

Fertility decline below replacement fertility in Asian countries

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Abstract: Fertility has been declining very fast most countries of the world over the past 40 years, and it continues to decline almost everywhere. As a result, fertility has reached quite unexpectedly low levels in many countries. Currently, about half of the world's population is living in countries with fertility at, or below replacement levels. The paper concentrates on the present fertility decline in some Asian countries, because it has largely characterized the Asian population transition over the later part of the last century. Beginning with the initiation of Japan's transition in the 1930s, fertility declines in other Asian countries soon followed, with levels in Hong Kong, Taiwan and Singapore beginning to fall by the 1960s. The latter part of the 1960s and the 1970s heralded the beginning of transitions in the major Chinese and South Korean cities, as well as the Chinese populations in Southeast Asia.

Keywords: fertility decline, Asia, replacement level

According to the data in Table 1, in 1995–2000 the total fertility rate (TFR) is estimated to be 2.8 births per women in the world and 3.1 births and 1.6 births per women, respectively, for the developing and developed world. Out of the five sub-regions of Africa, three still have average total fertility rates around or above six children per women. At the other extreme, in Asia, East Asia has already reached below replacement level of fertility. The three sub-regions of Latin America and South East Asia had in the late 90s average fertility rates between 2.5 and three children per women. Western and South-central Asia, North and Southern Africa were somewhere in between with average total fertility rates between 3 and 4 children per woman.

From the Table 1 it is interesting to see that the declines by periods are different among the sub-regions. In the 60s, East Asia, the Caribbean, South America and to a certain extent South-east Asia, already had lower fertility levels (6 children per woman and less) than the other less developed sub-regions. The large fertility declines – minus 3 children and more – that these sub-regions experienced between 1960–65 and 1995–00. For the other sub-regions which had similar large fertility declines: Northern Africa, Southern Africa and Central America – respectively 3.5, 3.2 and 3.8 children during the same period – but higher fertility in the 60s, their 1995–2000 average fertility rates are higher, i.e. between 3.3 and 4 children per women. Western Asia and South-central Asia had a different experience. In fact, their higher 1995–2000 average fertility rates: 3.9 children per woman in Western Asia, and 3.6 in South-central Asia, are the both moderately high fertility in the 60s – 6.2 and 6.1 children per women in 1960–65 respectively, and more modest fertility declines: minus 2.4 children per woman for both sub-regions.

Fertility decline in Asian countries is clearly seen from the data presented in the table 2; since 1960-s fertility has declined very fast and its trend reached the below replacement

level (2.1 births per woman) in all the populations of East Asia. Below-replacement fertility has been reached in Singapore and Thailand in Southeast Asia, while Sri Lanka is the only country in South Central Asia exhibiting below-replacement fertility. Armenia, Azerbaijan, Cyprus, Georgia and Kazakhstan in Western Asia have also experienced below-replacement fertility.

Table 1. Estimated Total Fertility Rates from 1950–55 to 1995–00, and declines

Sub-region	Total Fertility Rate						Variations in Total Fertility Rates		
	1950	1960	1970	1980	1990	1995	1950	1960	1980
	–55	–65	–75	–85	–95	–00	–55	–65	–85
	–55	–65	–75	–85	–95	–00	1950	1995	1995
World	5.0	5.0	4.5	3.6	3.0	2.8	-2.2	-2.2	-0.7
More developed regions	2.8	2.7	2.1	1.8	1.7	1.6	-1.3	-1.1	-0.3
Less developed regions	6.2	6.0	5.4	4.1	3.4	3.1	-3.1	-2.9	-1.0
East Africa	6.9	7.0	7.0	6.9	6.3	6.1	-0.8	-0.9	-0.8
Middle Africa	5.9	6.0	6.3	6.6	6.5	6.5	0.5	0.4	-0.2
Northern Africa	6.8	7.1	6.3	5.5	4.1	3.6	-3.2	-3.5	-2.0
Southern Africa	6.4	6.5	5.5	4.7	3.5	3.3	-3.2	-3.2	-1.4
West Africa	6.8	7.0	7.0	7.0	6.4	5.9	-0.9	-1.0	-1.0
East Asia	5.7	5.2	4.5	2.5	1.9	1.8	-3.9	-3.4	-0.7
South-central Asia	6.1	6.0	5.6	4.8	4.0	3.6	-2.5	-2.4	-1.2
South-eastern Asia	6.0	6.1	5.5	4.2	3.2	2.8	-3.1	-3.3	-1.4
Western Asia	6.4	6.2	5.6	5.0	4.2	3.9	-2.5	-2.4	-1.1
Caribbean	5.2	5.5	4.4	3.4	2.7	2.5	-2.7	-3.0	-0.9
Central America	6.9	6.8	6.4	4.5	3.4	3.0	-3.8	-3.8	-1.5
South America	5.7	5.8	4.7	3.7	2.8	2.6	-3.1	-3.2	-1.1
Eastern Europe	2.8	2.4	2.2	2.1	1.6	1.3	-1.6	-1.1	-0.8
Northern Europe	2.3	2.7	2.1	1.8	1.8	1.7	-0.7	-1.1	-0.1
Southern Europe	2.7	2.7	2.5	1.8	1.4	1.3	-1.3	-1.4	-0.5
Western Europe	2.4	2.7	1.9	1.6	1.6	1.5	-0.9	-1.2	-0.1
Northern America	3.5	3.3	2.0	1.8	2.0	2.0	-1.5	-1.3	0.2
Australia/New Zealand	3.3	3.4	2.6	1.9	1.9	1.8	-1.5	-1.6	-0.1

Source: United Nations, 2001: World Population Prospects: The 2000 Revision

The speed with which the fertility decline occurred was different among Asian countries. Table 2 shows the classification of countries and areas in Asian countries by total fertility rate in the periods 1970–1975 and 1995–2000. It is interesting to note that a large number of countries and areas experienced marked declines in fertility, from a very high level (5 or more children per woman) to a moderate level (2.11 to 3.49) during those years, whereas in countries such as Afghanistan, Bhutan, the Lao People's Democratic Republic, Maldives and Pakistan, fertility remained at a high level. However, a sustained decline in fertility was observed in countries where total fertility rates had been high or moderate in the period 1970–1975. Of particular importance are Azerbaijan, China, the

Republic of Korea, Sri Lanka and Thailand, which exhibited remarkable declines in fertility, going from high to below-replacement levels.

Table 2. Classification of Asian countries by total fertility rate, 1970–1975 and 1995–2000

Total fertility rate in 1970–1975	Total fertility rate in 1995–2000			
	Very high (5.00 or higher)	High (3.50–4.99)	Moderate (2.11 to 3.49)	Low (2.10 or lower)
Very high 5.00 or higher	Afghanistan	Nepal	Democratic People's Republic of Korea	
	Bhutan	Tajikistan	Mongolia	
	Maldives	Turkmenistan	Bangladesh	
	Pakistan	Cambodia	India	
	Lao People's Democratic Republic	Philippines	Iran	
			Uzbekistan	
			Turkey	
			Indonesia	
			Malaysia	
			Myanmar	
		Viet Nam		
High 3.50–4.99			Kyrgyzstan	China Republic of Korea Thailand Sri-Lanka Azerbaijan
Moderate 2.11–3.49			Kazakhstan	Hong Kong Japan Macao Singapore Armenia

Source: United Nations (1999). *World Population Prospects: The 1998 Revision, Volume I: Comprehensive Tables* (New York, Department of Social and Economic Affairs).

There are a number of reasons, including economic, socioeconomic, and social factors have been suggested for the Asian fertility declines. Asian countries experience and respond differently to fertility decline. One of the factors of fertility decline and below replacement fertility is policy action in some Asian countries.

Soon after the ending of the Second World War, a baby boom period appeared in many countries. The high population growth rate was mentioned until the late 1960s. Total fertility rate in China and Republic of Korea were 5.8 and 4.5 in 1970 respectively. In Thailand, TFR reached 6.1, ranking third in Southeast Asian countries next to Cambodia and the Lao People's Democratic Republic. Even in urbanized country such as Singapore, the TFR was above 4 in the late 1960s. These extremely high fertility and growth rates shocked the Governments of Asian countries (United Nations, 1999). Since the early

1970s, the Governments of all countries mentioned above adopted antinatality policy and implemented family planning programs.

Table 3. Levels and Trends, Total Fertility Rates in some Asian countries, 1965–1990

Country	1965	1970	1975	1980	1985	1990	1998
Hong Kong	4.93	3.31	2.74	2.06	1.47	1.19	1.2
China	*	5.80	3.57	2.31	2.20	2.31	1.8
Japan	2.15	2.10	1.93	1.74	1.74	1.51	1.4
Republic of Korea	4.67	4.50	3.23	2.70	1.68	1.58	1.6
Singapore	4.62	3.10	2.11	1.74	1.62	1.72	1.8
Thailand	*	6.10	4.50	3.70	3.20	2.20	1.9

Source: Patterns of Fertility in Low Fertility Settings, 1992, United Nations

An interesting case is China in which the government policy played a major role in the decline of fertility. There was an unprecedented drop in fertility from 5.8 in 1970 to 2.3 in 1980 after the Chinese Government launched a comprehensive and strong family planning program during the late 1970s.

Within ten years, the total fertility rate of Singapore dropped from 4.6 percent in 1965–1970 to 2.1 percent in 1970–1975. The fertility of the people of Singapore went down to below level after mid 1970s and has been at a low level since then. Republic of Korea and Thailand all started their family planning programs around 1970. The fertility of the Republic of Korea decreased to below replacement level in the mid 1980s. China and Thailand both reached below replacement level in the early 1990s. The role of the political influence in the reduction of fertility has revealed these countries where an effective programme designed to provide knowledge and access to family planning.

In the case of Japan, fertility remained almost constant at near replacement level between 1960–75, it began to decline since 1975 and plummeted to 1.5 in 1990. This resumption of fertility decline in Japan was primarily driven by underlying economic and social changes (Retherfold, Ogowa and Sakomoto, 1996). The Government of Japan is now very much concerned with this low fertility and is taking measures to lower age at marriage and increase fertility.

In Singapore, the pronatalist policy adopted by the Government has led to a leveling off the total fertility rate at 1.8 (Kirk, 1996). In Hong Kong, Japan and the Republic of Korea too, fertility seems to have reached a plateau.

A number of reasons have been suggested for the Asian fertility declines. Declines in most countries have generally been concomitant with the rise in the pace of industrialisation and relative economic prosperity. Socio-economic factors such as the spread of education, particularly among women, have been cited as vital to bringing down fertility to below-replacement levels in several Asian countries.

The diffusion of contraceptive use arguably plays an important role as well. Many studies have also considered anti-natalist policies by relatively strong-handed governments in many Asian nations as playing a significant role in bringing about the rapid pace of decline.

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POKLES PLODNOSTI POD ÚROVEŇ PROSTÉ REPRODUKCE V ASII

Résumé

Během posledních 40 let se významně snížila úroveň plodnosti v mnoha zemích světa a toto snižování pokračuje. V některých zemích tato úroveň dosáhla neočekávaných nízkých hodnot. Tento trend probíhal také v Asii. Pokles úrovně plodnosti začal v Japonsku ve 30. letech minulého století; následoval Hong Kong, Taiwan a Singapur v 60. letech. V 70. letech začal výrazně pokles úrovně plodnosti ve velkých místech Číny a Jižní Koreje, který se rozšířil později na celou čínskou populaci. Celkový pohled na vývoj plodnosti ve světě je podán v tab. 1. Je z něj dobře patrná postupná homogenizace světového obyvatelstva pokud jde o jeho demografické chování. Zvláštní pozornost je věnována asijským zemím. Z klasifikace zemí podle rychlosti poklesu úrovně plodnosti (tab. 2) je patrné, ve kterých asijských zemích došlo během posledních 30 let k největšímu poklesu úrovně plodnosti.

Existuje obsáhlá literatura zabývající se vysvětlením důvodů tohoto poklesu. Autoři se většinou shodují na důsledcích ekonomického rozvoje a zejména industrializace. Často se však také rozvoj vzdělání, zejména žen, dostupnost a rozšíření antikoncepce a populační politika prosazující omezení počtu dětí podporou propagace plánovaného rodičovství.