competitive advantage in labor-intensive industries.

The government leaders of China and Thailand, of course, have implemented policies to increase international competitiveness by promoting a shift of the industrial structure from a labor-intensive one to a capital-intensive and further to a knowledge-intensive one. However, the measures to raise the educational standards, which are the key to improved labor productivity, are directed mainly towards the young generation; postwar baby-boomers and other middle-aged workers are being left out.

To the extent that the population structure has a major cluster in the middle-aged segment, policy measures to raise the productivity of this group are essential to achieving sustained economic growth. This does not only mean improved productivity at the national level, but also helps reduce the burden of an aging society by expanding job opportunities for the middle-aged.

For countries like China and Thailand, however, it is not an easy task to raise the productivity of middle-aged workers or to provide enhanced job opportunities for them. Table 3-3 shows the proportion of the working population engaged in agriculture, forestry and fishery of the total working population by age groups for China and Thailand (year 2000) in comparison with Japan (year 1980). While the proportion of people working in primary industry is low for the young age groups for all countries, China and Thailand have a higher proportion of primary industry workers than in Japan, and this is particularly so for the baby-boomers and other middle-aged groups.

With regard to individuals in higher education, more of the young age groups have received higher education than the older age groups, but the overall level is still very low (see Table 3-4). Most of the baby-boomers and other middle-aged groups only finished elementary or junior high school.

Table 3-3 Proportion of the labor population in agriculture, forestry and fishery

(%)

Age group	Japan (1980)	China (2000)	Thailand (2000)
25 - 29	5.4	56.2	46.5
30 - 34	6.9	60.5	49.7
35 - 39	10.6	59.7	50.2
40 - 44	14.7	61.0	51.8
45 - 49	18.9	68.3	56.7
50 - 54	22.0	74.9	61.5
55 - 59	25.5	81.5	66.9
60 - 64	29.9	89.0	74.0
65 - 69	34.8	92.9	77.2

Source: Japan, 1980 National Census;
China, Chinese Population Report 2000;
Thailand, The 2000 Population and Housing Census

Table 3-4 Final education received for Japan, China and Thailand by age group

(%)

Age group	Japan	China			Thailand		
	College/university/ graduate school	Elementary school	Junior high school	College/university/ graduate school	Elementary school	Junior high school	College/university/ graduate school
25 - 29	17.7	24.0	52.3	1.9	53.4	26.2	4.5
30 - 34	14.4	29.1	50.3	1.8	60.4	22.0	3.7
35 - 39	11.2	25.2	47.2	1.7	64.4	17.0	3.8
40 - 44	9.0	32.5	36.7	1.0	68.8	13.2	2.2
45 - 49	7.8	45.2	32.1	0.8	75.1	8.9	1.5
50 - 54	5.1	52.0	24.6	0.8	75.9	8.9	1.1
55 - 59	3.5	47.4	21.8	1.4	75.6	7.7	1.0
60 - 64	2.5	45.0	13.6	1.7	74.6	4.6	0.8
65 - 69	2.4	33.0	7.5	0.7	74.0	3.5	0.5

Source: Japan, 1980 National Census; China, Chinese Population Report 2000; Thailand, The 2000 Population and Housing Census

In summary, many of the baby-boomers and other middle-aged population groups have remained in the agricultural sector without being absorbed into the industrial sector even during the demographic dividend period and could not gain access to a good education. Even though the educational level appears to have risen on a national basis as the fruit of economic growth in the demographic dividend period, attention must be paid to the differences according to age, sector and region.

As has been mentioned before, China and Thailand are strengthening their higher education system with a view to converting the industrial structure to one that is based on knowledge, but the middle-aged workers in primary industries have been left out of this process. As agriculture, forestry and fishery principally involve manual labor, the job becomes increasingly harder for the middle-aged as they get older. They will also find it difficult to get a new job since they have never worked in the modern industrial sector and lack the necessary technical skills or expertise. One must not overlook the fact that this generation is getting old very quickly.

To promote the employment and re-training of the elderly in the society, efforts are needed by both the public and private sectors to enhance opportunities for continuing education and other forms of re-education. It will be necessary to already institutionalize and implement such re-education systems in the first half of the demographic dividend period, since they should be understood as a means to help reduce the burden of the aging society to come.

(2) Decline in domestic savings

A decline in domestic savings is quite likely in the second half of the demographic dividend period. As will be discussed in more detail in Chapter 5, the "life cycle hypothesis" suggests that the elderly who have fewer chances to earn money have to withdraw their savings for living and the domestic savings ratio of the society as a whole decreases. Some argue, however, that the complete depletion of savings for personal consumption as envisaged by the life cycle hypothesis represents the most ideal case, and that in reality many people leave some of their savings as an inheritance to their offspring. Others also argue that the decline in the savings rate due to aging is more moderate than the change in the population structure.

In developing countries, nonetheless, the speed of the aging of the population is much faster than in the developed countries and a rapid decline of overall savings ratio is inevitable. Furthermore, the life cycle hypothesis was derived from the experience of the developed countries; it is not very realistic to assume that the elderly in developing countries have enough savings to support their own living. If the elderly do not have enough savings of their own to support their personal consumption, a part of the income of the productive-age population (the active generation) must be transferred to supporting the living costs of the

elderly. In such cases, the domestic savings ratio could fall more rapidly than the changes in the population structure. It should be added that the consumption patterns of the urban population in the developing countries are quite similar to those of the developed countries. We could observe cases in which the increase in income does not lead to an increase in savings, due to the rapid increase in personal consumption.⁴³

Today money flows around the world at incredible speeds. Foreign capital can be mobilized through attractive policy measures or improved infrastructure for financial markets. The contribution of domestic savings to economic growth may have been reduced, accordingly. However, the enactment and revision of laws and codes of conduct, establishment of information disclosure systems to ensure transparency, and reinforcement of supervision and monitoring are required to introduce foreign capital effectively. Such infrastructure is not very well established in developing countries and foreign aid continues to have an important role to play in this respect.

As the IMF (2004) notes, many developed countries are expected to face a deterioration in their balance of payments along with the aging of the population. This could make it more difficult for developing countries to take in foreign capital. They should place priority on raising their own domestic savings ratio and maintaining it at a high level. In addition to the improvement of savings systems (old-age pension systems) for the arrival of the aging society, policy measures to encourage and educate citizens to accumulate savings for their own living will be quite important.

(3) Infrastructure improvements in anticipation of the aging society

In the second half of demographic dividend period, infrastructure improvement projects in developing countries should be designed and promoted with consideration not only for economic efficiency, but also to the arrival of the aging society. Construction of apartment houses for low-income families, for example, will not only improve the housing conditions of workers and raise the labor productivity, but also lead to a saving in housing costs when the graying society arrives. Such apartment houses should meet the needs of a graying society by incorporating barrier-free design and other measures friendly to the elderly.

Japan is addressing this issue quite progressively through the enactment of the “Law concerning the promotion of the facilitation of the mobility of the elderly, the handicapped and the like by means of public transportation” better known as the Barrier-free Transportation Law⁴⁴ and the “Law concerning the promotion of specified buildings that can be smoothly used by the elderly, the handicapped and the like” better known as the Warm-hearted Building Law.⁴⁵ Efforts are being made to build towns and cities that are based on the concept of universal design “free and easy to use anywhere, for anybody,” and also friendly towards those involved in childrearing. Overseas assistance in this direction of infrastructure design will become important in the future.

⁴³ In Thailand household savings are on a declining trend. The government is considering measures to encourage savings through bank deposits, national bonds, life insurance, and an old-age pension system. The Thai central bank is looking towards Japan’s postal savings system with strong interest (based on an interview with a Thai central bank official). There is a campaign to save 10 baht a month to address the aging population problem on a community level (based on an interview at NESDB).

⁴⁴ The law provides for accessibility improvements related to passenger facilities, train cars, adjacent roads, station plazas, etc.

⁴⁵ The law provides for handrails, wide corridors, elimination of steps, etc.

3-4 Economic Development and Overseas Assistance in the Aging Population Period

3-4-1 Population aging in developing countries

It is not possible to draw a clear line between the periods of the demographic dividend and of the aging population. As has been mentioned already, some countries are experiencing the periods of demographic dividend and of the aging population simultaneously. In the aging population stage, the virtuous circle of the demographic dividend period runs in the opposite direction. The labor force is reduced, as the baby-boomers reach retirement age. The savings ratio drops because the elderly have only a small income and withdraw their savings to maintain their lives. These actions work to suppress economic growth. This corresponds to the challenges and policy measures that apply to the second half of the demographic dividend period.

Let us first take a look at the current situation of aging populations in the world. The United Nations call a society with an elderly ratio (percentage of the population aged 65 years and older in the total population) of at least 7% “an aging society” and a society with an elderly ratio of at least 14% “an aged society.” Table 3-5 and Table 3-6 show the number of countries falling, or expected to fall, into the category of an aging society according to the UN population estimate. Above all, the advancing trend of the aging of the global population can be easily observed. There were 39 countries that had reached the aging society stage by 1950. The number increased to 52 in 1980, and to 64 in 2000. This trend is projected to continue, hitting 110 countries in 2025 and 152 in 2050. And this is not taking place in developed countries alone. There were three developing countries that reached the stage of an aging society in 1965. The number

Table 3-5 Countries/economies with an elderly dependent population accounting for 7% or more of the total population

	Total 192	Developed countries 54	Developing countries 147		Africa 54	Asia 50	Europe 40	Latin America and the Caribbean 35	Northern America 2	Oceania 11
				Of which LLDCs						
1950	39	31	8	1	2	4	27	2	2	2
1955	39	32	7	1	2	4	28	1	2	2
1960	38	34	4	1	1	2	30	1	2	2
1965	40	37	3	0	0	1	33	2	2	2
1970	44	40	4	0	0	3	35	2	2	2
1975	46	40	6	0	0	4	35	3	2	2
1980	52	41	11	0	0	5	36	7	2	2
1985	54	41	13	0	0	5	36	9	2	2
1990	56	42	14	0	0	5	37	10	2	2
1995	59	43	16	0	0	7	38	10	2	2
2000	64	43	21	0	0	9	39	12	2	2
2005	71	43	28	0	0	15	39	13	2	2
2010	75	43	32	0	2	15	39	14	2	3
2015	83	43	40	1	2	15	39	21	2	4
2020	97	43	54	2	4	20	39	26	2	6
2025	110	43	67	2	8	26	39	28	2	7
2030	120	43	77	3	8	32	39	31	2	8
2035	132	44	88	5	9	40	40	33	2	8
2040	139	44	95	11	11	43	40	34	2	9
2045	149	44	105	17	16	46	40	35	2	10
2050	152	43	109	19	19	47	39	34	2	11

Source: UN World Population Prospects

Table 3-6 Countries/economies with the elderly dependent population accounting for 14% or more of the total population

	Total 192	Developed countries 54	Developing countries 147		Africa 54	Asia 50	Europe 40	Latin America and the Caribbean 35	Northern America 2	Oceania 11
				Of which LLDCs						
1950	0	0	0	0	0	0	0	0	0	0
1955	0	0	0	0	0	0	0	0	0	0
1960	0	0	0	0	0	0	0	0	0	0
1965	0	0	0	0	0	0	0	0	0	0
1970	1	1	0	0	0	0	1	0	0	0
1975	4	4	0	0	0	0	4	0	0	0
1980	8	8	0	0	0	0	8	0	0	0
1985	8	8	0	0	0	0	8	0	0	0
1990	10	10	0	0	0	0	10	0	0	0
1995	18	18	0	0	0	1	17	0	0	0
2000	23	23	0	0	0	1	22	0	0	0
2005	31	30	1	0	0	2	29	0	0	0
2010	33	31	2	0	0	2	29	1	1	0
2015	45	38	7	0	0	4	33	4	2	2
2020	55	41	14	0	0	7	36	8	2	2
2025	60	43	17	0	0	8	38	10	2	2
2030	66	44	22	0	1	12	39	10	2	2
2035	83	44	39	0	2	17	39	18	2	5
2040	92	44	48	1	3	20	39	23	2	5
2045	106	44	62	3	5	27	39	26	2	7
2050	117	44	73	3	6	34	39	28	2	8

Source: UN World Population Prospects

increased to 11 in 1980, and to 21 in 2000. It is expected to hit 67 in 2025, and 109 in 2050 (see Table 3-5).

The first country to become an aged society was Austria. The number of aged societies increased to 11 in 1990, and to 23 in 2000. At that point in time, all were developed countries and the problem of an aged society was unique to developed countries.

However, the number of countries entering the stage of an aged society will increase rapidly to 60 in 2025, and to 117 in 2050. Among the developing countries, Georgia became an aged society in 2005. There will be 17 developing countries that come under the category of an aged society in 2025 and 73 in 2050 (see Table 3-6).

These developing countries will be entering an aging or aged society with less per capita income than the developed countries had when their populations shifted to new stages. It is possible to make a simulation of the level of per capita income that developing countries will have when they move into an aging and aged society, assuming that their per capita income (in terms of real 1995 US dollars) kept increasing at an annual rate of 3% from the year 2000 onward.

Japan, for comparison purposes, saw its elderly ratio exceed the 7% mark in 1970, in which year its per capita GDP was US\$20,465. The 14% mark was crossed in 1994 with a per capita income of US\$42,186. Thailand and China are two East Asian countries whose societies are rapidly aging. The per capita GDP in 2005 was US\$2,728 for Thailand and US\$1,728 for China. Thailand in 2005 and China in 2001 have entered into an aging society, and are projected to move to an aged society by 2027 and 2026, respectively. According to our simulation, Thailand's per capita GDP will be US\$6,273 in 2027 when the country is expected to become an aged society. Even if an annual growth rate of 5% is used for the simulation instead of 3%, the per capita GDP will be US\$10,543. For China, the corresponding values will be US\$1,779 for the 3% growth case, US\$2,933 for 5% and US\$5,408 for 7% annual growth.

Table 3-7 Rate of the aging of the population in East Asia (medium variant estimate)

(Year)

	Elderly ratio 7%	Elderly ratio 14%	Doubling period
Japan	1970	1994	24
Korea	1999	2017	18
Hong Kong	1983	2014	31
Singapore	2000	2016	16
Thailand	2005	2027	22
Malaysia	2019	2044	25
Indonesia	2019	2041	22
Philippines	2026	2049	23
China	2001	2026	25

Source: UN World Population Prospects

3-4-2 Rate of aging

Developing countries have to enter the stage of an aging population with a low income, since the rate of decline in their birthrate is so fast that population aging is progressing at an accelerated rate. Table 3-7 summarizes the rate of aging of the population in East Asian countries according to the UN population estimate. The aging rate is usually expressed by the number of years (doubling period) required to move from an aging and aged society. While it took Japan 24 years, Korea is expected to take 18 years and Singapore only 16 years. The doubling periods projected are 22 years for Thailand, 25 for Malaysia, 22 for Indonesia, 23 for the Philippines, and 25 for China. These four ASEAN countries and China are expected to enter an aged society at a rate comparable to that of Japan.⁴⁶

Entry into an aged society with a relatively low income means that the infrastructure to support the necessary medical and other care for the elderly may not be ready by then. In addressing the problems associated with an aging population, a major challenge is to upgrade the medical infrastructure and levels of public hygiene rather than to raise the income level.

3-4-3 Aging rate influenced by the decline in the birthrate

The projected rate of aging of the population reviewed above is based on the UN medium variant estimate that forecasts a global convergence of TFR at 1.85. Actually, the TFRs of Japan, Korea, Taiwan and Singapore are much lower than the projected convergence point, while those of Thailand and China are at this level today. It would be more realistic to assume that the TFRs of Thailand and China will go down further. If this is really the case, aging of the population in the two countries will progress at a faster rate than described above, and the available policy options will become less.

Countering the decline in the birthrate is essential to moderating the rate of population aging. In Japan various “countermeasures for a declining birthrate” have been implemented vigorously in recent years. In June 2004 the “General Principles for a Declining Birthrate Society” were promulgated, and in December of the same year, a “Childrearing Support Plan” was announced. The “Law for the promotion of measures to assist fostering of the next generation” was enacted in April 2005, and in October of that year the “Committee for the Promotion of Countermeasures against a Declining Birthrate” was inaugurated.

Unfortunately, the birthrate continues to fall, despite these efforts in Japan. However, a number of issues, problems and needs have been brought into relief, owing to the serious discussions. For example,

⁴⁶ Since the doubling period was 115 years for France, 85 for Sweden, 40 for Germany and 47 for the UK, aging of the Japanese population in 24 years is often referred to as unprecedented in the world. However, in the East Asian context, Japan is at the average level. Perhaps it would be more accurate to think in terms of an “East Asian aging model.”

there is today a much wider common understanding about the need for stronger economic support, improvement of the living environment in which to raise children safely, the construction of more childcare centers, and facilitation of reemployment. An OECD study has shown that countries with high female participation ratio in employment also have a high birthrate in recent years, reversing the trend of the past. This offers a new perspective that improvements in the work environment for females can counter the trend towards a declining birthrate.

A cautious attitude is required, however, as to the desirability of overseas assistance to deal with declining birthrates in developing countries. It is true that a decline in the birthrate is widely observed among developing countries. This must be a welcome trend in the developing countries in which a rapid increase in the population has acted as a hindrance to economic growth, since a decline in the birthrate reduces the burden shouldered by the economically active population. A number of developing countries are thus experiencing a drastic decline in their birthrate; China and Thailand, for instance, have birthrates lower than the replacement level. There are differing views, however, as to whether this trend of a declining birthrate is a problem that needs to be addressed.

Furthermore, the causes of the declining birthrate in developing countries might be different from those in developed countries, due to the difference in the stage of development. If so, countermeasures that are implemented in developed countries might not be effective in reversing the declining birthrate in developing countries. More studies and research are required in order to analyze the causes of the declining birthrate in developing countries.

3-5 Perspective of Social Security Systems in Developing Countries

All developing countries have in place several piecemeal policy measures for the elderly in the context of social development. For the future, however, there has arisen the need to formulate and implement policy measures to cope with problems of the aging society in line with the progress in the aging of the population. Measures for an aging society means here a comprehensive package of measures for the elderly, which must be formulated with due consideration to the country's economy, society and other aspects.

In the policy package, the social security system plays a pivotal role in coping with an aging society. It is evident that the kind of social security system to be designed in a developing country experiencing an aging population with a declining birthrate will have a strong impact not only on the life of the elderly, but also on the socioeconomic structure of the entire country. The paragraphs that follow will discuss, the phase of implementation of a social security system in developing countries, characteristics that are common to the social security systems of developing countries, and the future directions and challenges in the implementation of social security systems.

3-5-1 Economic progress and social security systems

The establishment of social security systems began in Western Europe against the background of structural changes in the entire economic system, namely, the advancement of industrialization in the latter half of the 18th century. Before industrialization, that is to say, in the agriculture-based society of Western Europe, the social security function was virtually played by mutual assistance in the agrarian community. In the course of economic growth led by industrialization, major changes occurred in the social structure including urbanization and an increase in the number of employed workers. A social security system that would supplement the traditional community-based mutual assistance came to be needed. This process is also true for Japan and for those developing countries that are undergoing a process of industrialization.

The social security systems of the developed countries today have the objective of assuring a healthy and secure life for the citizens. However, the major tasks of social security systems in developing countries are the prevention of poverty through social insurance and relief from poverty through public assistance.

For example, the major objective of health care insurance needed in a developing country is to reduce the risk of becoming poor due to injury or illness. Similarly, welfare service should focus on free-of-charge services to the poor.

3-5-2 Present situation and challenges of social security systems in developing countries

Social security systems differ from one country to another, reflecting the political regime, economic structure, and cultural/social background of the individual countries. However, all have been implemented and reformed in accordance with the country's economic progress, and it would be possible to make a rough classification of social security systems, according to the stage of economic development. Table 3-8 summarizes one such classification of social security systems in East Asia, according to the stage of economic development and to the characteristics of the population dynamics, building upon the work of Hiroi and Komamura ed. (2003).

Group 1 comprises countries that have a relatively high level of economic development, are experiencing a significantly declining birthrate, and are about to enter an aged society. In East Asia, Group 1 includes Korea, Singapore and Taiwan. Systems that offer universal or semi-universal benefits have already been established. Given the relatively high income levels, it would be more appropriate to understand the issue of the aging of the population of these countries, not as one of a developing country but rather as one similar to that of the developed countries. For instance, these countries are considering reforming the current system to re-distribute the burden sharing of the aging population.

Group 2 comprises countries that are on the way to industrialization, and are experiencing a declining birthrate, which is gradually raising the elderly ratio. In East Asia, the four ASEAN countries (Thailand, Malaysia, Philippines, and Indonesia) and China belong to this group.⁴⁷ In these countries, the social security system covers government employees, state-owned company employees and private company employees, but security systems for farmers and the self-employed, who together account for a large majority of the total population, are either non-existent or under development. In fact, the income level in these countries is quite low in comparison to that in Group 1, a fact that reduces the number of policy options for the establishment of a better social security system. The present study mainly deals with these countries in Group 2.

Group 3 consists of countries that are at the initial stage of economic growth and industrialization, and have population dynamics characterized by "high-birthrate/low-mortality" and an increasing population, although the birthrate is indeed declining. In East Asia, Group 3 includes Viet Nam, Laos, Cambodia, and Myanmar.⁴⁸ In most cases, their social security systems cover only a limited segment of the population including some government employees and state-owned company employees. An immediate challenge for these countries is implementation of a social security system to cover the employees in cities, which are steadily increasing in number.

⁴⁷ Hiroi and Komamura ed.(2003) argues that China should be treated separately because of its sheer size. Here it is included in Group 2 that represents the closest phase in terms of its present situation in relation to economic development, population dynamics and social security systems.

⁴⁸ Viet Nam is seeing its birthrate declining very rapidly. It is likely to move to Group 2 in the near future.

Table 3-8 Social security systems in East Asia

	Economic development stage	Population dynamics	Social security system	Basic infrastructure
Group 1 (Singapore, Taiwan, Korea)	Relatively high	Shift to the population aging period	Universal benefits	Established
Group 2 (Malaysia, Thailand, Philippines, Indonesia, China)	Industrialization in process	Demographic dividend period	Unavailable to farmers or the self-employed	Under development
Group 3 (Viet Nam, Laos, Cambodia, Myanmar)	Initial stage	Late population explosion period	Available to government employees and military personnel only	Not established

Source: Hiroi and Komamura ed. (2003)

3-5-3 Social factors requiring the implementation of a social security system

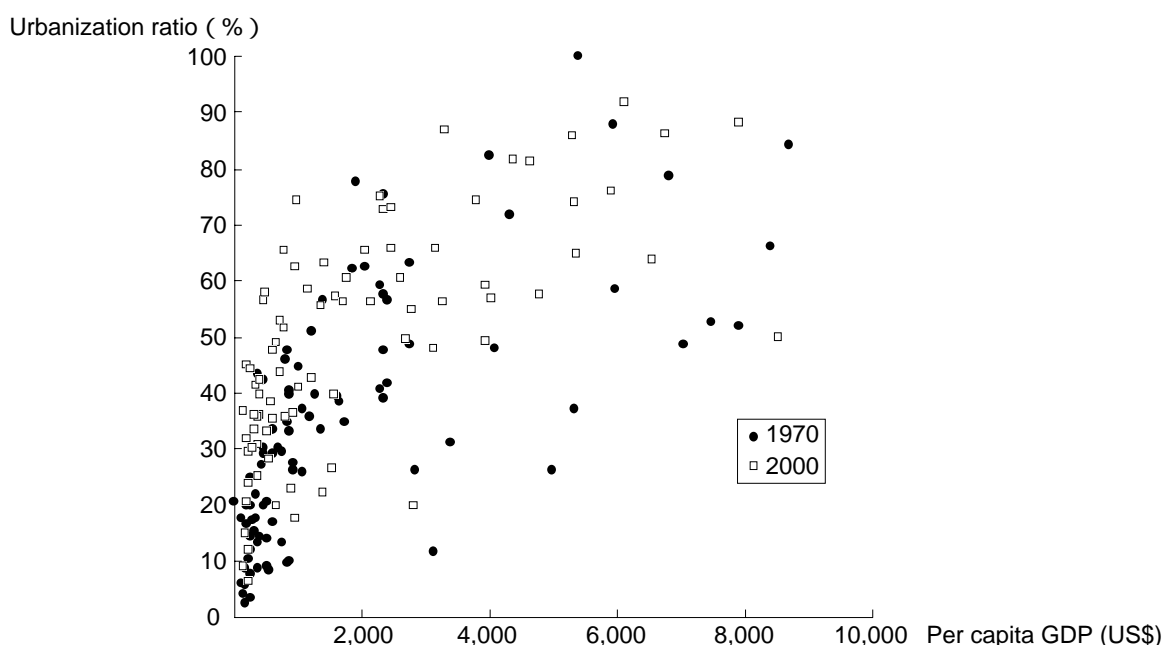
The countries of Group 2, the main target of the present study, are said to have achieved economic development through “compressed industrialization” with “compressed changes in the social structure.” Indeed, this is one of the major factors requiring the establishment of a social security system. Let us now review how urbanization and lifestyle changes have occurred.

(1) Progress of urbanization

Fig. 3-5 illustrates the relationship between income level and the urbanization ratio. When looking at the plots for the years 1970 and 2000, it is seen that the plots for 2000 are generally above those for 1970. This shows that urbanization in developing countries is outpacing income growth.

For instance, the urbanization rate in Thailand rose from 23.8% in 1975 to 31.1% in 2000. That of China also rose from 17.4% to 35.8% for the same period, even though internal migration of the workforce was tightly restricted. The urbanization process is expected to gain further momentum, reaching a rate of

Figure 3-5 Relationship between income level and urbanization ratio (1970/2000)



Source: *World Development Indicators*

43.3% in 2025 for Thailand and 60.5% for China.

In such rapidly expanding cities, it is unlikely that communities with a mutual assistance function will emerge. The capacity of existing urban communities to absorb new city dwellers is also quite limited. There are many city workers who no longer have hometowns to return to, and the number of such workers is clearly rising over time.

(2) Change in lifestyles

In parallel with urbanization, lifestyles in the developing countries are changing dramatically. The indications include the rise in the age of first marriage, late marriage, staying single, and the spread of the nuclear family.

The age of first marriage of Chinese women, for example, has risen steadily from 19.6 in 1960 to 23.1 in 1980, and to 24.2 in 2000. In Thailand, too, the corresponding age rose from 21.6 in 1960 to 24.0 in 2000. Also, China's late marriage rate (proportion of people getting married at age 23 years or older) rose to 11.0% in 1960, to 52.8% in 1980, and to 59.0% in 2000.

On the other hand, the changes in lifestyles are believed to be causing the changes in family features. In China, households with 1-3 family members accounted for 48.0% in 1995, but this share rose to 58.9% in 2004. In Shanghai, in particular, the figure has risen from 70.6% to 80.0%, suggesting the proliferation of nuclear families. In Thailand, the average family size per household fell from 5.1 persons in 1980 to 3.2 in 2004. It is believed that this spread of nuclear families is accompanied by an increase in the number of elderly people living away from their children or single elderly.⁴⁹

3-5-4 Political factors requiring the implementation of a social security system

The implementation of a social security system is also required in developing countries for political reasons. Economic growth widens the income gap, and the government is asked to put corrective measures in place. Political awareness has also increased, giving rise to claims for the right to live, social rights and protection for vulnerable groups. Here again, the cases of China and Thailand are taken up.

Reforms of China's social security system have been made in connection with the reform of state-owned enterprises. The discussion has focused on the question of the social security system financing for the employees of state-owned enterprises and on the issue of providing security to former employees of state-owned enterprises who were displaced in the reform process of state-owned enterprises. In recent years, however, social security systems are drawing increasingly greater attention as a means of addressing the politically and socially important problem of the rural-urban income divide that has emerged as a result of the reforms and the open door policy. Put differently, the Chinese government now recognizes the widened regional income gaps as a negative side of the reforms and the open door policy, and has begun to consider introducing a new social security system with universal coverage.

In this context, China's State Council presented the concept of "the vulnerable groups" in its political report to the Ninth National People's Congress in March 2002. At the 16th Communist Party Congress in November of the same year, Mr. Jiang Zemin, then Secretary General of the Chinese Communist Party, called a social security system "an important assurance for social stability and the long-term stability of the nation." Consequently, the new Constitution that was promulgated in March 2004 obligated the government to address the social security issue by clearly stating in Article 14 that "the State shall establish a sound social security system compatible with the level of economic development." It further mentioned in Article 33 that "the State respects and preserves human rights."

On the occasion of the 28th General Assembly of the ISSA, the International Social Security Association, held in Beijing during September 12-18, 2004, the Information Office of China's State

⁴⁹ United Nations (2005b) gives a cross-cutting study on the living conditions of the elderly.

Council announced a “White Paper on the Situation and Policies for Social Security in the People’s Republic of China.” This was the first white paper ever published on social security by the Chinese government.

In Thailand, the voices for “human dignity” including that of the socially vulnerable became strong in the movement for political democratization following the 1991 military coup and the bloody May 1992 Incident. The Constitution that was promulgated in 1997 established that “The human dignity, rights and liberty of the people shall be protected.” (Section 4) and made substantial revisions to Chapter III Rights and Liberties of the Thai People (Sections 26-65). It also affirmed that “A person who is sixty years of age or over and has insufficient income shall have the right to receive aid from the State, as provided by Law.” (Section 54), and it obligated the government to formulate and implement measures to the effect that “The State shall provide aid to the elderly, the indigent, the disabled or handicapped and the underprivileged for their good quality of life and ability to depend on themselves.” (Section 80 (2)). Building upon these foundations, a “Declaration for the Elderly” was announced in 1999 and the “Law on the Elderly” was enacted in 2003.

3-5-5 Changes in the international climate surrounding the implementation of a social security system

Apart from the domestic factors just described, social security assistance from international organizations affects the implementation of social security systems in developing countries.

Since the 1997 Asian currency crisis, it has become widely accepted by international organizations that the trickle-down effect of economic growth is limited in developing countries and that the negative effects of market liberalization and deregulation should be compensated for separately by social policies. Based on this recognition, international organizations worked energetically to prepare social safety nets. As the name suggests, a social safety net is a posteriori countermeasure for those who have failed to ride on the wave of market liberalization and deregulation or who have suffered damage in these processes.

As the aftermath of the currency crisis subsided, international organizations came to take a longer-term look and began to emphasize cooperative efforts to “eradicate poverty” as represented by the MDGs Initiative. The focus of discussions then shifted in this context to “social protection” which seeks to extend assistance to the vulnerable groups a priori in order to prevent the risks associated with the rampant introduction of a market economy and globalization.

Each international organization has its own targets of social protection ranging from the poor and low-income earners to children, women, workers, the disabled and handicapped, and the elderly. The World Bank issued a paper entitled “Social Protection Sector Strategy” in 2001, and began to strengthen activities in this direction including assistance in implementing social security systems.⁵⁰ In the same year, the Asian Development Bank adopted a “Social Protection Strategy” from the viewpoint of poverty reduction. In Japan, JICA created a study group in 2002 from a similar viewpoint.⁵¹

Such assistance efforts by international organizations are having a visible influence on the social security systems of developing countries.

Let us take the example of pension reform in China. In line with its reform and open door policy, China has been implementing measures for pension reforms to transfer the insurance premiums of enterprises to the pension fund. One such measure was the 1995 State Council circular entitled “On the Deepening of Reform in Enterprise Workers’ Old-age Pensions” that called for financing of the main portion of the pension fund by employee deposits and making only a basic portion of the pay-out a defined benefit to be financed from a social pool. This reform is understood to have been in line with the “three-

⁵⁰ For over a decade, the World Bank has made interventions in the pension reform efforts of more than 80 countries and has extended financial assistances to over 60 countries. For details of these experiences, see Holzmann and Richard (2005).

⁵¹ See JICA (2003b) for the concrete accomplishments.

pillar old-age pension system” suggested by the World Bank (1994).⁵² In 1997, the State Council issued “A Decision on Establishing a Unified Basic Pension System for Enterprise Workers” which resonated with a World Bank report prepared earlier in that year on the future direction of China’s pension system.⁵³

These records clearly indicated the need on the part of China for intellectual assistance from overseas in addressing the population aging issue. International organizations have the solemn responsibility to meet the expectations of developing countries for assistance in the field of social security systems.

3-5-6 Challenges in implementing social security systems

Now let us review the challenges in implementing social security systems from the viewpoint of the aging population, taking a look at health care and old-age pensions (income security).

(1) Health care: responding to changes in the disease structure

Hiroi and Komamura ed. (2003) has summarized as Table 3-9 the health care and welfare systems and income security systems of developing countries. The summary is based on the notion of a “health transition,” that is, changes in the disease structure of developing countries along with economic and social progress.⁵⁴ The stages of population dynamics have been added in the Table.

Let us use this Table to examine what kinds of disease structure changes occur with the changes in the economies and population dynamics of developing countries and what kinds of health care services are required.

The first phase of the health transition refers to the period when responses to infectious diseases have become a major issue (shifting from famine and plague). The major causes are pathogens and poor hygienic conditions in the city environment, rather than the people themselves. The government therefore should take the leading role in promoting vaccination, environmental sanitation and other public health measures. The countries that have the kind of population increase mentioned earlier in this paper are at this phase. Concomitant medical assistance is needed.

Table 3-9 Economic development and the health transition

Health transition/ disease structure	Medical/welfare system		Industrial structure	Population dynamics
	Finance	Service		
First phase: infectious diseases	Public hygiene measures (public property)	Primary care, health center improvement, etc.	A. Pre-industrialization society	Population explosion period
Second phase: chronic diseases	Health insurance system (employees extension to farmers/self-employed)	Hospital-centered: medical care and facilities	B. Early industrial society	Demographic dividend period
	Social security based on the enterprise and the nuclear family as a unit		Late industrial society	
Third phase: senile degenerative diseases	Integrated system of health care and welfare for the elderly	Shift to welfare and home care	C. Matured, aged society	Population aging period
	Toward social security based on the individual as a unit			

Source: Hiroi and Komamura ed. (2003)

⁵² The first tier is PAYG (pay-as-you-go) financing by which contributions from the currently active workers are used as the source. The second is an insurance method by which an individual makes a deposit and later draws from it. The third tier is the market method by which an individual saves and invests on his/her own responsibility.

⁵³ Kaneko and He (2003), contained in Hiroi and Komamura ed. (2003)

⁵⁴ See Hiroi and Komamura ed. (2003), for a detailed description of the “health transition.”

In the second phase, chronic diseases take over infectious diseases, with strokes, malignant tumors and heart disease ranking high on the list of the causes of death. Also known as “lifestyle-related diseases,” such chronic diseases are rooted in the way people take care of their own health. In this phase therefore “insurance” becomes an efficient tool since each individual prepares him/herself for illness through the payment of insurance premiums. Another important aspect is the establishment of a hospital infrastructure, since medical services are made available through hospitals in this phase.

In the third phase, the area of importance shifts from chronic diseases to senile degenerative diseases. The share of medical expenditures for the elderly (65 years of age and older) rises in this phase. Medical expenditures increase rapidly in countries whose population is aging at an accelerated pace. When population aging advances further, the problem of “elderly care” emerges; the integration of health care and welfare services becomes necessary.

Developing countries that are experiencing an aging population with a declining birthrate are generally in the second phase of the health transition with the prospect of moving into the third phase in the coming years. For instance, malignant tumors were the number one cause of death in Thailand in 2001, followed by heart diseases, accidents and cerebrovascular diseases in descending order. This is not much different from developed countries. As far as health transition is concerned, therefore, the kind of health care services commonly required by developing countries with an aging population and a declining birthrate are the introduction of a universal insurance system (health insurance system covering all citizens) as well as the establishment and improvement of the hospital infrastructure to support it.

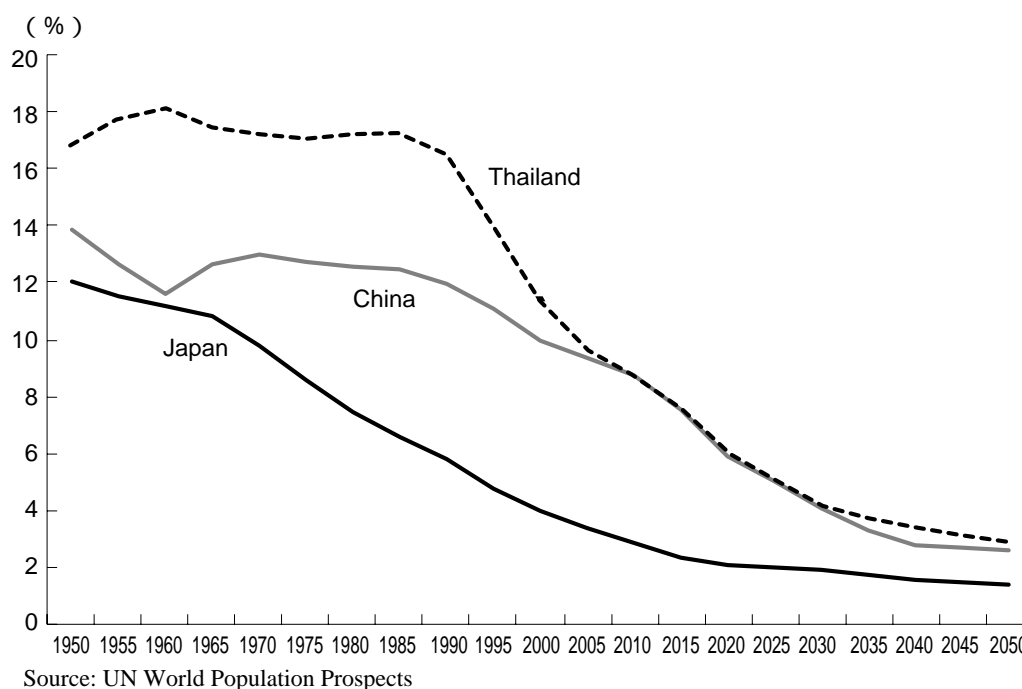
In reality, however, changes in the disease structure are not as distinct as the concept of the health transition suggests. The disease structure of a country varies from one region or income group to another. Rural areas, for example, may be continually struggling with infectious diseases while city dwellers suffer from increased cases of chronic diseases due to their increased income and changes in lifestyles. On a national basis, in addition, pressure is rising for more medical and nursing care for the elderly citizens. The government of a developing country obviously has to attend to all of these phases at the same time. It is clear that such a diverse disease structure within one country makes it difficult to provide medical services on a sustainable basis due to the limited availability of financial and human resources. Medical and health care assistance from overseas should be designed and implemented only after studying carefully the present situation and future prospects of the disease structure of the recipient country and identifying the areas that are most promising and effective for the intended purpose.

(2) Design anticipating rapid changes in the population structure

In designing a social security system, attention must be paid to the speed of the aging of the population in the country. As has been discussed here, birthrates in most developing countries are dropping faster than in the developed countries. The speed of the aging of the population tends to be faster than in the developed countries.

For such a country, the adoption of the PAYG method (active workers supporting the elderly) for the pension system design must be considered with caution. Fig. 3-6 illustrates the ratio of the elderly population to the productive-age population in China, Thailand and Japan. It is evident that China and Thailand in the coming years will experience a very quick drop of their productive-age population (active working generation) that is needed to support the elderly, and the burden per active worker will increase substantially.

Figure 3-6 Relationship between the elderly population and the productive-age population in Japan, China and Thailand



It is too obvious that any provision of generous benefits to the elderly in health care and pensions would result in a rapid increase in the future financial burden. In order to build up a sustainable social security system, it is absolutely essential to design it with the most careful consideration given to the future demographic structure. A good population projection is needed for the population structure of the period when the trend in the low birthrate advances.

(3) Universalism and selective principle

Social security programs, especially social welfare programs, can be divided into two types according to the way the benefit recipients are selected: universalism and the selective principle. The former means that the benefit is provided to everyone, while the latter means it is given to a group of individuals selected according to certain criteria.

When building up a social security system based on universalism, determination of the benefit level is an important question in a developing country that has a large income divide. If the benefit level is determined in response to the opinions of the urban residents who have a relatively high income, the national financial burden will undoubtedly increase very rapidly as the aging of the population progresses.

For the purpose of pension systems in developing countries, the World Bank has divided the elderly into: a) those to whom the formal social security system applies, and b) those who are within an informal social security system. The latter are further classified into those who are constantly living under conditions of poverty and those who are not. The Bank recommended that public assistance entirely financed publicly be extended to those elderly people who are constantly under conditions of poverty.⁵⁵

Pensions systems based on the selective principle have the advantage of being more flexible than the one based on universalism, since the benefits can be paid out according to individual need and the financial burden can be more balanced. On the other hand, it is very important to establish clear and transparent standards for the selection and to minimize the cost of conducting a so-called means test, that is, the investigation of the assets or incomes of individual citizens to select the eligible recipients.

⁵⁵ Holzmann and Hinz (2005)

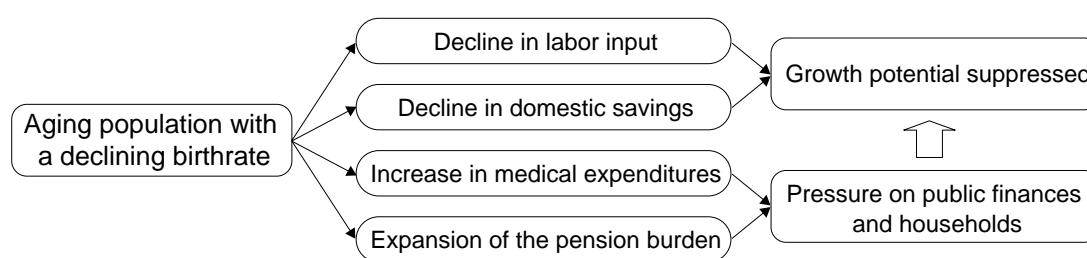
(4) PAYG (pay-as-you-go) benefits and funded benefits

The PAYG method and the funded methods are two basic ways of pension financing. In the PAYG, the necessary funds for the paying out of pension benefits are financed from the contribution made by the current working generation. PAYG has little adverse impact on the national finances, since increases in pension benefits brought about by wage increases or inflation can be dealt with by raising the contribution. On the other hand, it is more vulnerable to the aging of the population. In the funded system, the funds for the benefits to be paid out in future are deposited in advance in the form of the contribution of premiums. This system is susceptible to inflation and other economic changes. It is often said therefore that developing countries that have a relatively volatile macro-economy should start with the PAYG system and, after a certain degree of economic growth and economic stabilization is attained, they should switch to, or partially introduce, a funded system. In using the funded system, the financial infrastructure must be established in advance including the human resources to properly manage and increase the funds, the financial market and the supervision mechanisms. In addition, some support the argument for a mandatory deposit system. In fact, Singapore and Malaysia have introduced mandatory funded systems, which has resulted in high domestic savings and has been a strong driving force for economic growth.

(5) Design with attention to the impact on the economic structure

Fig. 3-7 illustrates the impact of an aging population with a declining birthrate upon the macro-economy. As we have seen already, the aging of the population suppresses growth potential through a decreased labor input and lowered domestic savings. The Chart also shows that the medical and pension systems of a developing country could possibly reduce the growth potential further by exerting pressure on the public finances and household accounts. If the government bears an excessive burden, the fiscal balance will be damaged and spending on infrastructure improvements and other necessary projects could be adversely affected. If the enterprises are to bear the excessive burden, their productive investment could be discouraged. Such a system could also have a chilling effect on the potential of overseas investors to invest in that country. If the household is to assume an excessive burden, personal consumption could be suppressed and cause a slowdown of the short-term economy. Finally, the starting age for benefit payments should be determined in a way that does not allow workers to lose their motivation to work, as has been discussed in the developed countries.⁵⁶

Figure 3-7 Impact of an aging population with a declining birthrate upon the macroeconomy



Source: Author

⁵⁶ Together with the level of benefit, the starting age of benefit payments should be carefully considered. In Japan, the starting age was raised from 60 to 65 in 2000 when the fiscal burden became significantly heavy. The starting age should be compatible with the definition of the elderly and any mandatory retirement age of enterprises. Thailand defines the elderly as 60 years and older but pension benefits are already paid at age 55.

(6) Design with attention to the impact on the social structure

It is also important to consider the possible impact upon the social structure. Some argue that implementation of a formal pension system and elderly care system liberate the elderly of the necessity to live together with their family. Others argue that the presence of elderly members living together brings about a saving in the child raising costs for the parents and prevents an otherwise unnecessary decline in the birthrate. In a graying society, participation of the elderly in the society is a very important issue. An elderly person living together with their family may be one form of such participation. Attention should also be paid to any traditional norms of the society.

Implementation of a social security system is founded on the concepts of the “realization of fairness and equality” and the “role of the state.” The meaning of these concepts can vary, depending on the value system shared by the society and its constituents. It is therefore quite natural that the form of the social security system varies from one country to another. Consideration should be given to the degree of national unity, the ethnic profile, the heritage from colonial times, social habits, and the strength of local communities.

(7) Maintenance of a sound fiscal policy and the rationalization of tax collection

The burden of supporting the elderly is to be shared by the state, enterprises and the household. In developing countries that are at the stage of implementing a social security system, it is inevitable that the government has to bear an increased financial burden. It is necessary for the government to maintain a sound fiscal policy so that it can implement and operate an effective and efficient pension system and other elderly support measures when the country enters the period of an aging population.

It is equally important to improve the tax collection capacity in order to secure the revenues. Not many developing countries have rationalized tax collection systems. Those countries that are expected to undergo rapid population aging should not lose any time in streamlining their taxes and tax collection systems. Such rationalization and improvement efforts to prepare for the arrival of an aged society should be put in place well before the aging of the population becomes serious.

3-5-7 Impediments to social security system implementation in developing countries

In comparison to developed countries, developing countries have stronger impediments to implementing a social security system, a fact that does not leave them many options. Here future directions of the social security systems to be implemented in developing countries are examined, drawing upon the models of the welfare state or social security observed in the developed countries. As a starting point, the classification of social security system models in Western Europe made by Hiroi and Komamura ed. (2003) is used.

Table 3-10 Models of welfare state/social security

Type	Characteristics	Examples	Basic principle
Universalism model	<ul style="list-style-type: none"> - Large social security benefit - Covers all citizens - Financed mainly by taxes 	- Scandinavia	“ Public support ”
Social insurance model	<ul style="list-style-type: none"> - Benefits proportional to contributions - Mainly employees - Financed mainly by social security contributions 	- Germany, France	“ Mutual help ” (mutual assistance, group identity)
Market mechanism model	<ul style="list-style-type: none"> - Minimal public intervention, - Mainly private insurance - Self-help and volunteers 	- United States	“ Self-help ”

Source: Hiroi (1999), Hiroi and Komamura ed. (2003)

As shown in Table 3-10, the models are classified into the “universalism model,” the “social insurance model,” and the “market mechanism model.”

The first model, the universalism model, is a public support-based model that is characterized by heavy public intervention, uniform benefits for all citizens, and financing from tax revenues. This model has a built-in function of income redistribution whereby the wealthy bear a portion of the benefit payout to the less wealthy. The second model, the social insurance model, is a mutual help model in which insurance plays the pivotal role and the benefit payout is largely determined by the amount of the contributions. The coverage is confined to employees and the like who make the contributions. Even though some level of public intervention occurs in this model, the underlying principle is one of a market mechanism whereby the amount of benefits depends on the amount of contributions. The third model, the market mechanism model is a self-help model with government intervention kept to the minimum and with a high dependence on the market. In practice, private company insurance based on the principle of “at your own risk” plays the central role. The portion that depends on market principles is smallest in the universalism model and it is the greatest in the market mechanism model.

Japan, which is a latecomer country in the implementation of a social security system, can be understood as having started with the employee-based social insurance model and to have subsequently expanded the system to the universalism model to cover all citizens. The expansion process includes the introduction of a contribution-free “welfare pension” in 1959 and the inauguration of a “basic pension system” in 1985. Income security measures using the production sector as a conduit such as robust government spending, subsidies to farmers and SMEs may be included in this process. In recent years, however, efforts have been made with sense of urgency to make a further shift to the “self-responsibility”-based market mechanism model in the face of the faster than expected progress in the aging of the population with a declining birthrate and the resulting increase in the fiscal burden as well as the increased self-help abilities of the people due to economic growth.

The Japanese experience of introducing elements of each model in line with the changing conditions of the time should be found useful by developing countries in their efforts to design and implement a social security system. Many developing countries have a social insurance model that covers public servants, servicemen and private enterprise employees as the starting point for strengthening their social security system. The current move to expand it to cover all citizens is indeed a shift to the universalism model. There are however rather major differences from the Japanese experience; there are a larger number of low-income earners who would require public support, and the government would have to be the “insurer” (to pay most of the contributions out of tax revenues) in any newly-introduce social insurance due to the low income levels of the new subscribers, namely, farmers and the self-employed.

In addition, the small size of the fiscal budget would limit the extent of the services that the government could possibly provide, making it necessary to already consider introducing the elements of a market mechanism model simultaneously with that of the universalism model. In some cities in Thailand and China, there are an increasingly large number of people who would be able to support their retired life on their own, though their income levels might be low according to international comparisons. To such a group, it may be possible to encourage subscription to private company insurance based on the principle of personal responsibility. However, for the much larger group of people in developing countries, especially low income earners, farmers and the self-employed, access to private company insurance would be extremely difficult. The government has to explore another model that is neither the universalism model nor the market mechanism model.

In this context, a new model called the “community-based model” or “communalism model” is drawing attention. People in developing countries have been supported until recently by the traditional farm community-based informal social security system, and even today the number of farm villagers is still very large. Revival and reinforcement of these disappearing community functions may prove to be more

effective and less expensive than the implementation of a totally new system. The advocates of this approach stress that such a traditional informal sector should be utilized as a means to supplement a national social security system. Based on its decade-long experience of assistance in the pension system area, the World Bank points out that mobilization of non-financial service providers such as the family and the local community is important for income security for the elderly in developing countries.

In Holzmann and Hinz (2005), the World Bank proposed a multi-pillar pension model as shown in Table 3-11. It should be noted that Pillar 0 comprising public support for the elderly and Pillar 4 comprising non-financial services by the family, community, etc. have been newly added to the 1994 list of three pillars (Pillars number 1, 2 and 3 in the Table). The World Bank multi-pillar model will be discussed in more detail in Chapter 4.

In Thailand, the Ministry of Social Development and Human Security has taken the initiative in the promotion of its “Family Development Strategy 2004-2014” and the National Economic and Social Development Board has been leading a national project called “Lively Villages, Lively Community Projects” to reinstall and reinforce local communities. Both initiatives aim to re-visit and strengthen local communities and the family framework. They can also be understood as an effort to construct a “welfare community,” echoing the ongoing transition of the developed countries from a “welfare state” to a “welfare community.” But neither Thailand nor China has the time to first shift to the “welfare state” phase. They differ from the developed countries in that they have no other options.

It is a fact that local communities are on the verge of extinction even in developing countries. While their restoration and reinforcement are certainly a good and understandable idea, specific action to achieve these objectives have not been clarified. It would be wrong to place excessive expectations on these efforts.

Table 3-11 Multipillar Pension Taxonomy

Pillar	Target group			Main criteria		
	Lifetime poor	Informal sector	Formal sector	Characteristics	Participation	Finding or collateral
0	X	X	x	“Basic” or “Social pension” at least social assistance	Universal or residual	Budget or general revenues
1			X	Public pension plan, publicly managed (defined benefit or notional defined contribution)	Mandated	Contributions, perhaps with some
2			X	Occupational or personal pension plans (fully funded defined benefit or fully funded defined contribution)	Mandated	Financial assets
3	x	X	X	Occupational or personal pension plans (partially or fully funded defined benefit or funded defined contribution)	Voluntary	Financial assets
4	X	X	X	Access to informal support (family), other formal social programs (health care), and other individual financial and nonfinancial assets (homeownership)	Voluntary	Financial and nonfinancial assets

Note: The size and appearance of x reflect the importance of each pillar for each target group in the following increasing order of importance: x, X, X

Source: Holzman and Hinz (2005)

Rather, the value of communities should be re-examined in the new light and possibilities of creating NGO-based new community styles and bringing communities together into new partnerships should be explored. In both countries, too, decentralization or the delegation of authority to local governments is under discussion. It will undoubtedly be more efficient and effective to consider the mobilization of local communities for the establishment of a social security system hand in hand with the discussions on decentralization. Japan has accumulated experience in this respect under the concept of “community welfare,” which might be useful to the developing countries (see Chapter 4).

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Chapter 4

Aging of the Population in Asia and Japan's Community-based Welfare

Natsumi Aratame

4-1 Introduction

The phenomenon of an aging population with a declining birthrate is progressing rapidly in Asia. The Western countries and Japan that have already experienced population aging with a declining birthrate have put in place a number of reforms in their social security systems for health care, pensions and welfare, in order to provide security for the lives of retirees. Developing countries in Asia, in contrast, have yet to establish the institutional systems for health care, pensions or welfare, and their current financial conditions make it extremely difficult to improve these systems in a short period of time. In the first place, these countries have other problems that require more immediate attention than the issue of population aging with a declining birthrate. Under these circumstances, what options do these countries have in order to provide a minimal level of social security to the elderly?

Generally, the various frameworks for social security include: (a) the Scandinavian model of “high benefit/high burden” and (b) the US model of letting the market mechanism take care of the old-age social security under the principle of “at your own risk.” In many developing countries, the high-welfare/high-burden would not work due to fiscal constraints. Neither is it likely that the laissez-faire model based on market mechanisms and individual responsibility principles will function in developing countries. It is more realistic to look for an alternative method somewhere between these two ends of the spectrum. In this chapter the concept and current situation of Japan’s “community-based welfare” will be reviewed as one of such options and its potential will be discussed.

The old-age welfare system currently in place in Japan is aimed at building up a “welfare community” in which an elderly citizen can maintain a self-reliant life in the very neighborhood that he or she has lived for many years. It is by no means aimed at turning the clock back to bring the traditional community back to life again. This Japanese model of old-age welfare, though not so intended, has a lot in common with the model that the World Bank is proposing as a basic framework for social security systems in developing countries.⁵⁷ While the World Bank model is still at the level of a theoretical proposal, however, the Japanese model of “community-based welfare” has been legislated nationally, put into practice at the local government level, and is producing many concrete results. In this sense, the Japanese experience should be particularly useful for the formulation and development of social security policies in the developing countries of Asia.

In this Chapter, the social background that gave rise to the need for “community-based welfare” in Japan and Asian developing countries is first described. Next, the history of community-based welfare in Japan is reviewed together with its legal framework. Thirdly, the types of welfare providers are analyzed. It is shown that the diversification of service providers is taking place to meet the changing demands at the community and local government levels. Finally, two cases of community-based welfare will be presented, one each from an urban and a rural area that will underscore the importance of the original and innovative ideas at the local level in implementing community-based welfare. These cases should serve as a good reference point in promoting community-based welfare in Asian developing countries.

⁵⁷ See Holzmann and Hinz (2005) on this specific point. For an overview of the theory of the welfare state and social security systems in Asia, see Hiroi and Komamura ed. (2003).

4-2 Aging of the Population and Community-based Welfare

The Japanese population is aging very rapidly. As has been mentioned in this report, Japan became an “aging society” in 1970 when the proportion of those aged 65 years and above exceeded 7% of the total population, and it became an “aged society” in 1995 when this ratio exceeded 14%. At the time of writing this proportion has exceeded 20% and is still rising. In terms of the number of households, 24% of all households had at least one member aged 65 years and above in 1980. This percentage had gone up to 33% by the year 2000.⁵⁸ The advent of such a graying society is often viewed as a negative factor that increases the health care, pension and other social security costs and has a chilling effect on economic growth. However, most of the population aging-related issues such as physical nursing care, dietary assistance and medical assistance are real problems that people are faced with in daily life and these concrete life-related problems must be addressed by the family and the local community that the elderly belong to. In postwar Japan, however, the family and the community that ought to support the elderly have changed dramatically.

In terms of the household structure, the average household size that was approximately 5 persons in 1950 declined to 2.7 persons by 2000. The phenomenon of the nuclear family has proceeded while the number of three-generation households has decreased and that of single-member households has increased. The reduction in household size is not only due to the declining birthrate, but is also a reflection of changes in the household structure.⁵⁹ With respect to households having an elderly member aged 65 and above, the proportion of households consisting of just a single elderly person or an elderly couple (both aged 65 and above) has risen from 28% to 47%. Meanwhile the proportion of elderly people living together with their child or children has fallen from 69% to 49% (see Table 4-1). Traditionally in Japan, care in old age was provided for by the family living together with the elderly member. The advancement of a declining birthrate, the reduction in the size of the household and the drop in the proportion of the elderly living together with a family member all suggest a decline in the number of caregivers and, more fundamentally, a departure from the traditional pattern of elderly parent care through family members living together.⁶⁰

Local communities that are expected to support the daily life of the elderly are changing dramatically too. In parallel with the postwar process of rapid industrialization and urbanization, the rural population decreased by 23 million between 1950 and 1970 while the urban population increased by 43 million. This vigorous migration process resulted in the overcrowding of cities and depopulation of the countryside, causing a breakdown in traditional community ties. Neighborly relationships and mutual assistance were prerequisites for living in the traditional society, but such ties became looser and looser with the advance of industrialization and urbanization.

According to a survey on personal relationships in communities, 53% of the respondents answered that they “have close relations with the neighbors” in 1975, but this percentage declined to as low as 22% in 2004. A geographical breakdown by size of residence showed that towns and villages had the highest percentage of those who responded that they “have close relations with the neighbors,” though the percentage was no more than 35%. Respondents from small cities, medium-sized cities and large cities

⁵⁸ Statistics for the years up to 2000 are cited from the National Institute of Population and Social Security Research (2005), and for 2006 from the population projection made by the National Institute of Population and Social Security Research in January 2002. The ratio of old-age households in 1980 is according to the Cabinet Office (2005). Incidentally, the terms “aging society” (elderly ratio of 7%) and “aged society” (elderly ratio of 14%) are customarily used today, but the grounds for this or its origin is not clearly known (Cabinet Office (2005) p. 5).

⁵⁹ For the historical evolution of the family structure in Japan, see the National Institute of Population and Social Security Research (2005).

⁶⁰ This suggests not only that the change in the family structure is caused by the declining birthrate, but also by the changes in the mores behind the family structure in terms of parent-child relationships. The view that children should take care of their parents has retreated considerably in recent years. Taking care of elderly parents is becoming more of an unavoidable obligation than a social norm. For more details, see Ishikawa (1998) Chapter 12.

Table 4-1 Household patterns of the elderly aged 65 years and above

(%)

	Living alone (1)	Only with a spouse (2)	(1)+(2)	Living with a child(ren)
1980	8.5	19.6	28.1	69.0
1990	11.2	25.7	36.9	59.6
2000	14.1	33.1	47.2	49.1

Source: National Institute of Population and Social Security Research (2005)

followed with 23%, 19% and 14%, respectively. Given the fact that only 21% of the Japanese population lived in towns and villages in 2000, the survey results must be understood in the context of the overall trend towards the sparseness of neighborly relations throughout Japan as well as the steady waning of societal relationships even in traditional communities.⁶¹

In the depopulated intermediate and mountainous areas, the population outflow and declining birthrate have accelerated the pace of the aging of the population and in some cases have made it extremely difficult to maintain the village as it is.⁶² It is difficult and even dangerous for the elderly to continue living in such areas without the help of community health care and welfare services. In urban areas, too, it is increasingly difficult for the elderly and for the family living together with them to maintain their lives without community-based welfare services, since the elderly are usually left alone during the daytime while the family members work as employees away from home. The rising interest in the welfare functions of the community stems from such situations.⁶³

Similar changes are taking place in the developing countries in Asia (see Table 4-2). The decline in the birthrate is progressing very rapidly in East Asia. When we look at the living arrangements of the elderly in China, Korea and Taiwan, changes similar to those in Japan are taking place, apparently at a faster rate. In all three countries, the family plays the major role in elderly care. Similar to Japan, however, the proportion of the elderly living together with their children is falling and the proportion of the elderly living alone or only with a spouse is on the rise. It is true that the proportion of the elderly living together with their children is relatively high in many Asian countries since it is still an important social norm. It is also true that living apart from children is not always synonymous with alienation from family ties. Nonetheless, there are signs that the tradition of elderly care by the family living together is changing.⁶⁴

⁶¹ See Bureau of Statistics, Ministry of Internal Affairs and Communications (2006) for changes in the urban and rural populations of Japan. See Public Relations Office, Cabinet Office (1975) and Public Relations Office, Minister's Secretariat, Cabinet Office (2004) for changes in neighborly relationships.

⁶² The depopulation problem is now aggravated and has developed from the stage of an exodus of young people to the stage of "villages on the verge of extinction" due to the impact of the aging population with a declining birthrate. See Yamamoto (1996) and Yamamoto, Tokuno, Kaku and Takano (1998) for the present situation and aspects of this depopulation problem in Japan.

⁶³ This paper describes the interest in local communities from the viewpoint of "community-based welfare." The issue of community revival has been raised from various other perspectives as well. Important examples include "Community: Restoration of Humanity in Life Habitats" (the 1969 Recommendations by the Community Issues Sub-committee of the Quality of Life Policy Council) and the Model Community policy measures that were initiated in 1971 by the then Ministry of Home Affairs. See Kurasawa (2002) for more details.

⁶⁴ See Sagaza (1996) for a detailed discussion on families and the elderly, and patterns in living arrangements and family structure in Asia.

Table 4-2 Living arrangements of the elderly aged 65 years and above: China, Korea, Taiwan
(%)

	Year	Living with child(ren)	Living alone	Only with a spouse
China	1982	71.2	12.2	14.2
	1990	71.0	9.5	17.6
	2000	64.1	9.5	24.5
Korea	1984	78.0	不明	21.0
	1990	73.0	8.9	16.9
	1995	62.6	13.3	23.3
	2000	54.7	16.2	28.7
Taiwan	1980	81.6	12.8	n.a.
	1989	70.7	22.8	n.a.
	1999	62.7	30.1	n.a.

Note: Taiwan figures for “ Living alone ” represent the sum of “ Living alone ” and “ Only with a spouse. ”

Source: Prepared from Knodel and Debavalya (1992), Knodel and Debavalya (1997), Department of Economic and Social Affairs, Population Division (2005), Choe and Byun (2003), Sun (2003).

4-3 Evolution of Community-based Welfare in Japan

4-3-1 Evolution of the social welfare system

Social welfare in Japan has made significant progress since the end of World War II. The 1990 amendment to the eight welfare-related laws and the Social Welfare Services Law, the 1997 enactment of the Long-Term Care Insurance Law (implemented in 2000) and the 2000 amendment to the Social Welfare Law were extremely important in creating a community-based welfare scheme in Japan and can be said to have marked major milestones in the overall history of the social welfare system in Japan.⁶⁵ While these laws were indeed influenced by Western concepts and methodologies such as “community organization,” “community care,” “community work,” and “community development,” the Japanese scheme is both a concept and a collection of practices unique to Japan, reflecting the Japanese political and administrative systems in general and the realities of local communities in particular.⁶⁶

The recent progress in the development and spread of the concept of community-based welfare in Japan was of course not achieved overnight. Neither was it possible for such a significant reorientation in

⁶⁵ The review here of the overall deliberation process on social welfare-related laws and the outline of the long-term insurance system drew upon Hirano et al. (2001) and the Editorial Committee on the Trends in Social Welfare (2004). The 2000 amendment was a direct consequence of the June 1998 recommendations of the Central Council on Social Welfare entitled “On a Structural Reform of the Base of Social Welfare: an Interim Summary.” Behind this report were: a) the need to curb the rising welfare costs that have become conspicuous since the 1990s, and b) the inadequacy of the conventional unilateral public services (administrative action for low-income earners) to meet the diversified social needs of the time. In fact, these two motives are closely interrelated; the administrative action system, to the extent it is financed from state coffers, raises public welfare costs since the aging of the population is accompanied by higher medical service needs. For a detailed background to the structural reform of the basis of social welfare and a critical review of it, see Ito (2003).

⁶⁶ The influence of Western theories is observed, for example, in the early theorists including Okamura (1974) and Nagata (1981) who pioneered the field of community-based welfare in Japan. For the introduction, absorption and “Japanization” of the Western-derived concept of “community welfare,” see Takekawa (2005), Tsutsui (2004) and Hirano et al. (2001), for example. While many private social service organizations are operating actively in many Asian countries, Japan’s national and municipal Councils of Social Welfare, which are semi-governmental entities, are unique and hardly have any counterpart in other Asian countries in that they operate on a regional monopoly basis as local centers for private social service organizations. In addition, in contrast to the West in particular, the roles played by neighborhood associations that involve practically all the residents in the neighborhood constitute an important element of the Japanese model of community-based welfare. Discussions abound on the nature and role of neighborhood associations in the past and at present. See for example Kurasawa and Akimoto (1990).

the philosophy and institutions to take place from the standpoint of social welfare alone: it was made possible in the broader context of many changes that were introduced in the conventional local government regime.

The initial focus of Japan's public social welfare during the postwar era was on the support for the poor and needy, war orphans and disabled veterans. The Daily Life Security Law was enacted in 1946, followed by the Child Welfare Law in 1947 and the Law for the Welfare of People with Physical Disabilities in 1949. In those days, interest in community welfare was limited, and the main objective was to construct facilities to provide shelter to the socially vulnerable. With the restoration of stability in the 1950s, the scope of welfare policies was enlarged to include health and hygiene as well as poverty, addressing more the quality of life of residents in local communities. The period in which interest grew in the theory and practice of community welfare began. However, it was in the 1960s that Japan's social welfare system was solidified. The Law for the Welfare of People with Mental Retardation was enacted in 1960, followed by the Welfare Law for the Elderly in 1963 and the Maternal and Child Welfare Law in 1964. Thus, the six welfare-related laws that together constitute the core of public welfare services in Japan were established.

Major changes that began in the 1950s in the structure of local communities became conspicuous by 1970 following the high economic growth era of the 1960s. As has been discussed earlier in this chapter, the rapid industrialization and urbanization spurred an excessive concentration of people in the cities and the depopulation of the countryside, causing the disorganization of traditional local communities. This was also a time when people became more strongly interested in the quality of life in the community through civil activities against the deterioration in the living environment due to industrial pollution and other causes. It is under this condition that the policy interest rose in the reinforcement of the community. The 1969 recommendations entitled "Community: Restoration of Humanity in Life Habitats" by the Community Issues Sub-committee of the Quality of Life Policy Council and the Model Community policy measures initiated in 1971 by the then Ministry of Home Affairs were among the forerunners of this trend.

Japan entered the era of an aging society during the 1970s. The population aged 65 years and above exceeded 7% of the total population, and elderly care and other problems associated with the aging of the population emerged as a social issue. It was in 1972 that "The Twilight Years" by novelist Sawako Ariyoshi became a best-seller and brought the realities of elderly care into the light. Interest in elderly welfare by the general public was heightened around this period, and the year 1973 was called "the New Year on Welfare" when free medical services for the elderly and the index-linked pensions were introduced. The 1973 policy recommendations by the Central Social Welfare Council entitled "Formation of Community and Social Welfare" reflected people's concern about the need for community-based welfare, particularly in the area of social welfare. The recommendations elucidated the relationship between public facility care and home care and pointed out the need for creating a community as a professional care regime that integrated the two types of elderly care.

4-3-2 Increasingly strong interest in community-based welfare

The late 1980s saw the above-mentioned trend accelerate. The report "On the Future Directions of Social Welfare" that was prepared in March 1989 by the Joint Planning Working Group of three welfare-related Councils proposed greater emphasis on the role of the municipal governments, community care services, the promotion of private-sector services, the coordination and integration of welfare with public health and medical services, the development of care-givers and the improvement of information dissemination on welfare. The report was indeed instrumental in setting the direction of welfare policies to this date. It led the way to the enactment of the "Law Partially Amending the Welfare Law for the Elderly and Other Related Laws (the Eight Welfare-related Laws)" and the amendment of the Social Welfare Services Law. Also, around this time, concrete measures to respond to the advent of the aging society began to be systematically formulated. A case in point was the 1989 formulation of the "Ten-year Strategy to

Promote Health Care and Welfare for the Elderly” also known as the “Gold Plan,” which was succeeded by the 1994 formulation of “New Ten-year Strategy to Promote Health Care and Welfare for the Elderly” (the “New Gold Plan”) and the 1999 formulation of the “Direction for Health Care and Welfare Measures for the Elderly in the Next Five Years” also called the “Gold Plan 21.”

The 1990 amendment of the eight welfare-related laws and of the Social Welfare Services Law articulated the spirit of community-based welfare for the first time. The term “community care services” was officially introduced where, as a primary means of provision, home help, day services and short stays were clearly spelled out. It also delegated the authority to take administrative action for institutionalization to municipal governments. By this amendment, every municipal and prefectural government was required to prepare an elderly health and welfare plan beginning in 1993. Certification systems were also introduced for the purpose of developing a large pool of elderly care professionals and for facilitating the entry of private-sector care service providers. The Law on Certified Social Workers and Certified Care Workers was enacted in 1987, followed by the enactment of the Law on Certified Mental Health Welfare Workers and finally by the enactment of the Long-term Care Insurance Law in 1997, which came into force in 2000. By incorporating all the progress in the philosophy and concepts of social welfare, the eight welfare-related laws were revised in 2000, and the Social Welfare Services Law was revised under the new name of the Social Welfare Law.⁶⁷

4-3-3 The Social Welfare Law and Long-term Care Insurance Law

The Social Welfare Law⁶⁸ of 2000 provides that the objective of welfare services is to “protect the interests of the users of welfare services and promote social welfare in the community (hereinafter “community-based welfare”)” in its Article 1- Objectives. In Article 3 – Basic Philosophy of Welfare Services, it states that the basic philosophy of welfare services to be pursued is “to ensure individual dignity, and the services shall be of good quality and suited to the individual user so as to help him/her attain healthy development both physical and mental and lead a self-reliant daily life commensurate with his/her abilities.” As a means to put this philosophy into practice, the Law calls for the promotion of cooperation between the public and private sector organizations and the participation of community members by stipulating in Article 4 – Promotion of Community-based Welfare in which “all members of a community, those who are engaged in social welfare-related enterprises and those who carry out social welfare-related activities shall cooperate with each other and shall work to promote community-based welfare so that the community members in need of welfare services can lead a daily life as constituent members of the community and have the opportunity to participate in social, economic, cultural and all other types of activities.” In order to implement the aforesaid objective and philosophy in a coordinated manner, the Law officially identified the municipal council of social welfare as the main promoter of community-based welfare, and required in Articles 107 and 108 that community-based welfare support plans be formulated both at the prefectural and municipal levels.

The long-term care insurance that was implemented in 2000, the year in which the Social Welfare Law was enacted, provided a basic and concrete framework for the implementation of elderly welfare in the community. The Long-term Care Insurance Law had the stated objective of streamlining the environment in which care receivers can lead a self-reliant life in the community and emphasized “community care services,” marking a departure from the previous welfare system of institutionalizing the care-needing

⁶⁷ The eight welfare-related laws include the Social Welfare Services Law, Law for the Welfare of People with Physical Disabilities, Law for the Welfare of Mentally Retarded People, the Child Welfare Law, the Social Worker Law, Law for Retirement Allowances and Mutual Aid of the Employees of Social Welfare Facilities and the Like, and Partial revisions of the Livelihood Protection Law as well as abolishment of the Public Pawnshop Law.

⁶⁸ The official title of the Social Welfare Law is “The Law for the Partial Amendment of the Social Welfare Services Law and Certain Other Laws for the Promotion of Social Welfare.”

elderly in special facilities. In the previous system, moreover, care receivers and care-givers were not on equal terms and care receivers had no choice of services, since the care services were provided under the responsibility of the state (administrative action). Under the system of long-term care insurance, the relationship was changed to one that was equal and even (through a contract), and the user was now able to purchase from public or private-sector care providers the type and amount of welfare services according to his/her choice. The long-term care insurance is a regional insurance, and the business plans are made and revised according to the realities of each municipality, albeit in line with the national guidelines. The emphasis on community-based welfare was reinforced by the revisions to the Long-term Care Insurance Law that came into effect in April 2006; the revised Law stressed the importance of preventive care and called for the strengthening of community-based services as a means to achieve this.

Granted, the community-oriented welfare that we have described above is only one of many methodologies to achieve welfare. However, community-based welfare in the present welfare regime of Japan has been made into a policy ideal to be pursued as well as a policy tool. The question of elderly welfare should be understood in this context. Specific policy measures for the welfare of the elderly are delineated in the “Municipal Health and Welfare Plan for the Elderly”⁶⁹ and in the “Municipal Long-term Care Insurance Plan,” both of which are prepared maintaining consistency with the aforementioned upper level plan for municipal welfare.

Such interest shown towards local communities is not confined to the field of welfare alone; it is closely linked to the ongoing changes in the way government administration is conducted in Japan. For instance, the 1969 “Law on Local Self-governance” required local governments to prepare a local-level basic vision (comprehensive plan), and following its revision in 1998, it constitutes part of the institutional basis for the present-day debate on government decentralization. The welfare plan mentioned above is in most cases prepared and implemented as a subprogram of this municipal basic vision. The momentum for local self-governance and decentralization was given further impetus by the 1999 “Comprehensive Law for Local Decentralization.” By abolishing or reducing the administrative functions previously imposed upon local governments by the national government, the Law clearly signaled a departure from the centralized administrative system in favor of local self-governance. Thus, the ground has been laid for individual local governments to promote their own community-based welfare not just as a philosophy, but in substance. This revision in the legal framework for local self-governance has played an important role in the promotion of community-based welfare since the year 2000.

Lastly, the ideal of community-based welfare is not immune to the international trends surrounding elderly citizens. The concept of “normalization” which is one of the most important ideals has come to be widely recognized after it was incorporated in the declaration of the International Year of Disabled Persons (1981). The notion that disabled persons should not be looked at upon as being special and should enjoy living conditions equal to those of other citizens did not stop at the field of welfare for disabled persons; it has spread to other welfare fields and has served as the theoretical backbone of the now prevailing approach of community care services. Though seemingly irrelevant to elderly welfare, the latest concepts of MDGs and human security are along the same line of thought in that they all advocate participation and equality.

⁶⁹ Policy initiatives for the elderly include: the “Ten-year Strategy to Promote Health Care and Welfare for the Elderly” also known as the “Gold Plan” of 1989, the “New Ten-year Strategy to Promote Health Care and Welfare for the Elderly” (the “New Gold Plan”) of 1994 and the “Direction for Health Care and Welfare Measures for the Elderly in the Next Five Years” also called the “Gold Plan 21” of 1999. For outlines of these initiatives, see the Editorial Committee on the Trends in Social Welfare (2004). For the Law on the Health and Welfare of the Elderly, see Shirasawa et al. (2002).

Table 4-3 Evolution of legislative measures related to community-based welfare in Japan

Year	Legislation
1969	Revision of the Law for Local Self-governance “ Community - Restoration of Humanity in Life Habitat ” (Quality of Life Policy Council)
1971	Model Community Initiatives (Ministry of Home Affairs)
1973	“ Creation of Communities and Social Welfare ” (Central Council on Social Welfare)
1983	“ On the Future Direction for Social Welfare ” (Joint Planning Working Group of three welfare-related Councils)
1989	“ On the Future Direction for Social Welfare ” (Joint Planning Working Group of three welfare-related Councils) “ Ten-year Strategy to Promote Health Care and Welfare for the Elderly ” (the Gold Plan)
1990	Revision of the Eight Welfare-related Laws and of the Social Works Law
1994	“ New Ten-year Strategy to Promote Health Care and Welfare for the Elderly ”(the “ New Gold Plan ”)
1997	The Law on Certified Social Workers and Certified Care Workers and the Law on Certified Mental Health Welfare Workers Enactment of the Long-term Care Insurance Law
1999	The Comprehensive Law for Local Decentralization “ Direction of Health Care and Welfare Measures for the Elderly in the Next Five Years ”(the Gold Plan 21)
2000	Social Welfare Law

Source: Author

4-4 Major Actors in Community-based Welfare

To put community-based welfare into action, the “community” must be strengthened and revitalized by initiatives from the outside. Now that the welfare administration has been reoriented in the direction of community-based welfare, it is all the more necessary that sufficient human resources be made available to provide proper frontline services to the elderly. This section will first highlight the major characteristics of welfare services and then give an overview of the potentially available welfare resources in local communities in Japan.

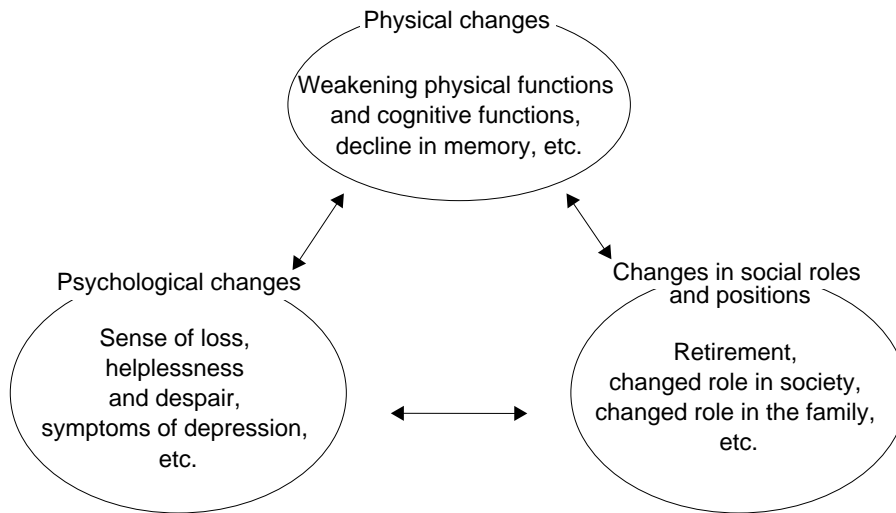
4-4-1 Characteristics of welfare services for the elderly

In the preceding section, the evolution of welfare systems in Japan was reviewed and it was pointed out that the shift of focus in the course of this process was onto the creation of frameworks for realizing welfare in the community. The ideals of the Social Welfare Law, simply put, are “individual dignity, mental and physical health, and self-reliance.” Since the services are provided to humans, not machines, “removing stains and putting in oil” is neither the way to respect individual dignity nor to maintain mental and physical health. The term “self-reliance” has nothing to do with a machine either. The clear objectives of today’s welfare are to “live better” instead of just “being alive” and to help make this happen. The shift from institutionalization to community-based welfare that we have described in the preceding section reflects this change in ideals. This is where the idea of “Quality of Life” (QOL) comes into play in welfare services. Welfare in general, however, is not identical to elderly welfare. When considering the issue of elderly welfare, careful attention must be given to the conditions that are specific to the elderly, different from those of child welfare, for example.

In the discussion of QOL for the elderly, it is necessary to consider the physical, psychological and social changes that are unique to the elderly.⁷⁰ These changes are summarized in Fig. 4-1.

⁷⁰ There are many studies on the QOL of the elderly. Major ones include Renwic et al. (1997) and Shirasawa et al. (2002).

Figure 4-1 QOL factors of the elderly

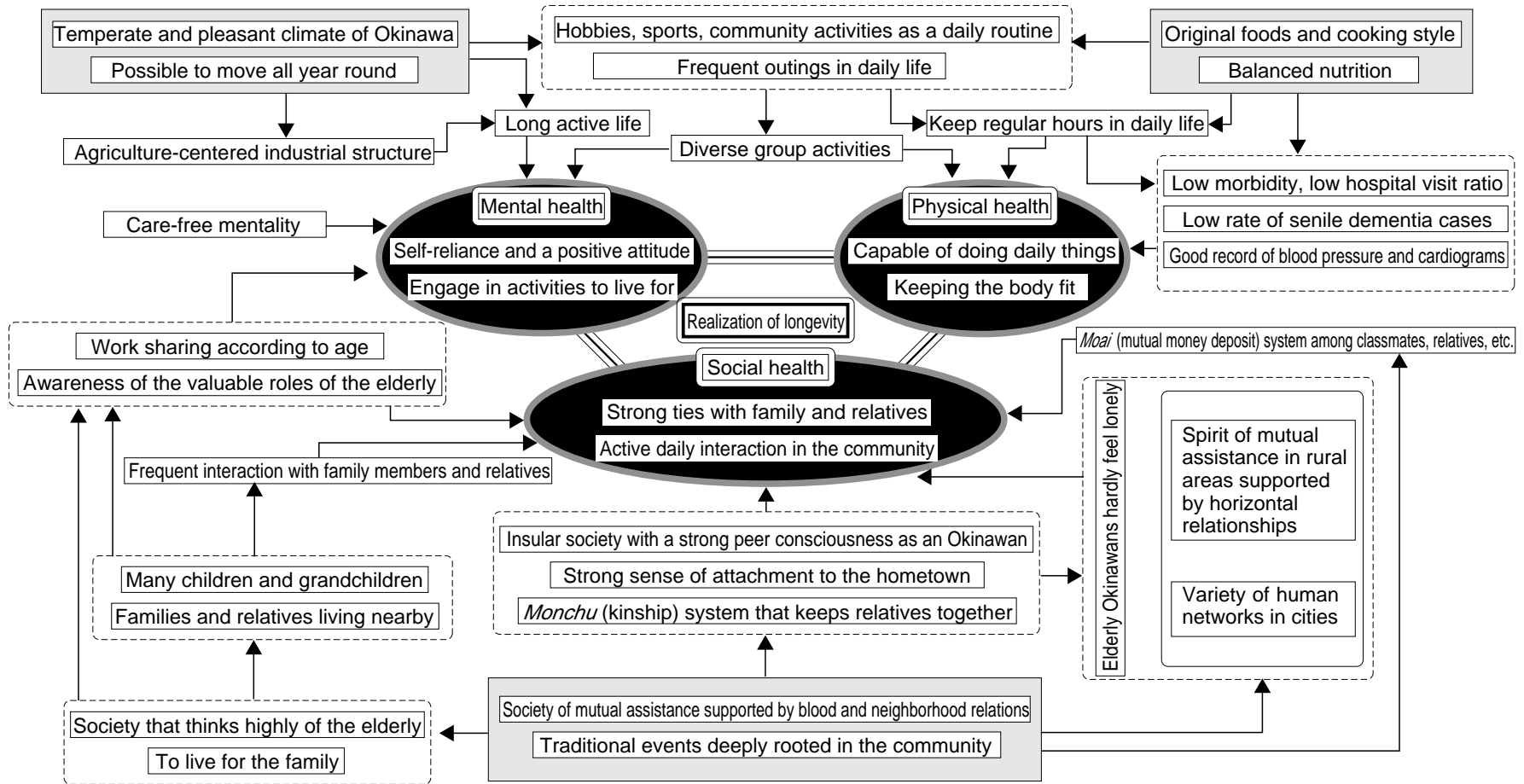


Source: Shirasawa et al. (2002) p.63

The deterioration of physical functions with age is a factor contributing to a deep sense of loss, together with changes in social roles. Such a psychological state, in turn, adversely affects people's physical condition. In contrast, continuation of active participation in the society is an important prerequisite for the maintenance of the health condition of the elderly. As many studies have shown, cognitive functions diminish rapidly when an aged person begins to withdraw into his or her private home or room. The ideals of participation, equality and self-reliance as well as the concept of normalization mentioned earlier have important significance from this perspective, too. In order to maintain and advance the quality of life of the elderly, it is a fundamental requirement to make available the conditions on which an aged person, disabled or otherwise, can participate in social life and lead a daily life without relying entirely upon others.

A similar analysis has been made with more specific examples in Kaneko (1998) (see Fig. 4-2). Kaneko looked into the factors that sustain longevity, based on a comparative survey of Okinawa and Nagano, the two prefectures in Japan with the highest longevity. The diagram below illustrates the situation in Okinawa.

Figure 4-2 Correlation diagram of longevity factors



Source: Kaneko (1998) Fig. 4-1

At the center of the diagram is the triangle of mental health, physical health and social health, similar to Fig. 4-1. As illustrated in this diagram, the elderly residents of Okinawa are blessed with opportunities to maintain their physical health by going out frequently for the purposes of “hobbies, sports and community activities.” At the same time, they are prevented from feeling lonely thanks to the existence of opportunities for intensive social interactions based mainly on kinship and neighborhood relations. It should be noted however that the picture in other regions could well be different.

For instance, the elderly citizens of Nagano tend to find pleasure in activities such as “travel” and “reading newspapers and magazines.” Their counterparts in Okinawa, in comparison, tend to find more satisfaction in human relationships such as “happy times at home” and “playing with grandchildren.” Kaneko previously categorized the sources of motivation in life of the elderly into “family exchanges,” “association with friends,” “participation in the society” and “hobbies and pastimes.” In this vein, the elderly citizens of Okinawa are finding happiness in life in the relatively strong ties that unite the family as well as the local community.

The above description clearly indicates that it takes more than just physical care to enhance the quality of life of the elderly; social and mental health are equally important in addition to physical health. The objective of community-based welfare in this sense is to provide the community environment that fosters and promotes all these three elements.

4-4-2 Diversifying actors in community-based welfare

As in other service industries, welfare services are heavily dependent on the human element. In the welfare services for the elderly in particular, the services should be provided with due attention to social, mental as well as physical health aspects. Since the latest long-term care insurance system intends to offer personalized services best suited to the individual situation, a professional ability is required to develop the optimum combination of health and medical services for each elderly person.⁷¹

Given the prospect of increasing need in the quality and quantity of elderly welfare services with the aging of the population, the quantitative enhancement and qualitative improvement of care-givers are an impending task. In reality, however, the efforts to achieve this are far from satisfactory.⁷² Yet the technical base for the provision of life assistance services to the elderly does not necessarily require long-term medical training. Here lies an opportunity for non-professionals such as community neighbors and volunteers to participate in and make a contribution to elderly welfare. There are many kinds of activities that do not require professional health and medical services to sustain a self-reliant life of the elderly, such as assistance in housework, shopping and taking a walk, and the “watch out service” to be described later. It is necessary, however, for such support networks to function in an area that is easily accessible to the care-receiving elderly. This is indeed one of the very reasons that the mobilization and organization of informal welfare resources based on neighborhood relationships presents an important perspective for community-based welfare to be realized.

⁷¹ To secure professional personnel for elderly care and to facilitate the entry of private-sector newcomers, the Law on Certified Social Workers and Certified Care Workers and the Law on Certified Mental Health Welfare Workers were enacted in 1987 and 1997, respectively. In addition, Home Helper (home-visit care-giver) Training Courses (Classes 1 to 3) are offered by local governments, welfare businesses and welfare-related vocational schools. Though it is possible to work without this qualification, at least Class 2 is often required in practice. Together with the implementation of the Long-term Care Insurance Law, the job of Care Manager (long-term care support expert) was created. A Care Manager plays a pivotal role in developing care programs for recognized care receivers.

⁷² The “Direction for Health Care and Welfare Measures for the Elderly in the Next Five Years” (the Gold Plan 21) estimated that 350,000 home helpers would be needed in fiscal 2004 (Editorial Committee on the Trends in Social Welfare (2004)). The actual number of home help service providers in that year was a little over 160,000, by far short of the projected number (Statistics and Information Department, Minister’s Secretariat, Ministry of Health, Labor and Welfare (2005)).

Table 4-4 Evolution of resident participatory welfare service organizations

	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
Resident mutual aid type	75	91	107	147	175	246	346	435	549	646
Social welfare council-led type	90	108	126	148	173	224	249	263	281	309
Cooperatives	34	31	32	40	47	54	77	75	94	102
Agricultural cooperatives		1	2	2	2	23	27	30	37	66
Workers collectives		23	25	39	45	58	72	105	116	149
Government intervention type	18	27	27	31	36	39	42	45	51	58
Facility operator type	13	14	3	4	4	5	6	8	13	12
Family service clubs						41	38	37	38	35
Others	41	37	37	41	38	1	4	4	4	32
Total	271	332	359	452	520	691	861	1,002	1,183	1,409

Source: Kurasawa (2002) p.130

The welfare resources available in a community include: (a) formal services such as long-term care insurance provided by the national and local governments, and (b) informal services spontaneously organized and provided by welfare organizations and volunteers to supplement the existing legal and other public systems. The major actors of community-based welfare in Japan have been changing dramatically in recent years. Traditionally, welfare services were provided by either government bodies or professional organizations such as the social welfare councils. Since the 1980s, diversification of the service providers occurred, including neighborhood community associations, volunteer groups, NGOs/NPOs and the so-called “silver businesses.” Table 4-4 summarizes the evolution of participatory welfare service organizations. The trend towards diversification can be seen clearly.

Many of the organizations included in this table are not for profit ones, operating on the basis of paid services (though low-priced), and consisting of members who help each other as both welfare providers and receivers. In this connection, they are of a different character from the conventional volunteer activities and represent a new direction in community-based welfare; they are providing welfare services that respond to local needs in a flexible and creative manner, which public agencies are unable to provide. In just one decade, they grew significantly in number - from 271 in 1989 to 1,409 in 1998. The increase was particularly noticeable in the resident mutual aid type, from 75 to 646. This trend has continued into this century. Between 2000 and 2003, the number of organizations engaged in home-visit care increased 3.5 times (incorporated NPOs), 2.4 times (business corporations), 1.5 times (cooperatives) and 1.4 times (medical corporations). Incorporated NPOs recorded by far the largest increase.⁷³

4-4-3 Council of Social Welfare – the nucleus of private-sector welfare

The increase in resident participatory organizations may give the impression that the structure of welfare service providers is becoming fragmented. However, the unique feature of community-based welfare in Japan is the existence of the “Social Welfare Council” (hereinafter “SWC”) that is organized in every municipality throughout the country and promotes community-based welfare from the non-governmental standpoint.

The history of SWC goes back to the Central Council of Social Welfare which was formed in 1951 through the amalgamation of the Japan Social Welfare Services Association, the All Japan Commissioned Welfare Volunteers’ League, and the Fellow Countrymen Assistance Association. Since then an SWC was organized gradually in each prefecture and municipality. There were 3,251 municipal SWCs with a total

⁷³ Cabinet Office (2005) Fig.1-4-2 (in CD-ROM)

number of over 20,000 employees as of 2004.⁷⁴ Though it is a “non-governmental organization,” an SWC is firmly established in the Social Welfare Law as the organization located in each municipality to promote community-based welfare. Its members comprise resident organizations including neighborhood community associations, PTAs, senior citizen clubs, NGOs, agricultural cooperatives and consumer cooperatives, and social welfare-related organizations including welfare facility operators, commissioned welfare volunteer, child care workers, business enterprises, and the government. It coordinates the welfare activities in the community and also conducts its own social welfare activities.

The main activities of a local SWC encompass organizing residents and welfare organizations for community welfare, promoting neighborhood welfare activities, encouraging volunteer activities, implementing and fostering community care services, and coordinating with the government and welfare facilities. Since the 1980s, in particular, “creating a welfare community” has become the basic goal of the SWCs and efforts have been directed to organizing welfare resources in the community. Neighborhood welfare activities are often carried out on primary and other school district levels or on neighborhood community association (or unions thereof) levels, and seek to develop proactive networks to review and solve local problems. The “watch-out campaign” in Akita Prefecture that will be explained in the next section is one such example. In addition to these activities, every prefectural SWC has been mandated by the provisions of the 2000 Social Welfare Law to set up a “Committee for Proper Management” that will oversee the welfare service utilization support program (the Welfare Rights Protection Program) and respond to complaints from the users.⁷⁵

Though a non-governmental organization, an SWC is thus a “semi-public organization” having a public nature to a very high degree. In consonance with the municipal welfare plan, the municipal health and welfare plan for the elderly and the municipal long-term care insurance plan that are prepared by the municipal government from the standpoint of an administrative body, a municipal SWC formulates a “municipal welfare activity plan” covering activities by both the residents and non-governmental organizations.

Being organizations that are deeply embedded in the community, the nature and scope of municipal SWCs vary rather significantly from one locality to another. Since the Long-term Care Insurance Law came into force in 2000, however, community care services have become a major activity and a very important revenue source for many local SWCs.⁷⁶

In summary, there is an on-going process of diversification of the actors involved in community-based welfare with each actor contributing its own strengths. However, this does not mean fragmentation or dispersion. Provision of services is expanding in cooperation with the government on the one hand and with the Social Welfare Councils on the other. This is one of the most important features of community-based welfare in Japan.

4-5 The Frontline of Community-based Welfare

Welfare systems for the elderly in a broad sense are of course not limited to long-term care insurance system. They also include programs for the promotion of the social activities of the elderly provided under the Welfare Law for the Elderly and the health check and consultation services pursuant to the Health and Medical Service Law for the Elderly. In addition, improvement of the physical environment of the community is an important element in making towns and streets friendlier for the elderly. In accordance

⁷⁴ Editorial Committee on the Trends in Social Welfare (2004)

⁷⁵ For history, present situation and challenges of SWCs, see Sawada (1998) and Hirano et al. (2001).

⁷⁶ In the overall trend towards the introduction of market principles into care services, there are debates about SWCs competing with private-sector service providers. For this point and the roles to be played by the SWCs after the implementation of the Long-term Care Insurance Law, see Japan Medical Planning (2005).

with the Fundamental Law for People with Physical Disabilities of 1993 and the Law for the Promotion of Specified Buildings Easily Accessible to the Elderly, People with Physical Disabilities and the Like of 1994 (the so-called Heart Building Law), efforts are being made in this regard to remove any barriers to access from public facilities, commercial facilities and means of public transportation that are frequented by many people.⁷⁷ The above-mentioned measures are all planned and implemented by local governments within the framework of guidelines set by the central government. However, against the background of the diversification of welfare actors discussed earlier, the importance of municipal living support programs for the elderly is increasing independent of the national programs, together with welfare services offered by SWCs and NPOs and services provided by private businesses. In the limited space available below, an overview of services related to the long-term care insurance and some innovative services offered independently at the municipal level will be described.

4-5-1 Long-term care insurance and community-based welfare

The long-term care insurance currently in place in Japan seeks to provide a mechanism by which the elderly can maintain their daily social life in the familiar surroundings of their neighborhood through “community care services.” Home care, day-care and short stay services comprise the most typical of such services, which together are called the “three pillars of community care services.” In addition, there are transportation services to facilitate access to these services and rental services providing welfare equipment and apparatuses to assist care-receivers with disabilities.

These insurance-covered services are different from regular welfare services in that the family who gives care to the elderly is also covered. Another difference is that the service is provided under a partnership between the care facility and the family, as in the case of day-care and short stay services.

Furthermore, a new measure called “long-term care prevention programs” is being introduced in 2006. While the above-mentioned services at home or at care facilities are provided to the elderly people requiring support or long-term care, care prevention programs cover all members of the community (including the elderly people requiring support or long-term care). The idea behind this emphasis on prevention is to see to it well in advance that the elderly do not develop a condition that requires long-term care and to promote measures to prevent such conditions from worsening for as long as possible. More specifically, healthy elderly residents or the elderly residents who are in danger of requiring support or long-term care in the future are encouraged to take part in programs dealing with fall prevention, muscle strength preservation, nutrition improvements, dementia prevention, incontinence prevention, oral care, etc. Elderly residents with mild dementia or minor physical disabilities (Support Levels 1 and 2) are required to take part in these programs.⁷⁸

Such prevention and welfare promotion services have indeed been provided for some time in one way or another, but the 2005 revision of the Long-term Care Insurance Law to be implemented in 2006 gave them legal status and a greater emphasis. The emphasis on long-term care prevention is intended also for the purpose of curbing the growth in medical expenses paid out by the long-term care insurance, which go up as the level of service requirement becomes higher.

Lastly, the community-based services have been given a greater emphasis in the 2005 revision of the Long-term Care Insurance Law. Such services are intended to satisfy the variety of needs of the elderly residents by locating relatively small facilities within the radius of daily life activities so as to enable the elderly to maintain their way of life in a familiar environment. In specific terms, such services include the small-scale multipurpose homes, group homes for the elderly with dementia, day services for elderly with

⁷⁷ Cabinet Office (2005)

⁷⁸ The care prevention activities that are provided to the elderly who are not recognized as either “requiring support” or “requiring care” are called “community assistance programs,” and those provided to the elderly of Support Levels 1 and 2 are called “new prevention benefits.”

dementia, small-scale special elderly nursing homes, and night-time visits. To determine the location of such facilities, the concept of “daily life radius” has been introduced. It is to be defined by each municipality with due regard to the population, geographical conditions, transportation access, other social factors and the location of currently available long-term care facilities. The demand for care services in each such radius will be estimated, and care facilities will be constructed accordingly.

In the case of Chofu City in the Tokyo Metropolis where a field study was conducted, the plan is to construct facilities and provide services by dividing the entire city area into four large sections (north, south, east and west), ten basic areas (“welfare areas”) and 20 “living radiuses.” The four large sections have been determined by the Chofu City Basic Plan, the higher level city plan, rather than by the city’s elderly welfare plan. The ten basic areas are defined with consideration to the location of community care support centers, which totaled eight at the time of the field study, with two more to be operational by the end of fiscal 2006. The living radius, the smallest unit, is an area suitable for the residents in the neighborhood to maintain a sense of unity and carry out various community activities. In Chofu City, they overlap more or less with the primary school districts.

The revised Long-term Care Insurance Law calls for the establishment of “a regional comprehensive support center” for a population of approximately 20,000-30,000, with responsibilities for the management of long-term care prevention activities, consultations and assistance to the elderly and their families, protection of the rights of the elderly, including against abuse, and support for care managers. The city government of Chofu plans to meet this national directive by reorganizing and strengthening the existing community care support centers into the regional comprehensive support centers. Community care support centers have been engaged in the preparation of individual care plans in addition to care prevention activities. This is no longer possible after the revised Law came into force, and the reorganized centers are to specialize in long-term care prevention and consultation services. Regional comprehensive support centers are required to have at least one each of a certified social worker, certified health worker, and care manager. In the case of Chofu City, an official is to be assigned to every regional center in addition to the above three experts, to take charge of the Watch-out Service that will be discussed below.⁷⁹

4-5-2 Innovative activities by some communities

The services described so far are provided, in principle, in accordance with the framework of the long-term care insurance. Apart from these, a number of local governments, SWCs and private-sector organizations provide innovative services of their own.⁸⁰ As examples of such services, let us take a look at two cases of watch-out and assistance service to ensure the safety of the elderly in single person households: one each from a rural and an urban area. The first is the case of Nishisenboku-machi, Akita Prefecture, and the second Chofu City, Tokyo Metropolis.

(1) Watch-out network of Nishisenboku-machi, Akita Prefecture⁸¹

Nishisenboku-machi has a rapidly aging population. Its population was 10,897 in 2000 after having lost more than 10,000 residents in the preceding 15 years. The ratio of the population aged 65 and above to the total doubled from 14.1% to 28.5%. If the population continues to decline at this rate, the population

⁷⁹ This outline of long-term care insurance relies upon Editorial Committee on The Trend of Social Welfare (2004) and interviews at Chofu City Office.

⁸⁰ In Chofu City where the field study was conducted as part of the present research, a total of 42 activities for elderly welfare were implemented independent of the national programs by the City, Chofu Social Welfare Council, and Chofu Friendship Welfare Corporation (as of 2005). While some of them are eligible for long-term care insurance benefit, most are directed to relatively healthy elderly residents for preventive purposes such as pastime activities and outing (Elderly Welfare Section, Welfare Department, Chofu City (2005a)).

⁸¹ These cases rely on Otomo (1991).

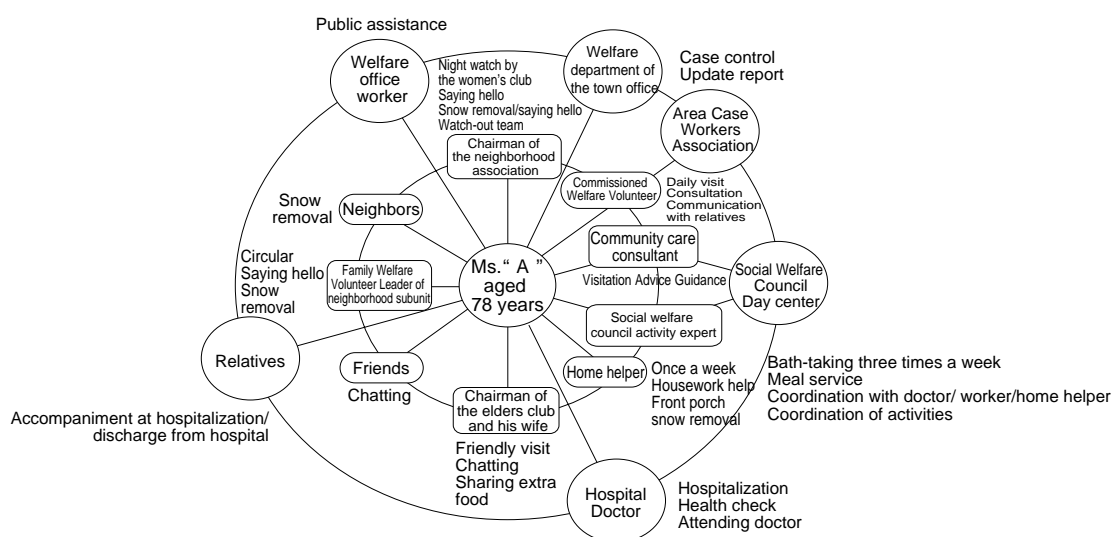
will be 6,940 in 2030 with an elderly ratio of 41%.⁸² A situation in which one out of three or four citizens is an old-age person is just around the corner. In snow-deep Nishisenboku-machi, it is extremely difficult for an elderly person to live alone. Since 1980, the township has constructed support networks for households with elderly persons that are in need of care. The following is an example of a person (“A”) who was able to extend her independent living with the help of these support networks.

She was 78 years old and was living alone and never married when the support networks began in 1983. She was self-reliant but her deteriorating eyesight made it necessary for her to receive housework assistance and meal catering as well as public assistance. Though basically self-reliant, not only was she an elderly living alone, but also she had an eyesight problem and hypertension. Worse still, she was not active in neighborly relations, and it was therefore difficult to expect ordinary spontaneous mutual assistance. To resolve this difficult situation, support networks were formed through a partnership between the Nishisenboku-machi SWC, commissioned welfare volunteer and the township with the cooperation of her neighbors.

First, the chairman of the neighborhood association (also a commissioned welfare volunteer), the chairman of the elders club and his spouse, and the leader of the neighborhood subunit (also a volunteer welfare staff of Nishisenbokumachi SWC) took the lead in undertaking the watch-out service to check on her condition by making daily visits and pass out town news circulars. Subsequently, a nearby youth club was invited to join in to do the snow shoveling work from the roof and around the house. Eventually she entered a special nursing home for the elderly as her physical conditions worsened, but the assistance provided through the networks allowed her to stay at her own home for two years after having survived a coma resulting from a stroke (she was found unconscious crouching over a kotatsu, a typical Japanese heating device).

It is worth noting in this particular case that the community (neighborhood), frontline welfare service providers and the representatives of organizations involved have established a well-coordinated seamless network of assistance (see Fig. 4-3). It should also be noted that the family and relatives played practically no roles in this case. Now that the number of households of the single elderly or an elderly couple is

Figure 4-3 An Example of Support Networks in Nishisenboku-machi, Akita Prefecture



Source: Otomo (1991) p.221

⁸² Statistics Bureau, Ministry of Internal Affairs and Communications 1986 and 2001, National Institute of Population and Social Security Research (2003).

increasing, the need for support networks such as these is indeed increasing. As this case suggests, women who have a longer life expectancy are more likely to live alone, and unmarried elderly women in particular tend to face long-term care problems.

(2) Watch-out networks of Chofu City, Tokyo Metropolis

The population of Chofu City, Tokyo Metropolis was 204,759 in 2000, having increased by approximately 24,000 in the preceding two decades (Statistics Bureau, Ministry of Internal Affairs and Communications 1981 and 2001). It is an “average” area, ranking twentieth in population size among the 50 cities and districts that comprise the Tokyo Metropolis. The elderly population ratio (65 years and above) was 14.3%, slightly lower than the Metropolitan average of 15.8%. It is projected to go up to 21.6% in 2015 and 24.2% in 2030 (Statistics Bureau, Ministry of Internal Affairs and Communications 1981 and 2001, National Institute of Population and Social Security Research 2003). The city has introduced around-the-clock watch-out service networks of its own called “*Mimamoto*,” which seek to ensure the security and safety of the elderly living alone who tend to be isolated in the community as well as the elderly who are alone at home during the day, the physically disabled and the needy.⁸³

To provide community-based services, as mentioned earlier, Chofu City is implementing welfare facilities by dividing the city into four large sections (“daily life areas”) of north, south, east and west, ten basic areas (“welfare areas”), and 20 “living radiuses.” The living radius corresponds to a primary school district more or less, and each of the ten basic areas has a community care support center (to be promoted to the level of regional comprehensive support center).

The system of Chofu City is structured on the basis of these ten basic areas as a unit. Collaborators in the area (neighborhood associations, elderly clubs, storeowners associations, community clinics and pharmacies, convenience stores, newspaper delivery shops, welfare facilities, commissioned welfare and child welfare workers, schools, etc.) who detect any irregularity concerning an elderly resident report it to the community care support center of the area, which in turn responds to the situation in cooperation with the Welfare Section of the city government, police department, fire station and any other relevant bodies. A pilot project was carried out in 2003, and the official project inauguration was in 2004. The system is to be introduced to the entire city by the end of 2008.

It was felt that the *Mimamoto* Network was needed due to the increasing number of households consisting of the elderly living alone or as an elderly couple; It was also felt necessary because, with the attenuation of neighborly relationships in the city, the traditional networks of mutual assistance had become ineffective as a means of ensuring security for the elderly. Though not unusual in any major city, the sense of unity among community members is becoming weaker and weaker as a result of the frequent inflow and outflow of the residents. According to the 2000 census, 26% of the city’s population had moved in during the preceding five years. When intra-city migration is added, as much as 43% of the population changed residence some time in the five-year period. When considering that such a dramatic change is occurring in the midst of a rapidly aging population, it is fair to say that the time has come for cities to proactively construct some organized and well-structured system of ensuring community safety assistance. The initiatives of Chofu City can certainly be regarded as a forerunner of this attempt.

It should be remembered that such a watch-out and reporting system could conflict with the protection of privacy. The purpose of the *Mimamoto* Network is to offer “soft attention” and “moderate intervention.” It is by no means intended to “monitor the elderly or enforce welfare services, but rather to open the door to the kind of welfare services that best suits the lifestyle of the elderly resident while honoring with the

⁸³ Elderly Welfare Section, Welfare Department, Chofu City (2005b). The activities of Chofu City were obtained through interviews with the Elderly Welfare Section of Chofu City. The author expresses gratitude to the city officials who kindly shared information with us.

highest respect his/her dignity as an individual.”⁸⁴ In the face of increasing awareness among city dwellers concerning the protection of personal information and privacy, it is yet to be seen how the *Mimamoto* Network will evolve in the years ahead.

4-6 Current Situation of Aging in Asia and Some Responses

The situation of the aging of the population in Asian developing countries is so diverse that no generalization would be in order. There are not necessarily many studies on social security systems in Asia either.⁸⁵ The situation of the recent trends in the aging of the population and changes in the family structure will therefore now be discussed, primarily based on UN and other sources. The findings of a field study the author conducted in fiscal 2005 in Thailand, the Philippines and Indonesia are summarized in Annex 2.

4-6-1 Aging of the population in Asia

On a global basis, the ratio of the elderly to the total population is projected to rise from 10% in 2000 to 20% in 2050 (see Table 4-5). This aging is projected to progress at a considerable rate in developed countries, particular in Europe (35% in 2050). Aging of the population is progressing steadily in developing countries, with all regions of the world having an elderly ratio of over 20% by 2050, with the exception of Africa. It should be noted that, in addition to the increase in the overall ratio of the elderly to the total population, a larger number of elderly people will be getting older. Between 2000 and 2050 the proportion of people aged 80 and above from among those people aged 60 and above will rise from 16% to 29% in developed countries and from 9% to 17% in developing countries. This proportion will be nearly 20% or higher for all regions of the world except Africa in 2050.

Table 4-6 shows the share of each region in the incremental elderly population in the world, rather than the elderly ratio we have discussed above. Developing countries accounted for 66% of the incremental elderly population of the world for the period 1950-2000, and 56% was due to the increase in Asia. This tendency is expected to accelerate in the succeeding half century, with developing countries accounting for 88% of the increase in the world’s elderly population and with Asia accounting for 67%. Thus, the aging of developing countries is also progressing rapidly as a share of global aging. In Asia in particular, it is necessary to address two issues simultaneously, namely, the further aging of the elderly population and the

Table 4-5 Elderly population by region of the world

Year	60 years and above (million)			Share of the total population (%)			80 years and above (million)			Share of the population 60 years and above (%)		
	1950	2000	2050	1950	2000	2050	1950	2000	2050	1950	2000	2050
World	205	606	1,907	8	10	21	14	69	377	7	11	20
Developed countries	95	232	394	12	19	32	9	37	113	9	16	29
Developing countries	110	375	1,514	6	8	20	5	32	265	5	9	17
Africa	12	40	183	5	5	10	1	3	20	5	7	11
Asia	95	322	1,191	7	9	23	4	29	224	5	9	19
Europe	66	147	222	12	20	35	6	21	60	9	14	27
Latin America and the Caribbean	10	42	184	6	8	24	1	5	38	7	12	21
North America	21	51	117	12	16	26	2	10	33	9	20	28
Oceania	1	4	11	11	13	25	0	1	3	9	17	25

Source: United Nations (2005)

⁸⁴ Elderly Welfare Section, Welfare Department, Chofu City (2005b)

⁸⁵ For studies on social security in Asia, see Sha (2004).

Table 4-6 Increase of population aged 60 years and above and the breakdown by region

	Increase of population during 1950-2000 (million)	Increase of population during 2000-2050 (million)	Regional breakdown 1950-2000 (%)	Regional breakdown 2000-2050 (%)
World	401	1,301	100.0	100.0
Developed countries	137	162	34.2	12.5
Developing countries	265	1,139	66.1	87.5
Africa	28	143	7.0	11.0
Asia	227	869	56.6	66.8
Europe	81	75	20.2	5.8
Latin America and the Caribbean	32	142	8.0	10.9
North America	30	66	7.5	5.1
Oceania	3	7	0.7	0.5

Source: Computed from Table 4-5.

Table 4-7 Ratio of single elders aged 60 years and above
(%)

	Female	Male
World	19	8
Africa	11	6
Asia	9	5
Europe	35	13
Latin America and Caribbean	10	7
North America	34	15
Oceania	34	16

Source: United Nations (2005)

sheer increase in the size of the elderly population.

4-6-2 Aging and the household structure

There is an impending need to establish social security systems in order to support the rapidly increasing number of the elderly. However, in many developing countries in Asia, it is next to impossible to establish a state-run health insurance system for the entire population, although some form of public social security system does exist.⁸⁶ Here lies the significance of shedding new light to the informal mechanisms of mutual assistance. Taking care of the life of the elderly has been traditionally considered a role of the family in many Asian countries. What are the realities today?

Table 4-7 shows the percentage of the elderly aged 60 or older in single households.⁸⁷ As is clear from this table, only less than 10% of elderly women in Asia live alone, while approximately one out of three of their counterparts in Europe, North America and Oceania live alone. The same pattern is observed with respect to elderly males. By sex, there are more women living alone than men in all regions. This is believed to be due to the difference in life expectancy that creates more widows than widowers.

The family structures of the elderly are summarized in Table 4-8, expressed in terms of family members living together. Asia in this table is broken down into sub-regions. As mentioned earlier, developed countries tend to have a higher proportion of the elderly living alone, while developing countries

⁸⁶ For an overview of social security systems in Asia, see Hiroi and Komamura ed. (2003) and National Institute of Population Social Security Research (2001), No.135 "Asia and Social Security."

⁸⁷ This table has been prepared from various estimates based on census and sample studies extending from the 1980s to the year 2000. For details, see United Nations (2005).

Table 4-8 Living arrangements of the elderly aged 60 and above

(%)

	Single	Elderly couple only	With children/ grandchildren	With other relatives or unrelated	Total
World	14	25	56	5	100
Developed countries	25	43	27	5	100
Developing countries	7	13	75	5	100
Africa	8	9	74	8	100
Asia	7	16	74	4	100
East Asia	9	20	70	1	100
Southeast Asia	6	13	73	9	100
South/Central Asia	4	9	83		100
West Asia	9	25	61	4	100
Europe	26	43	26	4	100
Latin America and Caribbean	9	16	62	14	100
North America	26	47	19	8	100

Source: United Nations (2005)

generally have a higher proportion of the elderly living with family members. The proportion of the elderly living alone is less than 10% in all the sub-regions of Asia, and it is particularly low in Southeast Asia and South/Central Asia. South/Central Asia has the highest proportion of the elderly living with their children and grandchildren in the world.

As is already clear, the elderly in Asia even today still spend their life as seniors basically with the family, especially with the family of their child, as the norm. This is in stark contrast to their counterparts in Europe and North America. There is, however, room for argument as to whether this is due to cultural reasons or not. In the West, too, the proportion of elderly people living with their children was previously similar to that of developing countries today. It has come down to the present level gradually from the 19th century to early 20th century.⁸⁸ Behind this change were the decline in the agricultural population and the increase in the number of wage workers that occurred in the course of industrial development.

As we saw in Table 4-2 (Living arrangements of the elderly aged 65 years and above: China, Korea, Taiwan), the Asian pattern of living arrangements is dramatically changing in countries experiencing rapid economic progress. During the field study in the Philippines, Indonesia and Thailand, the author was told repeatedly that the family ties and relationships among relatives were becoming considerably weaker and more distant. It is believed to be necessary to take the perspective that social security policies dependent on traditional family and community ties will sooner or later face limitations in East Asia, Southeast Asia and other regions experiencing high economic growth, although this trend may not have appeared in the statistics. The time seems to be approaching for Asian countries to work out new frameworks for the social welfare of the elderly, rather than simply relying on traditional social systems or attempting to revive or revitalize traditional social relationships. The Japanese concept of community-based welfare may provide an avenue for such a framework.

4-7 Japan's Community-based Welfare and Asia

In rapidly aging Japan, policy measures to address aging problems have been implemented centering on the keyword of "community-based welfare." Japan's community-based welfare has passed the conceptual stage and is being put into practice in a coordinated manner with a legal basis. It should be noted that the focus on community-based welfare is not an isolated phenomenon in the welfare field alone;

⁸⁸ United Nations (2005) pp. 5-14

it reflects the increasingly strong interest in self-governance and decentralization. The Social Welfare Law and the Long-term Care Insurance Law that came into effect in 2000 embody this trend. The Long-term Care Insurance Law was initially intended to achieve community-based welfare through “community care services” but beginning with fiscal 2006, it was given the additional dimensions of “long-term care prevention” and “community-based services” in an effort to make the system sustainable and bring the ideal to a new horizon. Local governments are not only reacting to the above-described changes, but are also proactively providing a large variety of community-specific welfare services in addition to those prescribed under the insurance system.

What are the implications of Japan’s experience for the developing countries in Asia? No generalization is possible, since Asian countries have different levels of economic development, family structures, demographic structures and social security systems. Neither is it possible, as mentioned at the outset, for these countries to introduce European style social security models any time soon. By the same token, only a small portion of the population would be able to enjoy the benefits of US-style market-oriented welfare models, even if the private-sector insurance market should expand in the future. In view of such a situation in developing countries and based on its own experience of overseas assistance since the 1990s, the World Bank advocates a multi-pillar social security model.⁸⁹

The World Bank model calls for designing a social pension system with due consideration to the most optimum mix of demogrant/social pensions, public pensions, private pensions, informal “social security” provided by the family and community, other health care services and personal assets, after carefully taking into account the history, traditions and culture of the country. Of these factors, the demogrant/social pension and the social security function performed by the family and community are receiving greater attention in recent years. However, this model does not make concrete proposals on how to utilize the social security functions of the family and community or how to maintain and strengthen local communities that are becoming less coherent in the tide of modernization. In this sense, Japan’s long-term care insurance system and other community-based welfare measures present a model that leads the world in the kind of multi-pillar approach that is proposed by the World Bank.⁹⁰

As we have seen in this Chapter, Japan’s community-based welfare does not pursue a simple revival of traditional local communities. The changes that urbanization and industrialization have brought to families and communities are largely irreversible. Revival of the traditional community is no longer a realistic goal. The objective of Japan’s community-based welfare is to structure a mechanism by which the administrative agencies, residents, and private-sector organizations, both for profit and not for profit, work in concert to help the elderly maintain a self-reliant life. It should be emphasized that participation is not obligatory and based only on voluntary will.⁹¹

The present situation of elderly welfare in Japan offers a concrete answer to the issue of informal social security that the World Bank model has left unanswered. It underscores the importance of maintaining and reinforcing such informal social security systems through long-term care insurance and other formal social systems. For this reason, Japan’s community-based welfare system is believed to have many ramifications for the developing countries of Asia that are experiencing the rapid aging of their populations.

It is of course too naïve to believe that the Japanese experience can or should be transplanted directly

⁸⁹ Holzmann and Hinz (2005) and see Table 3-11, Chapter 3 of this paper.

⁹⁰ In this chapter, the positive aspects of long-term care insurance, the main pillar of Japan’s community-based welfare, are mainly discussed here in the context of its possible ramifications for the aging issue in Asia. In its practical implementation, however, the system is of course not free of challenges. For an overview of the background to and problems of long-term care insurance, see Ito (2003), Sugisawa, Nakatani and Sugihara (2005), Masuda (2004), etc.

⁹¹ This point is clearly pointed out by Isamu Kaneko. He argues that resident participation is important for building a welfare community, and that the voluntary will to participate and respect for diversity in views are no less important at all (Kaneko (1993)).

to developing countries. This is because Japan's community-based welfare is a highly sophisticated system that has been structured over a long period based on the administrative regime and performance of Japan. In addition, it has evolved to today's decentralized system of community-based welfare after many years of social welfare efforts undertaken as a responsibility of the national government. In the case of the developing countries, however, the introduction of a self-reliant community welfare system has the aspect of being the only viable option, since no state-run system is likely to be constructed and maintained any time soon, be it taxation-based or insurance-based. The presence of more vigorous social relationships in local communities in many Asian developing countries could prove to be an advantage in introducing a community-based social security system.

Attached to the end of this paper is a summary of the findings from a field study carried out in August 2005 in three Asian countries (see Annex 2). It makes reference to the activities of HelpAge, an international NGO. Currently many domestic and international NGOs are at work in helping in the life of the elderly in these countries. Perhaps, as an initial and a realistic step, the experience of such private-sector non-profit organizations may be utilized, in cooperation with traditional local community organizations and volunteers, to build welfare networks for assistance to the elderly in the communities of developing countries. However, as the Japanese experience suggests, the presence of a central private-sector organization like the Social Welfare Councils in Japan may be necessary for the stable management of such a system, in addition to the initiatives of the public sector. In view of the inadequate national social security system in many Asian developing countries, the Japanese experience suggests, therefore, that Asian developing countries might as well (1) build welfare networks at a community level by making use of local informal resources, and (2) gradually bolster these by introducing a formal insurance system such as Japan's long-term care insurance system.

The introduction of a long-term care insurance system is conditional on many factors including: administrative and managerial expertise to process insurance businesses and determine the required level of services, the hiring and training of care managers who prepare individual care service plans, and the fostering of home care service providers. Many of these conditions are just non-existent in developing countries now. However, considering that long-term care insurance is a regional insurance program, it would be more acceptable to local community residents regarding its costs and benefits than a national social security system, and hence it should be easier to gain the support of the residents when implementing it.

There are a number of perspectives from which to analyze the issue of old-age security. This chapter has reviewed the concepts and practices of Japan's community-based welfare from the perspective that the welfare of the elderly is an issue challenging their daily life that has to be solved within the vicinity of where they live. The specific examples described in this chapter may well contain many clues to providing assistance to the elderly residents of local communities in Asia. However, one should be aware that local conditions must be taken into due consideration when taking advantage of any such clues.

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Chapter 5

Recommendations with a Focus on Countermeasures to deal with the Problems of an Aging Population

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This chapter builds on the discussions of the preceding chapters to examine a number of issues that the international community will be required to address in connection with the population dynamics of developing countries in the coming years. A special focus will be placed on the measures that will be required to address the aging issue.

5-1 The Need for Measures to deal with the Issue of the Aging of the Population

As was seen in the preceding chapters, the population dynamics of developing countries are sure to reveal their impact in the near future, though this is not yet so evident at the present time. For instance, the elderly population of China will grow at an average annual rate of 3.0% during the period 2005 to 2030, while that of Thailand will grow at a faster rate of 3.8%. The two countries are literally entering the stage of an “elderly population explosion.” In Chapter 3, the possible directions for social security systems that might be taken by Thailand, China and other developing countries were reviewed. It is also important that the support by the international community play an important role in this effort. The life cycle hypothesis model will again be used to further analyze this point.

First let us consider the question of international assistance to a developing country that finds itself at the stage of a population explosion. As mentioned before, a country suffering from a population explosion has a high ratio of young dependent people to the total population and the society has to bear a heavy burden in raising these children (see Fig.5-1). The rate of domestic savings remains low, and the

Figure 5-1 Life cycle hypothesis model and the demographic pyramid at the stage of population explosion

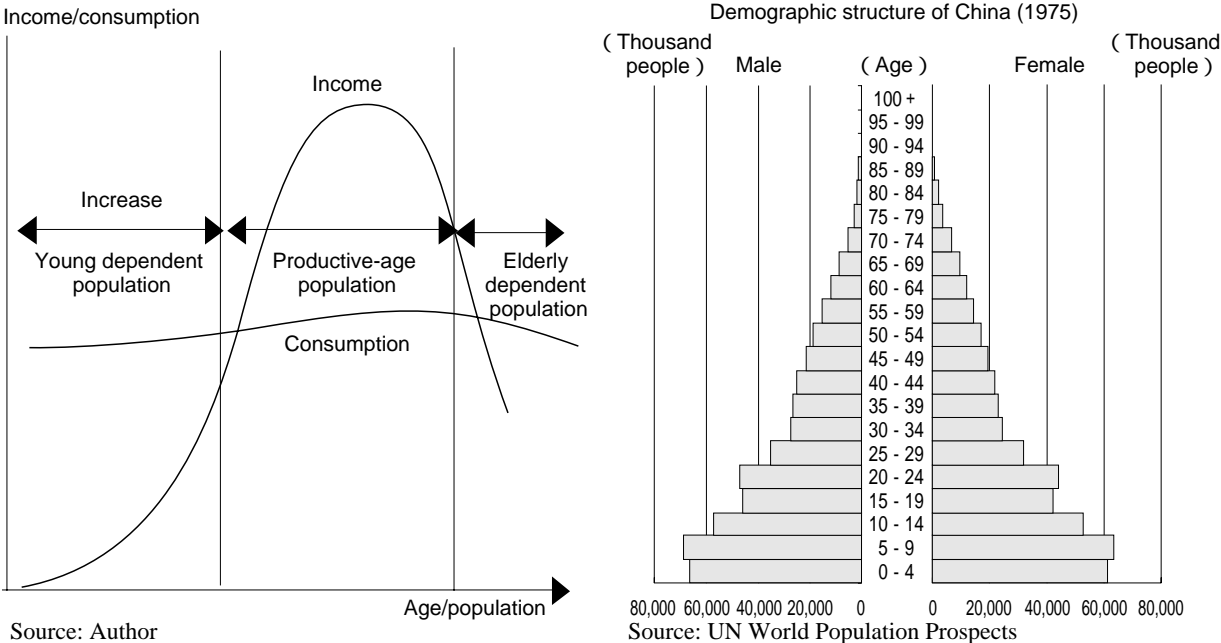
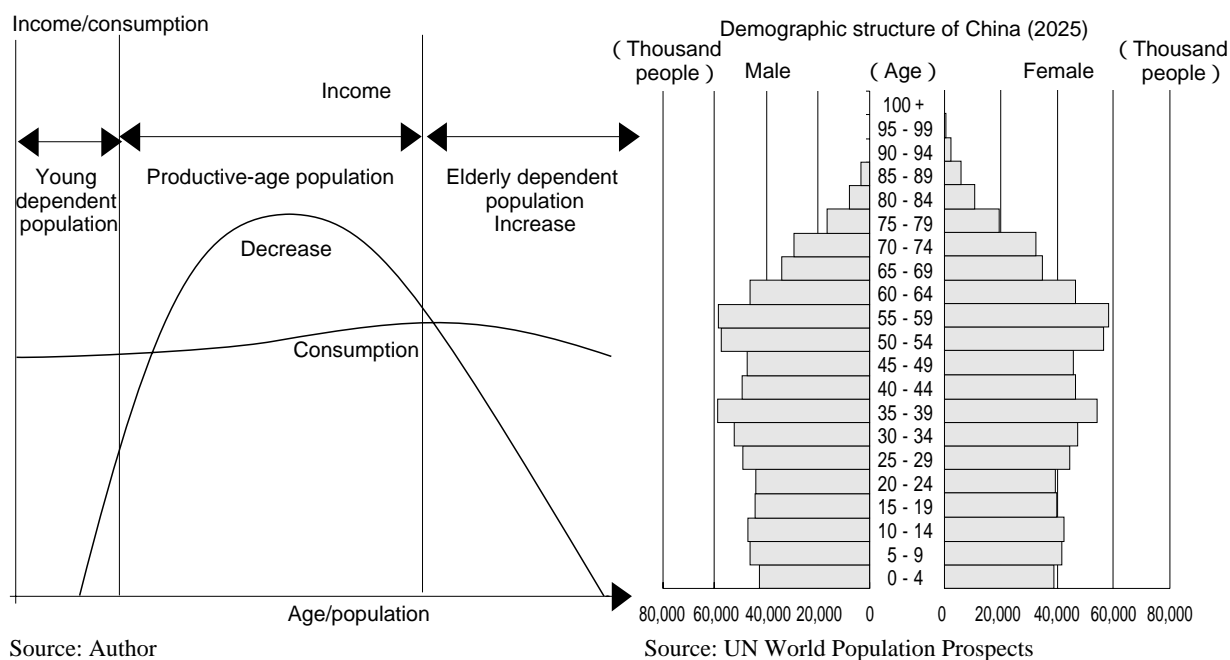


Figure 5-2 Life cycle hypothesis model and demographic pyramid at the stage of population aging



international balance of payments deteriorates since funds have to be introduced from overseas. Should even such borrowing not allow people to maintain a basic level of consumption, the lives of their infants and children will be placed in jeopardy. To safeguard their right to life, international assistance programs directed to countries at the stage of a population explosion must be designed to ensure that the ultimate beneficiaries are the infants and children.

Let us now consider the question of aging in developing countries in a similar way. The gap between the income and consumption of the elderly must be financed somehow (see Fig.5-2). The life cycle hypothesis assumes that the elderly finance this gap by withdrawing from the savings that they have accumulated for themselves during their active life. However, it is unrealistic to expect that many aged persons in developing countries will have enough savings for their retired life. If this is really the case, a portion of the savings of the currently active population would need to be transferred to the elderly through social security systems and other conduits. It could well be the case in developing countries, however, that the income levels of the currently active generation are not sufficient to support the shortfall in income faced by the elderly. Under such circumstances, the life of the elderly could be in jeopardy just as much as that of children in a country with a population explosion. Efforts are thus required to protect the right to life of the elderly.

The way the society responds to this problem of the elderly will be naturally different from that when responding to the needs of children. The elderly can earn income through self-help efforts and maintain a living by participating in the society. It is not appropriate to regard all aged people as socially vulnerable. In recently years, there has been a global trend to divide the elderly population into “young elderly” (aged 65 through 74) and “senior elderly” (aged 75 and above). A common understanding is emerging internationally that the former age group can still work and take part in various social activities and hence “participation” rather than “protection” should be the perspective from which any policy measures for the elderly should be formulated and implemented.

There is no denying nonetheless that the opportunities and abilities of elderly people to work and participate in social activities diminishes with age and the chances increase that they will need to be taken

Table 5-1 Changing composition of the elderly population (China)

(Thousand people, %)

	2000	2005	2010	2020	2030	2040	2050
65 years and above	87,229 (6.8)	100,020 (7.6)	112,213 (8.3)	169,354 (11.9)	236,172 (16.3)	319,372 (22.3)	329,102 (23.6)
65 - 74 years old	60,106 (4.7)	66,563 (5.1)	71,333 (5.3)	115,196 (8.1)	146,183 (10.1)	191,550 (13.4)	154,283 (11.1)
75 years and above	27,123 (2.1)	33,457 (2.5)	40,880 (3.0)	54,158 (3.8)	89,989 (6.2)	127,822 (8.9)	174,819 (12.6)

Note: upper = population, lower = proportion of the total population

Source: UN World Population Prospects

care of by others. The welfare needs of the “senior elderly” are diverse and expensive to meet; the burden the society has to bear is greater than for the “young elderly.” Therefore a closer focus should perhaps be directed towards the “senior elderly” when considering the issue of population aging in developing countries. In addition, a large majority of the “senior elderly” are women since women generally have a longer life expectancy than men. For those who were not blessed with opportunities to gain stable employment or accumulate savings during their active life, it is quite difficult for them to earn income to support their elderly life. In the worst cases, their very survival could be in peril.⁹²

Perhaps more alarming than the rising proportion of the “senior elderly” in the total population is the increase in the number of “senior elderly” per se. The “senior elderly” population in China, for example, is projected to rise from 27.12 million in 2000 to 40.88 million in 2010, 89.99 million in 2030 and to 174.82 million in 2050 (see Table 5-1). It will be extremely difficult for the public sector in the developing countries to develop a fiscal base that is sufficient to assist such a large number of “senior elderly.” The purpose of overseas development assistance will be compromised in the face of the sheer size of the elderly population.

It appears that China and Thailand have elected to refrain from introducing full-scale social security systems in the belief that this would discourage economic growth. However, economic development over the long term requires social stability, which is difficult to attain without policy measures to deal with the aging of the population and without the construction of effective and sustainable social security systems. In the face of the projected rapid increase in the number of “senior elderly,” it will be too late to consider policy measures when the problems begin to show. Already during the period of the demographic dividend, measures should be determined and implemented to reduce the burden of the aging population. In other words, while the population explosion in developing countries should continue to be addressed as a major challenge, it is equally important to begin structuring from an early stage a framework of official assistance through the introduction of social security systems as well as developing the bases for community-level elderly care in which the residents play a major role.

5-2 Role of Japan

The World Assembly on Aging in Vienna in 1982 adopted an International Plan of Action on Aging. The Vienna Plan contains 118 principles and 62 recommendations in the areas of health and nutrition, the protection of elderly consumers, housing and the environment, family affairs, social welfare, income security and employment, education, international information exchange and research cooperation. The Plan of Action had sufficient substance to provide guidelines for each country to design and implement

⁹² Jung (2004) p.7

measures to deal with the aging of the population. However, some say that it was so detailed that policymakers and those involved with the aging issue have found it difficult to put them into practice.⁹³

The Vienna Plan was followed by the United Nations resolutions on the “Implementation of the International Plan of Action on Ageing” and the “Proclamation on Ageing” (1992), the “International Year of Older Persons” (1999) and the announcement of the “International Plan of Action on Ageing and the UN Principles for Older Persons” (1999). Through this process the need to revisit the Vienna Plan was felt, and in 2002, two decades after the Vienna Assembly, the Second World Assembly on Ageing was held in Madrid.⁹⁴ A major difference between the first and second Assemblies is the focus on developing countries. While the First Assembly proceeded with strong attention to the issue of aging in developed countries and economies, the Second Assembly recognized aging as a global challenge (Global Aging) and focused on the problems of aging in developing countries.

Many countries have great expectations for the contribution that Japan can make, the nation that is experiencing the most drastic aging of its population in the world. However, there is no denying that Japan’s information dissemination and contributions to the world on the issue of aging have been less than ideal.

As was seen earlier, it is clear that the aging of the population will accelerate in developing countries if the decline in the birthrate continues. The burden this will create will be excessive for developing countries to bear with their low level of income. It is very important to make preparations in advance in order to ensure a smooth transition to an aging society. Japan is expected to play a major role since East Asia is also the region of the world where the projected aging of the population is most dramatic.

5-3 Desirable Cooperation with Developing Countries with regard to the Aging of the Population

This section will review how Japan’s cooperation with developing countries, especially with those in Asia, should be provided with respect to the issue of aging. The nature and process of the economic and social distortions that are brought about by population dynamics have already been pointed out, and allusion has been made to a number of specific ways in which these problems should be addressed. Rather than summarizing and repeating these recommendations, the principles that should govern Japan’s future cooperation will be discussed here.

5-3-1 Approaches to future development challenges

One of the prerequisites in relation to the consideration of cooperation with developing countries is that the recipient country itself has a clear recognition of its development challenges and is taking the initiative in solving them on its own. It is only after the directions for action have been set and the necessary resources and knowledge identified that the introduction of outside resources and knowledge should be considered. A basic premise of any initiative to deal with the aging of the population with a declining birthrate is that the very developing countries that will suffer the consequences should have a clear understanding of the challenges involved.

However, is the extent of the socioeconomic impact of aging correctly understood in developing countries? Many developing countries fall short of directing sufficient resources to the issues that are already explicit and visible. It is extremely difficult to expect these countries to sufficiently plan measures to deal with problems that will not become apparent until some decades later. It is feared that not many countries are even aware of the gravity of the issue.

In the international community, on the other hand, efforts are being made to achieve the Millennium

⁹³ Yokota (2001)

⁹⁴ For details of the Madrid Assembly, visit <http://www.un.org/esa/socdev/ageing/waa/index.html>.

Development Goals with 2015 as the target year. However, unfortunately, little attention is being paid to the new kinds of development challenges that are likely to emerge thereafter. Even at the World Bank, its interest in population dynamics has been motivated by the need to design social security systems. The need for preparedness to meet the development challenges of some decades into the future has been understood by the World Bank only recently.⁹⁵

The need to make sufficient preparation to alleviate the impact of problems that are to emerge some decades later can be easily understood when one takes a look at Japan's experience in the reform of its social security systems and other measures to address the issue of the aging of the population with a declining birthrate. Japan is in a unique position to be able to send a message to developing countries concerning the importance of preparedness by informing others of its own experience. Among the developing countries that are expected to experience the aging of their population more rapidly than Japan are the NIEs, where the impact will likely present itself differently both in form and magnitude. These countries will have to prepare their own designs concerning their socioeconomic structure and social security systems, taking lessons from the experience of forerunner countries. In other words, an intrinsic problem-solution process is required. Japan should play the role of setting the stage for the encouragement of such an autonomous process of problem solving and continue to render indirect support on a medium-term to long-term basis. Such facilitation will encourage developing countries to become fully aware of the problem and share Japanese experience of the need to initiate a self-sustained solution process of their own. Requests for specific technical cooperation projects will arise in the course of such a process.

5-3-2 Offering opportunities for problem recognition

Given the fact that Japan itself is still in search of definitive solutions to addressing the issues of its own aging population, the first step in facilitation should be to offer to its Asian partners a "forum" for discussion or knowledge sharing on measures to deal with the aging of the population. The idea of an Asian Community of "Think Together, Walk Together" that is advocated by Prime Minister Koizumi should be converted into concrete action to address the aging issue. Japanese leadership in providing such fora for dialogue will certainly be conducive to the formation of common ground and a pool of knowledge that is needed most in building an Asian Community. It is also believed that the impact upon Asian countries will more likely be greater if the message comes from Japan rather than anywhere else.

The transition from a welfare state to a welfare society is a daunting challenge for both developed and developing countries. It can be stated as a task concerning which both developed and developing countries can present ideas on how to ensure that it happens smoothly. The conventional approach of Japanese cooperation has been to transfer technologies and offer its experience to developing countries in Asia. It is necessary to remember that efforts to address the issues of a rapidly declining birthrate and the resulting aging of the population in East Asia could prove useful for Japan in addressing its own problems of an aging society.

In addition, such efforts should not be left to the central governments alone. Joint efforts and interchanges among local governments, think tanks, NGOs and civil society are also essential. Opportunities for information exchanges, knowledge sharing and dialogue among these diverse actors are very important. Hiroi and Komamura ed. (2003) advocates the creation of an "Asian Welfare Network" to bring the issue of social security closer to Asia and to promote mutual cooperation and alliances among governments and NGOs/NPOs on this issue. In recent years, the relationship between Japan and East Asian

⁹⁵ The subtitle of the World Development Report 2007 is Development and the Next Generation. Taking the projected demographic dynamics into consideration, the report discusses the nature and types of assistance to be provided to the young people who will be shouldering the development process in the next generation. Unfortunately, little consideration is given to the development challenges that are sure to emerge when the current productive-age population becomes old.

countries is said to be changing from one of an assistance provider to recipients, to one based on partnerships. Joint efforts to address the rapid population aging with a declining birthrate, to design and implement social security systems and to create sustainable communities would indeed be a truly future-oriented form of regional cooperation based on the spirit of partnership.

5-3-3 Understanding Japanese experience and sharing it with others

Japan is in the midst of addressing problems of its own with regard to the aging of its own population, and no definitive solutions have yet been found. It is still true that Japan has accumulated substantial experience, both encouraging and bitter, on pension reforms, long-term care for the elderly, health care insurance, community-based welfare and other challenges that today's developing countries will also surely face when their populations become old. It is very important that this experience be summarized in an organized manner and made available for the formulation of development strategies in Asia.

In 2004 JICA compiled the Japanese experience in social security.⁹⁶ While this study was focused on the social security system, more efforts are needed to systematically compile the broader experience of Japan, including its extensive experience in social welfare systems, community-based welfare and employment promotion. In particular, the initiatives referred to in Chapter 4 that have been taken by the residents in implementing community-based welfare deserve close scrutiny and analysis with regard to their genesis and the development process as well as the reasons for their success.

Many developing countries that will be preparing designs for their social security systems will be able to determine a system that best fits their specific conditions and requirements by comparing them with the Japanese experience, as well as that of Korea, Taiwan and other NIEs, in addition to the experience of other developing countries. The "fora" mentioned in the preceding paragraph should not be just bilateral between Japan and the recipient countries, but rather multilateral where representatives from a number of countries bring their experience to collaborate and engage in multi-faceted intellectual interactions.

5-3-4 Attention to comprehensive policy measures

As the aging of the population advances throughout the world, it is quite probable that Japan will increasingly receive requests for assistance from developing countries in the field of measures for the elderly. Health care, pensions and other aging-related burdens on the society will increase dramatically, as has been the case in Japan. The gravity of the burden makes it necessary for social security and a welfare society to be designed from a comprehensive perspective. Structuring systems for health care, pensions and long-term care in a piecemeal fashion would be a patchwork approach, and could result in unexpectedly severe consequences due to the alienation of those who are not protected under the piecemeal systems. Japan's cooperation with developing countries in the field of the aging of the population has been rather limited to date. However, if assistance is extended on a "requested project basis" by the government agency to which the request has been made, there is a possibility that easily accomplished projects focusing on specific components will be given the go-ahead without full consideration of the overall assistance framework.

Throughout this paper, the emphasis has been on the importance of first discussing the economic and social visions of the country in the face of the approaching aging of its society, and then determining policy measures to address the problems of the aging of the population, especially the design of social security systems. Assistance to specific projects should be made only within this broader framework, and the risk of rendering isolated specific assistance to a country without a firm stance in the direction of social security reforms should be kept in mind.

⁹⁶ JICA IFIC (2004)

5-3-5 Involvement in policy implementation for maximization of the demographic dividend

This chapter has so far discussed the importance of designing a social security system, introducing community-based welfare initiatives and otherwise building mechanisms to aid the elderly directly based on the notion that aging is a development challenge for the future. While the aging problem is regarded as a development challenge for the future, it is indeed not easy to identify the present requirements for assistance. However, if they are considered to be related closely to the challenges that developing countries are faced with today, considerations from the viewpoint of population dynamics should be included within the process of addressing current problems. This requires, for examples infrastructure improvements, education and systems design for the domestic financial market that has been referred to in Chapter 3.

As has been pointed out in Chapter 1, Chapter 2 and elsewhere in this paper, the macroeconomic challenges for developing countries, from the perspective of population dynamics, is to implement measures that will allow them to enjoy the benefits of the “demographic dividend” to the fullest extent. When translating this into the personal level of a “life cycle hypothesis,” it is important to maximize income during the period when the productive-age population is at its highest level, as illustrated in Fig. 5-1 and 5-2. There have to be plenty of opportunities to earn a better income to make this happen. The country therefore has to have economic development strategies that ensure a high degree of employment absorption.

Japan’s ODA has been traditionally oriented toward the formulation and design of policy measures and institutions as well as the capability to implement them. Few ODA programs were directed outright to the issue of employment opportunities in developing countries, including those in the private sector and informal sector. Japan should assist the efforts of developing countries to enhance employment and income improvement opportunities. Such efforts should include supplying the workforce with sufficient capability with regard to techniques and technology in accordance with the demand for labor, the abolition of the distorted availability of information in the labor market through improvements in job matching schemes, and improvements in the work environment through the promotion of corporate governance.

5-4 Dissemination of the Concept of Community-based Welfare and Consideration of the Means of Measuring “Social Quality”

As discussed in Chapter 3 and Chapter 4, the implementation of policies and systems is already in progress in Japan for the promotion of community-based welfare. A major challenge in making community-based welfare a common model to deal with problems of the aging of the population in Asia is to ensure that the communities in need of measures to deal with the aging of the population have the capacity to adopt and execute community-based welfare programs by themselves. Even if the traditional or autonomous civil society in Asia is capable of shouldering some share of the burden of social security, the question remains as to whether the civil society is of a sufficient size to provide the required variety of social security services. In some cases, it may be necessary to provide a larger framework that will allow different civil society organizations to form alliances to render services effectively. Attempts to introduce Japanese-type community-based welfare into communities without a sufficient base to receive it are unlikely to result in sustainable systems. There are neither established indexes that would indicate the capacity required of communities nor methods to measure them.

In the European Union, a “Social Quality” project to research and study the social structures of the member states was inaugurated with a view to achieving social integration, which is the essence of the EU. This effort to understand the present situation and the characteristics of the EU and the society, as well as the possibility of social integration, is important in this age of globalization as well as from the standpoint of effectively extending social development assistance. However, neither the concept of a “society” conceived in Europe nor the methodology used for measuring its quality are directly applicable to Asia,

which has a different process of community formation. While attention should continue to be paid to the future progress of research and studies in Europe, it is incumbent on Japanese and Asian researchers to study the question of social quality in the Asian context in cooperation with the civil society of each country.

5-5 Challenges for the Future

Finally two topics should be mentioned that could not be discussed extensively in this paper.

The first is the international migration. For the purpose of simplifying the discussions and analysis, the population dynamics described in this paper are based on the assumption that a person grows up and becomes old in the same country in which they were born. Little attention has been paid to the impact of the international migration. The experience of Japan and other developed countries clearly shows, however, that an aging society can reveal a major mismatch in the labor supply and demand with regard to certain types of jobs, which gives an impetus to the introduction of migrant workers from overseas. In the area of elderly care, the introduction of helpers and nurses who are foreign nationals will likely be considered. From the perspective of the country sending such workers, this would mean an opportunity to reduce the domestic demographic pressure and to earn hard currency through remittances sent back home by such immigrant workers. How this international labor migration affects the population dynamics of both the hosting and the sending countries is a question that needs to be addressed by future studies.

The other point that awaits future consideration is the effect that the aging of the population with a declining birthrate in Japan and other developed countries will have on the population dynamics of the developing countries. It has just been mentioned that the acceptance of immigrant workers by developed countries has not been taken into account in this paper. However, there are other influences. For one, when an aging population with a declining birthrate advances in a developed country, its domestic market will grow only slowly. Developing countries will have reduced the chance to export their labor-intensive goods. The Korean type of export-led economic development referred to in Chapter 2 would be a less viable option in the years ahead. Another way by which this influence would be felt in policy formulation and system design for the aging of the population in developing countries is the inflow of overseas development assistance. As the population of developed countries becomes older, tax revenues are not likely to be as high as the current volume, and the ODA budget is not likely to increase, or may even be cut. Developing countries therefore must tackle the task of formulating policies and designing systems for an aging society, keeping in mind that there will be budgetary constraints on assistance from overseas even though the explosion of the elderly population is projected to occur on an unprecedented scale.




With regard to a technical cooperation agency such as JICA, it is conceivable that its activities will be affected rather significantly by the advance of Japan's aging population with a declining birthrate. It is however not the purpose of the present study to look any further into this issue.

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Annex 1 Population Dynamics Map

Keiichiro Oizumi

-  "Population explosion period": young dependent population (0-14 years old) is at least 40% of total population
 -  "Demographic transition period": productive-age population (15-64 years old) is at least twice as large as dependent population
 -  "Aging population period": elderly dependent population (65 years and older) is at least 14%
- Numbers in the Table represent the per capita GDP in base year 2000

	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Democratic Republic of Congo	92										
Federal Democratic Republic of Ethiopia	115										
Republic of Burundi	139										
State of Eritrea	146										
Republic of Sierra Leone	153										
Republic of Malawi	169										
United Republic of Tanzania	190										
Republic of Mozambique	191										
Republic of Liberia	191										
Republic of Niger	200										
Republic of Guinea-Bissau	210										
Republic of Chad	218										
Republic of Rwanda	242										
Kingdom of Nepal	242										
Burkina Faso	243										
Republic of Madagascar	246										
Federal Republic of Nigeria	254										
Republic of Mali	294										
Kingdom of Cambodia	304										
The Republic of the Sudan	313										
Republic of Yemen	316										
Republic of Togo	323										
Republic of Kenya	328										
Central African Republic	339										
Democratic Republic of Sao Tome and Principe	341										
Republic of Uganda	348										
Republic of Haiti	368										
Socialist Republic of Viet Nam	370										
Republic of the Gambia	370										
People's Republic of Bangladesh	373										
Republic of Tajikistan	384										
Republic of Zambia	394										
Kyrgyz Republic	399										
Republic of Ghana	413										
Republic of Benin	414										
Republic of Azerbaijan	422										
Mongolia	428										
Union of Comoros	436										
Lao People's Democratic Republic	451										
India	460										
Georgia	470										
Islamic Republic of Mauritania	495										
Republic of Uzbekistan	497										
Islamic Republic of Pakistan	516										
Republic of Angola	524										
Kingdom of Bhutan	532										
Kingdom of Lesotho	548										
Republic of Guinea	605										
Republic of Senegal	609										
Republic of Zimbabwe	620										

	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Solomon Islands	663										
Republic of Cameroon	675										
Republic of Honduras	711										
Republic of Cote d'Ivoire	739										
Republic of Djibouti	780										
Republic of Congo	791										
Syrian Arab Republic	794										
People's Republic of China	825										
Ukraine	896										
Democratic Socialist Republic of Sri Lanka	902										
Co-operative Republic of Guyana	934										
Independent State of Papua New Guinea	952										
Republic of Bolivia	954										
Republic of Armenia	976										
Republic of Albania	979										
Republic of Suriname	985										
Republic of Indonesia	1,014										
Republic of the Philippines											
Arab Republic of Egypt	1,217										
Republic of Vanuatu	1,248										
Romania	1,321										
Turkmenistan	1,354										
Kingdom of Morocco	1,370										
Independent State of Samoa	1,379										
Republic of Ecuador	1,425										
Republic of Belarus	1,429										
Republic of Kazakhstan	1,496										
Bosnia and Herzegovina	1,526										
Kingdom of Swaziland	1,538										
Republic of Bulgaria	1,539										
Martinique	1,540										
Republic of Cape Verde	1,541										
Republic of Guatemala	1,562										
Republic of Equatorial Guinea	1,599										
People's Democratic Republic of Algeria	1,607										
Hashemite Kingdom of Jordan	1,619										
Islamic Republic of Iran	1,658										
Federated States of Micronesia	1,686										
Republic of Paraguay	1,700										
Kingdom of Tonga	1,716										
Republic of El Salvador	1,759										
Republic of Maldives	1,942										
Dominican Republic	2,054										
Jamaica	2,149										
Republic of Lithuania	2,165										
Republic of Colombia	2,285										
Republic of Peru	2,343										
Republic of Namibia	2,366										
Republic of Tunisia	2,470										
Russian Federation	2,471										
Former Yugoslav Republic of Macedonia	2,535										
Republic of Latvia	2,603										
Republic of the Fiji Islands	2,710										
Kingdom of Thailand	2,824										
Republic of Lebanon	2,891										
Belize	3,125										
Republic of Turkey	3,147										
Republic of Panama	3,283										
Bolivarian Republic of Venezuela	3,301										
Republic of Poland	3,678										

	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Mexico	3,806										
Republic of Costa Rica	3,928										
Republic of Botswana	3,931										
Republic of South Africa	4,020										
Republic of Mauritius	4,104										
Slovak Republic	4,267										
Gabonese Republic	4,378										
Republic of Estonia	4,464										
Federative Republic of Brazil	4,626										
Malaysia	4,797										
Republic of Croatia	5,146										
Republic of Chile	5,304										
Republic of Trinidad and Tobago	5,324										
Republic of Hungary	5,372										
Czech Republic	5,381										
Sultanate of Oman	5,909										
Oriental Republic of Uruguay	6,104										
Serbia and Montenegro	6,557										
Kingdom of Saudi Arabia	6,752										
Argentine Republic	7,913										
Barbados	8,522										
Republic of Malta	10,302										
Kingdom of Bahrain	11,116										
Republic of Slovenia	11,653										
Portuguese Republic	12,916										
Hellenic Republic	13,169										
Republic of Korea	13,199										
Puerto Rico	13,659										
Commonwealth of The Bahamas	13,836										
State of Kuwait	13,891										
Republic of Cyprus	14,096										
Principality of Monaco	15,242										
State of Israel	17,067										
Spain	17,384										
New Caledonia	17,432										
New Zealand	17,939										
French Guiana	19,896										
Republic of Italy	20,868										
United Kingdom of Great Britain and Northern Ireland	22,237										
Canada	22,981										
Australia	23,543										
Hong Kong	24,689										
Ireland	28,106										
Republic of Singapore	28,462										
French Republic	30,094										
Kingdom of Belgium	31,014										
Kingdom of the Netherlands	31,217										
Kingdom of Sweden	31,338										
Republic of Iceland	31,342										
United States of America	31,843										
Republic of Finland	31,983										
Federal Republic of Germany	32,678										
Republic of Austria	32,924										
Kingdom of Norway	37,954										
Kingdom of Denmark	38,482										
Japan	44,775										
Swiss Confederation	46,777										
Grand Duchy of Luxembourg	56,206										

Source: Prepared based on UN World Population Prospects and World Development Indicator

Annex 2 Report on Field Studies in Indonesia, Thailand and the Philippines

Natsumi Aratame

This report summarizes the findings obtained from the information, data and various comments that were collected in the course of a field study conducted in 2005 in Thailand, the Philippines and Indonesia. These three countries were chosen because little information and data are available about the situation of the aging of the population with declining birthrates in Southeast Asian countries in comparison to China, Korea and other East Asian countries on which a good deal of studies and research have been conducted. We will briefly review the relevant policies and institutional framework in the three countries and describe the activities of some private-sector organizations operating at the community level. In doing so, we hope to present some analyses regarding the alternative directions that Asian developing countries might consider when realizing community-based welfare in the future.

1. Progress in the aging of the population

In the year 2000, Indonesia had a population of 210 million, Thailand 60 million, and the Philippines 75 million. As is clearly shown by the TFR, the fertility rates of these countries have been falling sharply in recent years. Thailand has seen its TFR fall below the replacement level, while Indonesia's TFR has come down to 2.3 and that of the Philippines is also marking a definite departure from the high levels of past years. Accordingly, the proportion of the elderly in the total population is beginning to rise. With the ratio of the elderly to the total population in excess of 7%, Indonesia and Thailand have already entered the stage of an aging society.⁹⁷ The elderly ratio of the Philippines has not reached this level yet, but is expected to rise very quickly. As was discussed in Chapter 4, the problem is not that of the elderly ratio alone. Indonesia, for instance, already had a population as high as 16 million of those aged 60 years and above in 2000. The country must face the reality of the sheer size of the elderly population.

Table A2-1 Population, fertility rates, elderly ratio (Indonesia, Thailand, Philippines)

	Population in 2000 (Thousands people)	Total Fertility Rate		Ratio of the population aged 60 years and above to the total (%)	
		1950-1955	2000-2005	2000	2050
Indonesia	211,559	5.49	2.352	7.6	23.1
Thailand	60,925	6.40	1.925	8.4	27.6
Philippines	75,711	7.29	3.176	5.5	19.8

Source: The populations in 2000 and TFR are from the Population Division (2004)

The ratio of the population aged 60 years and above is from the Population Division (2003)

2. Policy measures related to the aging issue

In the face of the situation described above, the governments of all three countries are working to create or improve legislation and institutions related to the elderly. The following is an overview of the major laws and ordinances that were identified during the field study in August 2005.

(1) Philippines

- Rep. Act No. 7876 (1994) Senior Citizens Center Act of the Philippines: an act stipulating the

⁹⁷ The "elderly ratio" here is based on a population aged 60 years and above, not 65 years and above.

construction of meeting facilities in every municipality for exchanges and social activities for the elderly;

- Rep. Act No. 9257 The Expanded Senior Citizens Act of 2003 (2004): an act providing for a 20% discount on pharmaceuticals purchased, free medical examinations at state hospitals, and a 20% discount at private medical facilities, etc;
- Presidential Proclamation 470 (1994): a proclamation designating the first week of October each year “Elderly Filipino Week;”
- 1994-2004 Philippine Plan of Action for Older Persons and the Philippine Plan of Action for Persons with Disabilities;
- 2005-2010 Philippine Plan of Action for Senior Citizens: the currently ongoing plan of action, which is the successor to the 1994-2004 Plan of Action.

The 2005-2010 Philippine Plan of Action for Senior Citizens reflects the MDGs, the Madrid Action Plan on Ageing (2002) and the Shanghai Implementation Strategy (2002). In this Plan of Action, the emphasis is placed upon mutual assistance between families and generations as well as upon the community. It also encourages participatory action on the part of the elderly and calls for improvements in community health care. At the same time, the Plan of Action provides a means for the community, local governments, NGOs, POs (People’s Organizations) and citizen groups to become more closely involved in community activities. In addition, the first week of October is called Elderly Filipino Week, during which extensive awareness raising programs and events are held. There are only three state-run nursing homes for the elderly in need of long-term care, which is far from enough to cope with the expected increase in demand.⁹⁸

The largest government-run nursing home amongst the three is the Golden Acres, which provides home and rehabilitation services for abandoned, neglected, and unattached older Filipino men and women. The admission is open to Filipino males and females 60 years old and above, who are dependent but have no immediate relatives and are free from contagious/communicable diseases. While intended to provide temporary shelter, it is serving as a long-term home for the many older persons accommodated there. In this state-run nursing home there was a shortage of pharmaceuticals and a building refurbishing project had been stalled. As of August 2005, a total number of 246 elderly people (the number of females was about twice that of males) were accommodated in seven buildings, depending on the type of symptoms. The average age was between 70 and 80 years. There were 70 staff members, including seven social workers, five nurses, one medical doctor, 35 care givers as well as guards and clerks.

(2) Thailand

- First Long-Term Plan of Action for the Elderly in Thailand (1986-2001) 1986
- Second National Long-term Plan for Older Persons (2002-2021) 2000

These Thai plans also place emphasis on the importance of reinforcing family and community ties and seek to encourage families to live with their elderly members, promote personal savings and enhance work opportunities. Policies concerning the elderly are planned, coordinated and implemented by the Ministry of Social Development and Human Security.⁹⁹

As of August 2005, 20 elderly nursing homes for the low-income elderly, 18 social service centers that provide day care and rehabilitation services, and 200 community service centers were in operation. The largest nursing home, the Bangkhae Home for the Aged, was established to provide care services for elderly people 60 years old and above, who are homeless, neglected or unhappy living with their families.

⁹⁸ A brochure of the Department of Social Welfare and Development states the country has 563 day care institutions. Details have not been investigated.

⁹⁹ For Thai policies in recent years, see Oizumi (2005).

Admission is open to older persons with no contagious diseases and having no physical or mental disorder. At the time of our visit, the Home provided homes to a total of 221 elderly persons (48 male and 173 female elderly persons). The average age was 78, and oldest, 98. They were attended to by a staff of 12 people, including social workers, nurses, accounting clerks, etc.

(3) Indonesia

- Law Number 6 Concerning The Basic Provision of Social Welfare (1974)
- Coordinating Minister of the Public Welfare Decree Number 15/Kep/Menko/Kesra/IX concerning National Committee of Elderly Institutionalization in the National Living
- Law Number 13 Concerning the Elderly Welfare (1998)
- Law Number 22 Concerning the Local Government (1999)
- Presidential Decree Number 52 Concerning National Commission of Elderly (*Komnas Lansia*) (2004)

In Indonesia, the National Commission for the Elderly was created in 2004. As in the case of the Philippines, Indonesia's policies related to the elderly are influenced by the discussions and declarations of international conferences. The policy objectives include: emphasis on the involvement of the family and the community with the life of the elderly, the improvement of the quality of services to the elderly, the development of specialists, collaboration among the organizations concerned including NGOs and the broadening of the scope of services. Currently care services are provided at home and at facilities. One member of the Commission explained that the Commission's policy is not to increase the number of nursing facilities any more.¹⁰⁰ However, the focus has been placed on community home care, together with the empowerment of the elderly in farm communities, especially those elders who are facing poverty conditions or have been abandoned (female aged citizens). As of August 2005, there were two state-run nursing homes (hosting 182 persons), 66 run by local governments (5,126 persons) and 165 (5,812 persons) operated privately or by local communities.

3. NGOs and social services: activities of HelpAge International and its country affiliates

During the field study, the interviews were conducted at HelpAge International (hereinafter "HelpAge") and their affiliated associations in the respective countries, a female elderly nursing home run by the Catholic church in the Philippines, and a nursing home run by a government-related NPO in Indonesia. HelpAge is given special attention below since they seem to offer a number of viable alternatives to realizing community-based welfare in Asia. HelpAge chapters adopt approaches that respond to the local conditions while honoring and respecting common ideals and methodologies as an international assistance organization. Furthermore, HelpAge operates globally and could well be a local partner for Japan when Japan extends its cooperation to developing countries.

HelpAge is an international NGO established in 1983, and it has more than 70 affiliated organizations in 50 countries.¹⁰¹ The secretariat offices are based in the UK, Belgium and the US and there are regional centers in Africa, Asia/Pacific, Latin America, the Caribbean and Eastern Europe/Central Asia. Its main mission has been advocacy with regard to the problems of aged persons. More recently, it has been dealing with issues such as old people and tsunamis and old people with HIV-positive family members. In addition to implementing specific projects, HelpAge promotes public awareness concerning the concept of "social pensions" or "non-contributory pensions" and organized an international symposium on this issue in the

¹⁰⁰ Interview with Dr. dr. RM. Nugroho Abikusno

¹⁰¹ For more details of the organization, see <http://www.helpage.org/Home>.

fall of 2005. The following paragraphs outline the activities of HelpAge in the countries studied. The actual work is carried out by the affiliated organizations in each country.

[Case 1] Philippines - Coalition of Services for the Elderly (COSE)

Established in 1989. The main activities are as follows:

- Organizing the elderly and executing Community Based programs among the Elderly Poor (CBPE),
- Has established 44 elderly organizations in Metro Manila,
- Fostering “Community Gerontologists”

Under this scheme, the elderly persons who have received COSE training provide health care services as community gerontologists to help fellow elderly persons in cooperation with other volunteer experts,

- Managing group homes

In cooperation with the Ministry of Social Welfare and Development and Golden Acres mentioned earlier, COSE operates three group homes (GHs). As of August 2005, five females were accommodated in GH1 and four females each in GH2 and GH3. They were previously staying in a Golden Acres facility but were moved to the GH due to overcrowding. The GHs are financed by COSE.

- Vocational training

Vocational programs are implemented with the aim of helping to create sources of income. The females in GHs were receiving training in selling sundry goods.

[Case 2] Thailand - Foundation for Older Persons' Development (FOPDEV)

Established in 1999. Four Full-time staff. The main purpose is to help the elderly sustain their lives in the community. In the aftermath of the 1997 Asian monetary crisis, they realized that young men and women had moved from the countryside to cities and there was no one left to take care of the elderly in rural communities. This realization triggered the foundation of FOPDEV. Its specific activities include:

- poverty reduction, seminars on aging;
- training of health care volunteers;
- empowerment of the elderly through vocational training - making food, baskets, slippers, rope, etc.

The main purpose of this foundation is to empower the elderly in the countryside. It does not seek to create major sources of income for them; it seeks to encourage them to participate in the society and earn some supplementary income. Through participatory approaches, they intend to provide socioeconomic assistance rather than simply providing basic health care services. This assistance consists of visitations and social care, which they call “home care,” rather than a “health care” approach. The care-givers are unpaid volunteers. FOPDEV receives assistance from HelpAge Korea in the operation of seminars to train health care volunteers.

[Case 3] Indonesia - Yayasan Emong Lansia - HelpAge Indonesia

Established in 1996. As with the Thai affiliate, the Indonesian affiliate has been assisted by HelpAge Korea. Their activities include:

- Adopt A Granny Program (a foster parent program), training on aging, home care projects;
- Home care program in West Djakarta: approximately 40 volunteers have been recruited from amongst community social workers, family planning and aged family helpers, the Red Cross and women groups to visit approximately 40 poverty-stricken elderly citizens and provide consultation services.¹⁰²
- Though executed by an NGO, the project is in effect a government pilot project (Abikusno (2005)).

¹⁰² For an overview of this project, see Abikusno (2005).

While Indonesia has a health center (pusaka) in each RW where people can receive health services, the significance of the HelpAge project lies in that the care givers visit the private homes of the elderly who are sick and in dire poverty and who are unable to visit the government health center by themselves.

4. Commonalities and differences

Commonalities and differences exist among the NGO activities of the three countries summarized above. The first major commonality is the emphasis that is placed on the role of the family and the community. It is perhaps worth noting that, in addition to the focus given to this issue by the NGOs, the government has also made this point clear in its policy and has implemented concrete measures.

The second commonality is the overlap of elderly issues with the problems of poverty and employment. In Japan, the pension and health insurance systems cover the entire population, and, moreover, low-income families can receive public assistance under the social welfare system. The receivers of public assistance are also entitled to exceptions or reductions in the payment of long-term care insurance premiums. However, in many Asian developing countries, health and/or pension insurance is not universally available, and therefore people easily fall into poverty when they can no longer work due to old age. This is precisely the reason why the programs in the Philippines and Thailand have income-earning elements.

The third commonality, as was learned from both the NGOs and the nursing home staff, is that elderly care at home during daytime is increasingly becoming difficult due to urbanization and the prevalence of employed labor outside the home. There is also a view that traditional attitudes towards the care of old-aged parents are on the wane. Changing attitudes as well as employment patterns are thus making it difficult for grown-up sons and daughters to take care of their aged parents at home.

- The three countries differ from each other in their approaches to elderly care in the following ways:
group home approach (Philippines)
- emphasis on participatory activities and job creation for the elderly (Thailand, Philippines)
- emphasis on at-home care and staff visits (Indonesia)

It is not a question of which approach might be the best; all three approaches offer basic perspectives for extending assistance to the life of the elderly at the community level. The group home approach adopted in the Philippines closely follows along the lines of Japan's community-based welfare services. In the face of the growing number of elderly persons living alone, efforts are required to enable single aged persons to live together in a community. In countries that have only limited pension systems, it is particularly important that the elderly work and earn some income to extend their life as their health condition permits. In this connection, the approach that the NGOs in Thailand and the Philippines are taking is of special relevance. Although modest, the money the elderly earn is a great help in maintaining their lives and preserving their personal dignity. Finally, the elderly persons who face poverty conditions for reasons of age and health must be given proper assistance. It is not easy for such persons to make a trip to a clinic or meeting facilities to receive services. The Indonesian approach addresses this problem by sending volunteers to the homes of disadvantaged elderly people. While no method can solve all the problems related to old-age security, these three approaches present methodologies that may be considered singly or in some combination to respond to a growing need for health care, pensions and welfare for the elderly at the community level.

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Annex 3 Initiatives for the Aging of the Global Population with a Declining Birthrate - United Nations Initiatives on Aging

Koji Yamada

The first World Assembly on Aging was held in Vienna in 1982. The assembly raised awareness, especially among developed countries, of the issue of aging, and, influenced by this, the Japanese government formulated Basic Principles on Measures for a Long-life Society. It is important to have a good understanding of such international trends in order to analyze the evolution of the policies of the Japanese government as well as to give some thought to the roles that Japan may be able to play in the world. This short annex will present an overview of the United Nations initiatives on aging subsequent to the first World Assembly on Aging.

1. Initiatives on Aging after the First World Assembly on Aging

The World Assembly on Aging that was held in Vienna in 1982 marked the first significant initiative by the United Nations on the issue of aging. The International Plan of Action on Aging that was adopted by the assembly was endorsed by the UN General Assembly in the form of a resolution. The issue of aging has been taken up frequently by the UN since then. A 1990 UN General Assembly resolution designated 1 October as the International Day for the Elderly. And the 1991 UN General Assembly adopted the United Nations Principles for Older Persons.

The 1992 UN General Assembly adopted a Proclamation on Aging, with a view to further promoting the International Plan of Action on Aging and the UN Principles for Older Persons. It was also decided that the year 1999 should be observed as the International Year of Older Persons. It is stated in [the Japanese translation of] the International Plan of Action on Aging and the United Nations Principles for Older Persons as published by the United Nations Information Center [in Japan] in November 1999 that “The Trust Fund for the World Assembly on Aging, as established by a General Assembly resolution should be used to encourage a greater interest in the developing countries in matters related to aging and to assist the governments of these countries, at their request, in formulating and implementing policies and programs for the elderly. It should also be used for technical cooperation and research related to the aging of populations and for promoting cooperation among developing countries in the exchange of the relevant information and technology.”¹⁰³ Herein lies the recognition that aging is not an issue exclusive to developed countries, but it is also an impending issue that needs to be responded to by developing countries. The need for assistance from the developed countries to the developing countries was clearly set out.

In 1999, the International Year of Older Persons, many seminars, symposia and other awareness-raising events were carried out in various parts of the world. In October of that year, it was proposed that the Second World Assembly on Aging be held in Spain in 2002 to revise the International Plan of Action after 20 years.

2. Outline of the Second World Assembly on Aging

In April 2002 the Second UN World Assembly on Aging was held in Madrid with an NGO Forum as a parallel event. The main objective of the conference was to revise the International Plan of Action on Aging of 1982 to reflect significant changes in demographic structures and the accelerated process of the aging of

¹⁰³ <http://www.unicef.or.jp/centre/pdf/elderly.pdf>

Table A3-1 Evolution of UN Initiatives on Aging

Year	Initiatives
1956	A society in which the proportion of elderly is 7% or higher is termed an “aged society” (UN Economic and Social Council report)
1982	World Assembly on Aging (Vienna) Adoption of the International Plan of Action on Aging Resolution International Plan of Action on Aging (37th UN General Assembly)
1990	1 October designated as International Day for the Elderly (45th UN General Assembly)
1991	United Nations Principles for Older Persons adopted (46th UN General Assembly)
1992	Adoption of Proclamation on Aging 1999 decided as the International Year of Older Persons (47th UN General Assembly)
1999	International Year of Older Persons Special session of the General Assembly to follow-up on the International Year of Older Persons (October)
2002	Second World Assembly on Aging (April) (Madrid) Adoption of Madrid International Plan of Action 2002

Source: Cabinet Office (2004)

the population, particularly in developing countries, that had taken place since the First World Assembly 20 years before. The UN conference was attended by nearly 700 heads of state, prime ministers, cabinet ministers, vice ministers and other representatives from 159 countries. When participants from international organizations and NGOs are added, the total attendance was said to be approximately 9,000. In contrast to China, which participated quite actively with regard to its One-child Policy, the participation of Japanese government representatives was far from active. There is a view that Japan missed this window of opportunity to show its willingness to cooperate with the rest of the world on the issue of aging, particularly with respect to the developing countries.¹⁰⁴

The plenary session adopted the Madrid International Plan of Action 2002 (hereinafter the “Plan of Action 2002”) and adopted the Madrid Political Declaration to declare the political will for the realization of the plan.

The Plan of Action 2002 consists of three parts: Introduction, Recommendations for Action, and Implementation and Follow-up. The essential part “Recommendations for Action” identified three priority directions: (1) Older persons and development, (2) Advancing health and well-being into old age, and (3) Ensuring an enabling and supportive environment. Under these priority directions, 35 action objectives have been set, and a total of 239 specific recommendations for action to achieve these objectives have been spelled out. The Annual Report on the Aging Society 2003 that was published by the Cabinet Office describes the Plan of Action 2002 as follows:

“In the face of the advancing aging of the population on a global scale, especially the expected rapid aging of the developing countries, the Plan of Action 2002 calls for changes in attitudes, policies and practices at all levels in all sectors so that the enormous potential of aging in the twenty-first century may be fulfilled. (omitted) The Plan of Action is intended to be a practical tool to assist policy makers to focus on the key priorities associated with population aging. (omitted) The Political Declaration states that the governments will work to strengthen international cooperation for the full implementation of the Plan of Action, that they will spare no efforts in eliminating all forms of discrimination, including on the basis of age, and that they commit themselves to the task of effectively incorporating aging into social and economic strategies, policies and action.”¹⁰⁵

In a closing speech to the world assembly, Secretary-General Kofi Annan said “Between now and

¹⁰⁴ Inoue (2003)

¹⁰⁵ Cabinet Office (2004)

2050, the number of older persons will rise from about 600 million to almost two billion. In less than fifty years from now, the world will contain more people over 60 than under the age of 15. Perhaps most importantly, the greatest increase in the number of older persons will be in the developing countries. This is the most important observation. (omitted) The aging of the population is definitely no longer just a ‘first world issue’.” He pointed out the risks associated with the need for the elderly to take care of orphans due to the breakdown of the traditional family structure and social ties that provide help, as well as the spread of HIV. He also warned that the concept of being supported by the society “from the cradle to the grave” is diminishing in developing countries and the elderly can only look forward to receiving low-level pensions and poor quality medical care.

Table A3-2 Madrid International Plan of Action on Aging 2002

<p>Introduction</p> <p>Recommendations for Action</p> <p><u>A. Priority Direction I : Older persons and development</u></p> <p>Issue 1: Active participation in society and development</p> <p>Issue 2: Work and the ageing labour force</p> <p>Issue 3: Rural development, migration and urbanization</p> <p>Issue 4: Access to knowledge, education and training</p> <p>Issue 5: Intergenerational solidarity</p> <p>Issue 6: Eradication of poverty</p> <p>Issue 7: Income security, social protection/social security and poverty prevention</p> <p>Issue 8: Emergency situations</p> <p><u>B. Priority Direction II: Advancing health and well-being into old age</u></p> <p>Issue 1: Health promotion and well-being throughout life</p> <p>Issue 2: Universal and equal access to health-care services</p> <p>Issue 3: Older persons and HIV/AIDS</p> <p>Issue 4: Training of care providers and health professionals</p> <p>Issue 5: Mental health needs of older persons</p> <p>Issue 6: Older persons and disabilities</p> <p><u>C. Priority Direction III: Ensuring an enabling and supportive environment</u></p> <p>Issue 1: Housing and the living environment</p> <p>Issue 2: Care and support for caregivers</p> <p>Issue 3: Neglect, abuse and violence</p> <p>Issue 4: Images of ageing</p> <p>Implementation and follow-up</p> <p>National action; International action; Research; Global monitoring, review and updating</p>
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Source: Cabinet Office (2004) p.62, Inoue (2003) p.17

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