Age Structural Transition and Demographic Opportunity in Selected Asian Countries

Neelanjana Pandey
Research Scholar,
International Institute for Population Sciences, Mumbai, India

Abstract

Change in population age structure has led most of the Asian countries to pass through a path known as window of opportunity or demographic bonus. The demographic bonus has been experienced to a greater or lesser extent in most of Asia, but the extent to which its potential to assist economic growth has been utilized varies enormously. The analysis clearly indicates the speed and timing of age structure transition in selected Asian countries and its linkages with their window of opportunity. It has been observed that duration of demographic opportunity is negatively linked with speed of fertility decline. Countries with rapid fertility transition may face sharp population ageing and it suggests that they may have to focus more on this section of people for social as well as economic benefit of the country.

Introduction

Demographic change affects the economic performance of a country in a number of ways. The most familiar concern is of population growth, which attributable to rise in fertility and improvement in longevity among elderly and may have immediate negative effect on economic growth, because this implies a greater number of elderly to support and more mouth to feed. Later on, these demographic effects will have delayed positive impact on economic growth because economically active population will boom two-decade later (Bloom and Williamson, 1998**).** Turning to the issues arising from the demographic transition that Asian countries would face in the near future, these will vary with the stages of the transition (Hussain et al, 2006). Researchers have revisited the connection between population and economic growth repeatedly, emphasizing the demographic transition as the process underlying population growth in most of developing countries.

The effect of demographic transition can be felt for several generations. An Initial spurt of population growth occurs between beginning of the mortality decline and the end of fertility decline. However, when the baby-boom generation itself reaches the prime reproductive years, it creates its own echo- a succeeding baby boom .Subsequent echo effect produces further spurts. In other words, even if total fertility rates have been reduced to replacement level, the population will continue to grow until the members of bulge generation and successive echo generation tend to have passed through their prime reproductive years. This process is known as *Population Momentum* and its effect will be felt for 50 to 100 years before the population age structure settle down. Because of this momentum alone, the population of developing countries as a whole is expected to increase by 40 percent between 1995 and 2100 **(**Bongaarts, 2000; Bloom *et al*, 2003) .Hence, countries that have undergone or are in the mid of the process a fast fertility transition may experience a sizable, if temporary, boost to their level of output per capita, because the size of the labour force increases faster than the population as a whole.

Age Structural Transition

Recently recognized and perhaps more important is transition in age structure. These changes occur for two main reasons; first, the initial mortality decline is concentrated among infants and young children, there by concentrating its effect at the lower end of age distribution. Second, the subsequent fertility

decline has an effect on age distribution (entirely concentrated at the age zero i.e. at birth). The combination of these two forces introduces a bulge into population pyramid, with the passage of time, this bulge ages and moves from being concentrated at prime ages for working, saving and reproduction and eventually to being concentrated at the years of old ages. During last few years, there has been an increasing awareness of direct influence of population age structure on the macro economy. People's economic behavior and needs vary differently at different stages of life. The transformation in population age structure that can have significant impacts on the economic growth is acknowledged as DEMOGRAPHIC *DIVIDEND (*Navneetham,2006*).* Some studies on the experience of selected countries and areas in East and South-East Asia that have recorded high rates of economic growth during the past few decades reveal that changes in age structure, occurring as a result of their demographic transition, have contributed significantly to the economic growth of these countries and areas (Bloom and Williamson, 1998).

Change in relative size of population aged 14 and less, working age group i.e. 15-64 aged and those who are aged 65 and above, may affect the country's economic performance. In particular, increasing the share of the working age group can produce a demographic dividend of economic growth, assuming that policies to take advantage of this are in place. According to Bloom et al. (2003), there are many mechanisms that deliver the demographic dividend and the most important mechanisms are labor supply, savings and human capital. First, when the share of the working age group increases, the labor supply increase and dependency ratio, the ratio of dependents to non-dependents, decrease. Increasing the working age group also encourages the growth of savings, thus increase the physical capital accumulation and growth. The most of the young do not enter the labor market and consume more than they produce and the old maintain their consumption by using the economic resources saved during their working period. Comparing with the young and the old, working-age people tend to have a higher level of economic output and a higher level of saving.

The rise in the share of working age population and individual responses to population aging can lead to these dividends. Several authors argue that a falling youth dependency ratio (the population below working age divided by the population of working age) contributed to the economic growth miracle in East Asia. However, several models had been already developed for the quantification of effect of age structure transition on economic growth but this paper attempts to examine the magnitude of demographic opportunity in relation to onset and speed of fertility decline. We also examine ageing, and how the benefits of a changing age structure can be connected to ageing process and lead to window of opportunity. Most of the analysis has been based on data published by the *United Nations' World Population Prospect-2006***.** Different indicators of fertility and mortality (1950 to 2050) are based on Medium Variant Projections. At outset, it should be mentioned that the estimates of demographic parameters may be somewhat different than that provided by respective country's official document, but we can ignore this fact because we are not concern to exact level but our emphasis is on the change in these parameters.

Demographic Changes

Although the transition has been under way across the length and breadth of Asia, its onset, speed and present status vary greatly between countries. As a result, the national demographic profiles, which were generally similar in the 1950s, now differ widely and divide into three distinct regional clusters: East Asia (China and Republic of Korea), Southeast (Indonesia, Malaysia and Thailand) and South-Central Asia (India and Iran) are located along the continuum divided roughly into mature, intermediate and earlier stages of demographic transition (Jones, 2004).

Fertility and Mortality Transition

Demographic changes are consequences of speed and timing of fertility and mortality decline, it is important to understand the fertility and mortality trends in the selected countries of all the three regions. The *Figure1* exhibits that fertility has universally declined in all the countries. However, the speed and onset of fertility decline differed. Although, level of fertility in the 1950s was above five in all the counties, but the nature and speed of fertility decline was different during the transition period 1950-90.

Adapting Coal's criteria for the onset of martial fertility decline, we have calculated the percentage change in TFR over time and we accept that there has to be a fall in TFR of about 10 percent for the fall to be irreversible and to continue. Taking TFR of onset of fertility decline as the base, we have calculated the ratio of TFRs making denominator constant at onset of fertility decline. It gives the idea of speed of fertility decline.
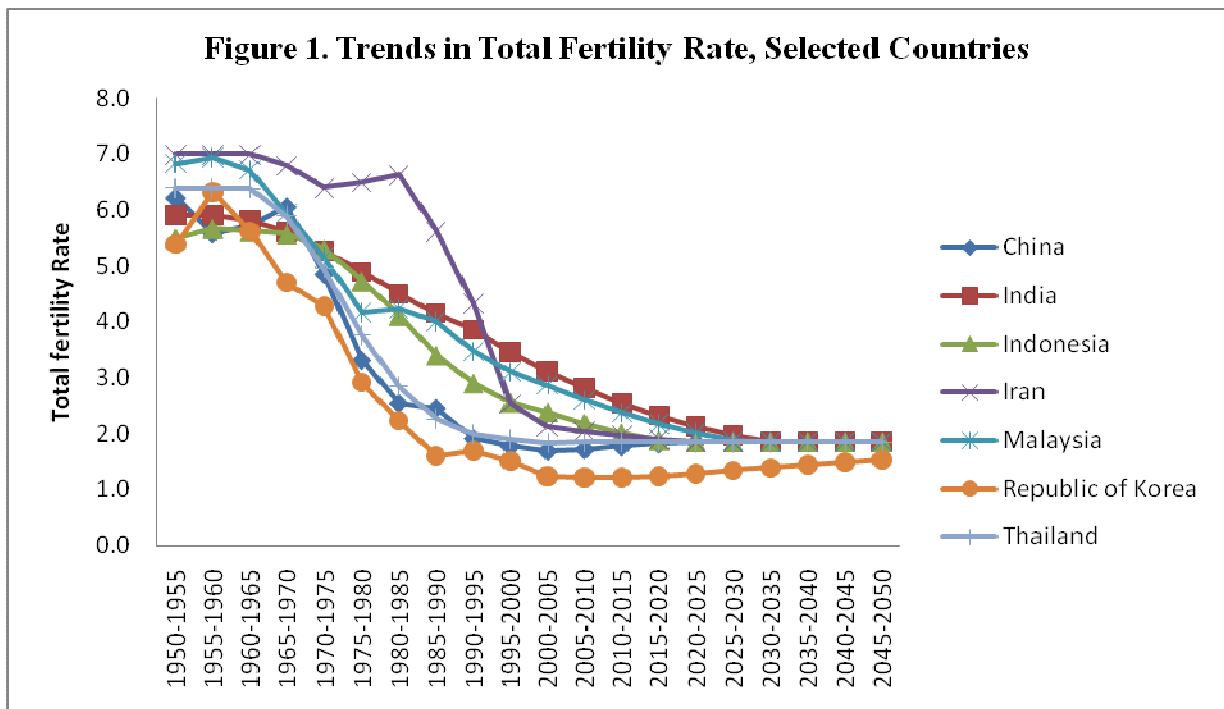

Figure 1. Trends in Total Fertility Rate, Selected Countries

Table1. Indexing the fertility Decline from its Onset.

Country	China	India	Indonesia	Iran	Malaysia	Republic of Korea	Thailand
1950-1955							
1955-1960						1.00	
1960-1965					1.00	0.89	
1965-1970	1.00				0.88	0.74	1.00
1970-1975	0.80		1.00		0.77	0.68	0.84
1975-1980	0.55		0.89		0.62	0.46	0.64
1980-1985	0.42		0.78	1.00	0.63	0.35	0.48
1985-1990	0.41		0.64	0.85	0.60	0.25	0.38
1990-1995	0.32	1.00	0.55	0.65	0.52	0.27	0.34
1995-2000	0.29	0.90	0.48	0.38	0.46	0.24	0.32
2000-2005	0.28	0.81	0.45	0.32	0.43	0.20	0.31
2005-2010	0.29	0.73	0.41	0.31	0.39	0.19	0.31
2010-2015	0.29	0.66	0.38	0.30	0.35	0.19	0.31
2015-2020	0.30	0.60	0.35	0.29	0.32	0.20	0.31
2020-2025	0.31	0.55	0.35	0.28	0.30	0.20	0.31
2025-2030	0.31	0.51	0.35	0.28	0.28	0.21	0.31
2030-2035	0.31	0.48	0.35	0.28	0.28	0.22	0.31
2035-2040	0.31	0.48	0.35	0.28	0.28	0.23	0.31
2040-2045	0.31	0.48	0.35	0.28	0.28	0.24	0.31

In Table 1, index of fertility decline has been computed from its onset for each country. Among the three subregions, the extent to which fertility has declined during 1960s to 1980s is most pronounced in East Asia. The fertility decline was most rapid in China and Korea. However, the speed of fertility decline had been accelerated in 1975-1980, in China there are small fluctuation around 1990s but in Republic of Korea fertility is still declining at faster rate than that of China. In the case of Republic of Korea, fertility started declining from 1955-60, but it was most during 1970s and 1980s and reached below replacement fertility in 1985. On the other hand, Thailand's fertility rate has declined from 6.4 children per woman in the 1950s to 1.9 children per woman in the 1990s a decline of 71 percent, fertility decline was rapid only during the period 1965-70 and reached below replacement level in the 1990s. Although the fertility rate for Malaysia was close to the level of Thailand in 1950s, the decline was very slow. Further, the fertility rate in Malaysia declined from 1955-60 until 1975-80 and remained at the same level between 1975 and 1990 and after that, it has declined slowly. The possible explanation for that may be the Malaysian policy of delaying replacement level fertility to achieve labor force of 70 million. The fact is that vigorous family planning information campaigns have been entirely absent in Malaysia during this period and decline in fertility became gradual undoubtedly since Prime Minister Mahathir's September 1982 speech, which set a population target of 70 million proclaim for the country-roughly a fivefold increase-and proclaimed a more pronatalist stance. This policy change had nothing to do with the initial upsurge in Malay fertility that began in 1978, but it served to strengthen pronatalist sentiments and led to an increasingly cautious approach by the family planning program (Ogawa, 1994).

The pace of decline was almost similar between the years 1950 and 1980 among India and Indonesia. However, the differences become visible after 1980s. These differences may be due to increasing impact of Indonesian family planning program. It is expected that Indonesia will attain

replacement level fertility during 2010-2015 and India during 2020-2025. It should be noted that in India the internal differences (state-level differences) are as pronounced as those between countries are. The major southern states are perhaps two decades ahead in their experience of the demographic transition compared with the big, populous northern and eastern states. In recent years, Specifically, Iran's total fertility rate has declined from seven children per woman to 2.12 children- around 70 percent of declines in the four decades.

Figure 2. Trends in life expectancy at birth, selected countries
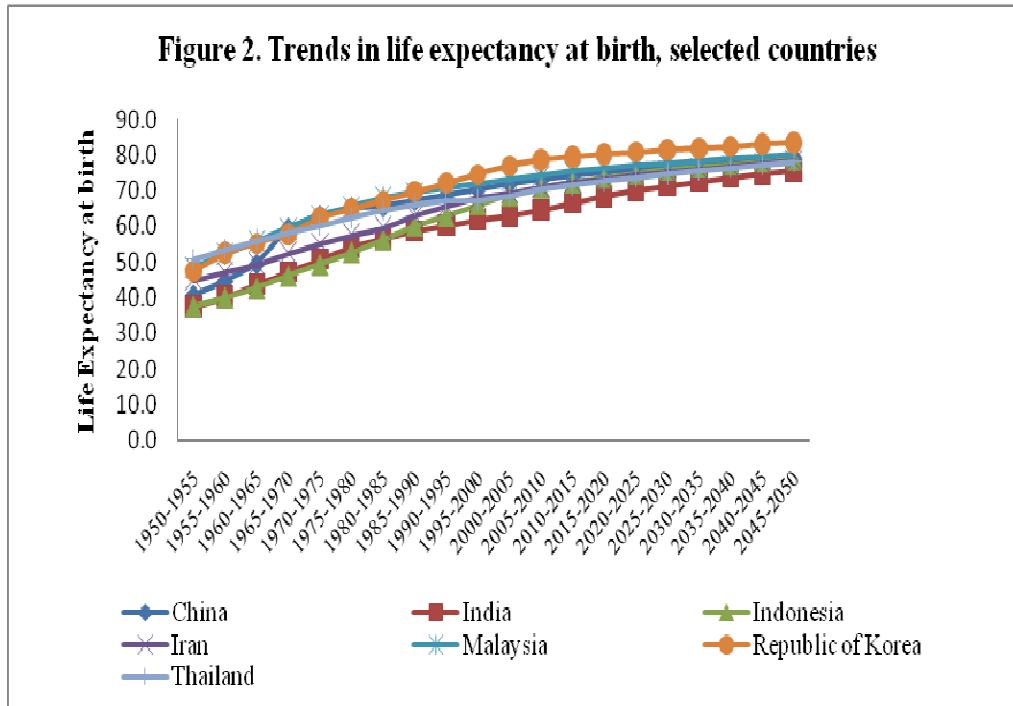
In general, Asia has made enormous strides in lowering mortality and improving health (Caldwell, 1999). Countries that have experienced rapid fertility declines over the past three decades have shown wide variations in the levels of infant mortality rate and life expectancy at birth (see Appendix1). The life expectancy at birth has increased dramatically in all the countries between 1950 and 2005 *(Figure 2)*. The largest increases were observed in Indonesia (82 percent) and China (76 percent) followed by India (68 percent) as these countries had a very low life expectancy at birth during the initial year. In general, the gap in the life expectancy at birth has been narrowing down among all these countries but one can still hope for even more progress in this direction

Age Structural Changes and Window of Opportunity

Because of both pronounced fertility declines and remarkable mortality improvements among all the selected countries, the age composition of each country is changing swiftly. As shown in Table 2, from 1950 to 2000 total dependency ratio has fallen significantly in all the countries. The extent to which the dependency ratio has fallen is closely related to the magnitude with which fertility has been declined. In Republic of Korea, there was one elderly to every three children in the 2005. Countries like China, Korea and Iran with sharp decline in past fertility will suppose to have more prre pronounced ageing effect among these countries in next three four decades.

Table 2. Age Structural Changes for Selected Countries in Asia, 1950-2050.

Country	1950 Dependency Ratio				1975 Dependency Ratio				2000 Dependency Ratio			
	Total	Young	Aged	*Ig*	Total	Young	Aged	*Ig*	Total	Young	Aged	*Ig*
China	61.3	54.0	7.3	13.4	78.3	70.4	7.8	11.1	46.5	36.5	10.0	27.3
India	68.4	63.1	5.2	8.3	77.0	71.0	6.0	8.5	65.6	57.9	7.6	13.1
Indonesia	75.9	68.9	7.0	10.2	82.0	76.0	6.0	7.9	54.3	46.8	7.6	16.2
Iran	79.9	70.3	9.5	13.6	92.3	85.6	6.7	7.9	65.6	58.1	7.5	12.8
Malaysia	85.2	75.7	9.4	12.5	84.5	77.7	6.8	8.8	59.6	53.4	6.2	11.6
Republic of Korea	80.8	75.4	5.4	7.2	70.5	64.3	6.1	9.5	39.3	29.0	10.3	35.6
Thailand	83.0	77.1	5.9	7.6	84.8	78.2	6.7	8.5	43.5	33.9	9.6	28.4

Country	2025 Dependency Ratio				2050 Dependency Ratio			
	Total	Young	Aged	*Ig*	Total	Young	Aged	*Ig*
China	46.3	26.3	20.0	76.1	63.9	25.1	38.9	154.9
India	48.1	36.7	11.4	31.0	48.6	27.0	21.5	79.7
Indonesia	43.3	30.4	12.9	42.5	56.4	27.3	29.1	106.3
Iran	43.3	33.1	10.2	30.7	55.1	27.5	27.6	100.6
Malaysia	47.7	34.9	12.9	36.9	52.9	28.0	24.9	89.1
Republic of Korea	46.8	18.0	28.7	159.3	83.5	19.1	64.4	337.5
Thailand	48.8	26.6	22.2	83.2	64.2	25.9	38.3	147.5

Note: *Ig* denotes Index of Ageing. Source: United Nations Secretariat, World Population Prospects; 2006.

There will be older persons than children in the Southeast region for the next half of the century. Consequently, the age structure becomes top heavy as birth rates fall and more and more countries age faster than it can replenish its young. Effect of fertility decline is immediately reflected in ageing index. A marked increase in this index is observed among several developing countries. Those countries, which have shown increase in aged population, have experienced marked rise in their values of index of ageing. ASEAN countries (Indonesia, Malaysia and Thailand) have comparable index of ageing in 1975, Thailand is expected to go under fast process of population ageing in Twenty-first century. The projected value of this index suggest that the countries which have experienced or are undergoing the rapid fertility transition are likely to experience fast population ageing, e.g. Iran.

Dependency Burden

The dependency ratio is one of many indicators that allow locating that "opportunity window" along the time. Total Dependency ratio consists of the sum of number of children and adolescents (0-14) and elders (65 years and over) divided by people at working ages (15-64 years). Dependency ratio is a raw and basic indicator; but it allows capturing the transformations in age structure as the demographic transition advances. In Table 2, the evolution of dependency ratio is presented. It can be observed, how during the transition phase, the profile of total indicator was almost completely determined by young dependency ratio (sum of children and adolescents aged 0-14 divided by working ages population groups), reflecting the presence of high demographic growth. The differential between a faster reduction in children and adolescents (0-14 years old) originated by fertility declining than that elders taken place by increasing survival proportions, makes the total dependency ratio to

stay around a minimum for some years; later, it increases again quickly as a consequence of the aging process, reflected in a raising elderly dependency ratio. There is not a precise value of dependency ratio that allows fixing temporarily to demographic bonus. Here, the period when dependency ratio is less than 60 percent (as prescribed by several authors) has been taken. We expect that this proportion will decrease less than a half, then, if the work force supply is adequate and rationally capitalized, it will turns into significant increase in savings and investment. In that sense, one speaks of demographic bonus or dividend.

Based on Dependency ratio and favored difference in growth rate of 15-64 age population and total population, we can set the start and end year of Demographic Opportunity phase as:

Table 3. Timing of demographic opportunity in Selected Asian countries.

Country	China	India	Indonesia	Iran	Malaysia	Republic of Korea	Thailand
Onset	1985	2005	1995	1990	2000	1980	1985
End	2010	2035	2020	2005	2025	2010	2000

Growth of working age Population and Demographic Opportunity

Demographic transition could contribute significantly to economic growth .In the context of East Asia's miracle ,it was noted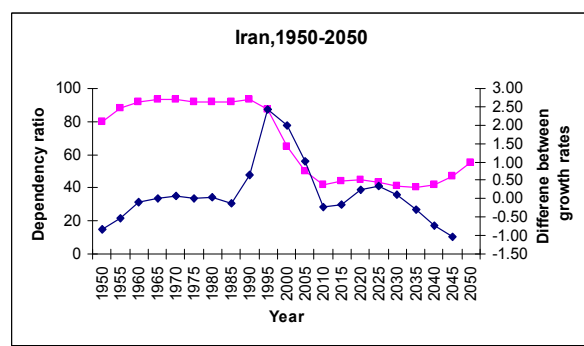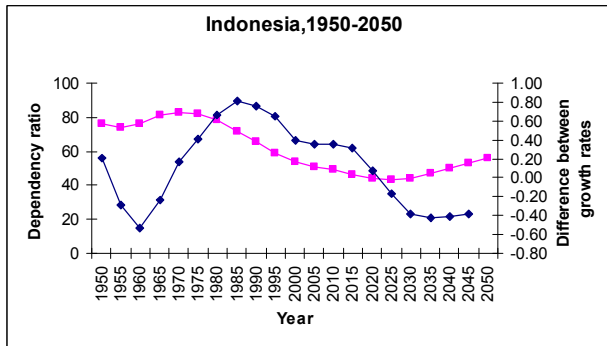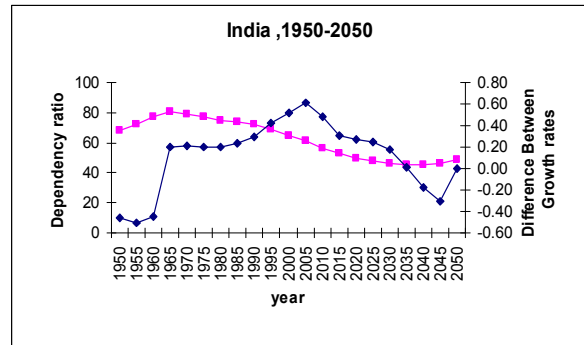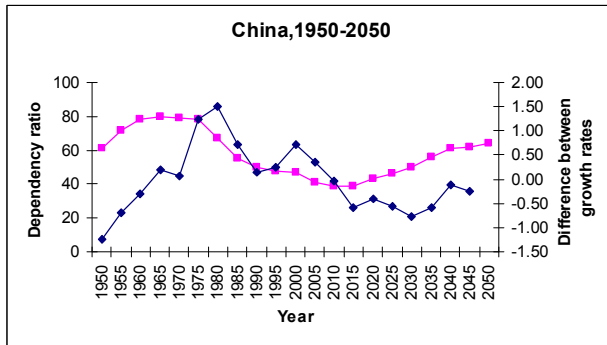 that working age (15-64) population grew at faster rate than the dependent population during 1965-1990, which provided an opportunity for raising the saving rate and expanding the productive capacity of workers. Using the similar concept, we have calculated –when the period of demographic bonus occur during the transition. From Appendix 3 , we have plotted the difference between projected growth rate of working age population (15-64 age group) and that of total population(Bhat,2001) for the selected Asian countries(*Figure 4)*.

It is evident that the differences between the growth rates in the period of transition determine the Window of demographic opportunity and its onset. The timing of onset is quite different in Asian countries. China and Korea had almost completed the phase of demographic bonus and now they have to plan for the aged population in the country. On the other hand, most of the Southeast Asian countries are in the midst of that (Indonesia and Thailand entered from1990s) and their prime focus is to utilize the opportunity in proper way, before getting it exhausted in vein. Malaysia is a little lagged behind them as it starts getting demographic benefit from late 1990s. In case of South –central Asia India will start getting the demographic bonus from 2005, Iran with the recent drastic change in its age structure will also get opportunity in labor force strength but the policy environment is most important to exploit the available human resources.

Figure:4 Demographic Opportunity in selected Asian countries

China,1950-2050

India ,1950-2050

Indonesia,1950-2050

Iran,1950-2050

Malaysia,1950-2050

Republic of Korea,1950-2050

Thailand,1950-2050
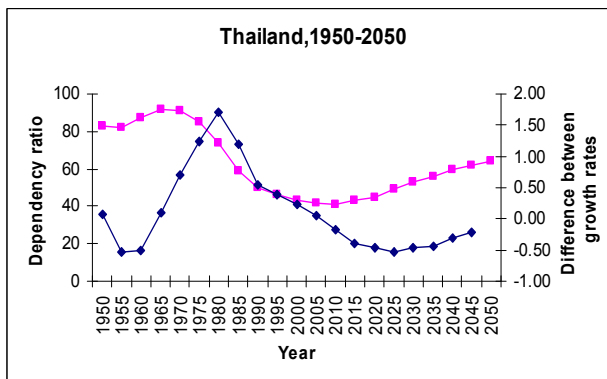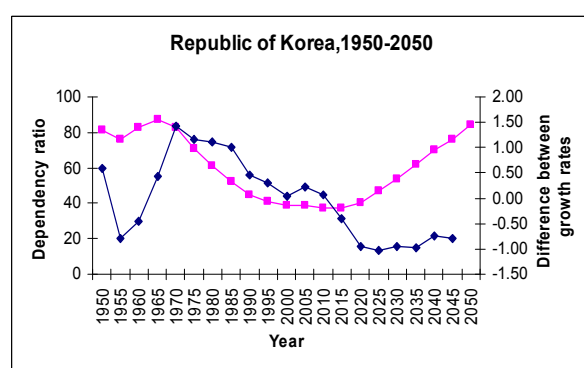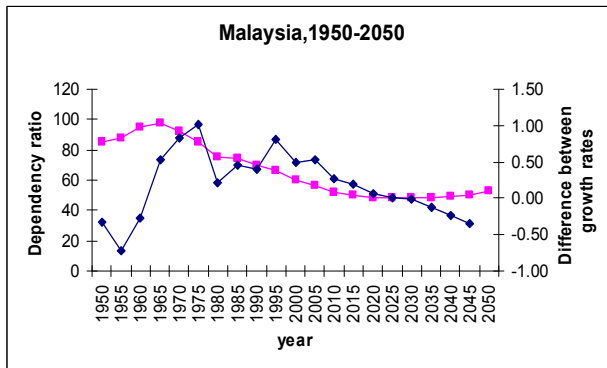
Implication on Labor force

It has been clear that (Appendix 3) in India, Iran, Malaysia working age (15-64 age groups) population is growing faster by at least one percent point to the total population, and that may benefit them in formation of human capital. Appendix 4 gives us the percentage of economically active population (proportion of population above age 15 that is economically active). The female labor force participation is low in all the countries and this implies a lack of involvement in the formal sectors. In general, estimates of female labor force are lower than those of men and are not comparable internationally; this reflects the fact that for women, demographic, social and cultural norms and trends determine whether their activities are regarded as economic. However, it is expected to increase among all the countries and gap between genders will narrow down over the time, but still Iran and India have low female labor force participation, which is not favourable if they want to benefit from the window of opportunity.

Conclusion

Since 1960s, the Asia as a whole is emerging as the most dynamic part of the world. This paper explores the process of age structural transition in some selected countries of Asia in search of so called window of opportunity, whether it is still available or slip off. We can say that though the East Asian countries are far ahead of other Asian countries in terms of demographic transition but countries like India, Iran and Malaysia are in stage, which is more advantageous. They can learn from the experience of East Asian countries and plan ahead of time to bring policies to utilize the bulge of workforce and programs of combating ageing problem. It has been observed, that countries having sharp decline in fertility, have been exposed for shorter duration to the phase of demographic dividend. Current situation of China, Korea and Thailand gives us the same impression and in future, similar situation may be observed in case of Iran. While Countries like Malaysia, Indonesia and India with slower pace of decline can enjoy the fruit of demographic opportunity for longer period.

Although over the period, it seems that all of them are globally converging towards the same path but we cannot ignore the uncertainty attached with decline in fertility and mortality, which may be because of country specific cultural and traditional and sometimes political factors (like Malaysia). As described above, window of demographic opportunity is temporary. The second phase of dividend, which may be more stable, will come from right policy implementation by governments. For country like India, we need to revise our educational system to meet the future demand of skilled labor force, e.g. growing IT Sector. Similarly, in other countries we can identify the specific sector and create favorable environment accordingly.

References

Bhat, P.N. Mari, (2004). Demographic scenario, 2025. Institute of Economic Growth, New Delhi.

Bloom, D. and Williamson, J.G. (1998), *Demographic Transition and Economic Miracles in Emerging Asia. The World Bank Economic Review, Vol.12, No.3*

Bongaart, J.,(2000). *Beyond Six Billion. Published by National Academy Press*.

Bloom, D*.,* Canning, D. and Sevilla, J., (2003) *The Demographic Dividend. A new perspective on consequences of population change.*

Caldwell, John C., 1999, "Good health for many: The ESCAP region, 1950-2000", Asia-Pacific Population Journal 14(4): 21-38.

Hussain, A., Cassen, R. and Dyson, T., (2006). *Demographic transition in Asia and its consequences, accessed from www.asia2015conference.org*

International Labor Organization, *Yearbook of Labor Statisics, 2002.*

Jones, G.W.,(2004)., *Asian demographic transitions: Transitions to what? Paper presented at 12th Biennial Conference at Australian Population Association, 15-17 September, 2004, Canberra, Australia*

Navneetham, K. (2002), "Age Structural Transition and Economic Growth: Evidences from South and Southeast Asia", *Asian Meta Center Research Paper Series No. – 7, National University of Singapore*

Ogawa T, (1994). "Demographic Change and Human Resource Development in the Asia-Pacific Region: Trends of the 1960s and 1980s and future prospects", Nupri reprint series No. 48, Nihon University Population Research Institute, Japan

United Nations, *World Population Prospects: The2006 Revision (Available on INTERNET).*

Appendix 1. Percentage change in TFR of selected countries during transition period

Country	China	India	Indonesia	Iran	Malaysia	Republic of Korea	Thailand
1950-1955 to 1955-1960	-10.1	0.0	3.3	0.0	1.6	17.2	0.0
1955-1960 to 1960-1965	2.3	-1.4	-0.9	0.0	-3.2	**-11.1**	-0.2
1960-1965 to 1965-1970	5.9	-3.6	-0.9	-2.9	**-11.6**	-16.3	**-7.7**
1965-1970 to 1970-1975	**-19.8**	**-6.2**	**-4.8**	-5.9	-13.3	-9.1	-15.9
1970-1975 to 1975-1980	-31.7	-7.0	-10.8	1.6	-19.2	-31.8	-24.2
1975-1980 to 1980-1985	-23.2	-8.0	-13.1	2.0	1.9	-23.6	-24.2
1980-1985 to 1985-1990	-3.5	-7.8	-17.3	**-15.2**	-5.7	-28.3	-20.4
1985-1990 to 1990-1995	-22.0	-7.0	-14.7	-23.0	-13.3	6.2	-11.9
1990-1995 to 1995-2000	-7.3	-10.4	-12.1	-41.6	-10.7	-11.2	-5.0
1995-2000 to 2000-2005	-4.5	-10.1	-6.7	-16.2	-7.4	-17.9	-3.7
2000-2005 to 2005-2010	1.8	-9.6	-8.4	-3.8	-9.4	-2.4	1.1

Appendix 2. Trends of mortality, selected Asian countries

Infant Mortality Rate

Period	China	India	Indonesia	Iran	Malaysia	Republic of Korea	Thailand
1950-1955	195	165.7	201.2	185.7	98.8	115.0	118.1
1960-1965	120.7	140.3	165.8	153.7	62.7	70.0	83.4
1970-1975	61.1	116.8	125.5	114.8	42.4	38.0	55.8
1980-1985	37.8	94.7	88.8	88.4	28	23.0	34.5
1990-1995	29.9	77.2	58.4	54.7	15.1	14.1	20.5
2000-2005	25.7	62.5	34.2	37.2	10.1	4.7	11.9
2010-2015	20.5	48.8	21.3	25.4	8.0	4.0	9.5
2020-2025	16.5	38.9	15.0	18.1	6.6	3.8	7.8
2030-2035	13.5	31.6	11.5	13.5	5.9	3.6	6.5
2040-2045	11.1	25.4	9.4	10.7	5.3	3.4	5.8
Life expectancy at birth							
1950-1955	40.8	37.4	37.5	44.9	48.5	47.5	50.8
1960-1965	49.5	43.6	42.5	49.3	55.7	55.3	56.1
1970-1975	63.2	50.7	49.2	55.2	63	62.6	60.4
1980-1985	65.5	56.6	56.2	59.6	68	67.1	64.6
1990-1995	68.7	60.2	62.7	65.7	70.7	72.2	67.3
2000-2005	72.0	62.9	68.6	69.5	73.0	77.0	68.6
2010-2015	74.0	66.6	72.2	72.3	75.2	79.6	71.7
2020-2025	75.8	70.0	74.7	74.5	76.8	80.8	73.8
2030-2035	77.4	72.6	76.5	76.2	78.2	81.9	75.7
2040-2045	78.7	74.7	78.0	77.7	79.5	83.0	77.3

Source: World Population Prospects: The 2006 Revision. Highlights, United Nations.

Appendix 3. Annual growth rate of population in total and in 15-64 working age population, 1950-2050.

Country	China	India	Indonesia	Iran	Malaysia	Republic of Korea	Thailand
1950-1955	1.87	1.73	1.67	2.42	2.72	2.55	2.84
1970-1975	2.21	2.22	2.32	2.93	2.44	2.00	2.49
1990-1995	1.10	2.08	1.53	1.86	2.58	0.97	1.16
2000-2005	0.67	1.62	1.31	0.97	1.95	0.46	0.76
2010-2015	0.54	1.31	0.98	1.33	1.47	0.18	0.50
2030-2035	0.00	0.63	0.50	0.63	0.75	-0.43	0.01
2045-2050	-0.32	0.32	0.10	0.26	0.41	-0.89	-0.27

Growth Rate of 15-64 age population							
Country	China	India	Indonesia	Iran	Malaysia	Korea	Thailand
1950-1955	0.63	1.27	1.88	1.60	2.40	3.14	2.91
1970-1975	2.27	2.43	2.49	3.00	3.26	3.42	3.19
1990-1995	1.25	2.38	2.28	2.51	2.99	1.44	1.69
2000-2005	1.39	2.14	1.71	2.97	2.45	0.49	0.98
2010-2015	0.49	1.80	1.34	1.12	1.74	0.24	0.33
2030-2035	-0.76	0.81	0.12	0.73	0.74	-1.38	-0.46
2045-2050	-0.57	0.02	-0.28	-0.77	0.06	-1.69	-0.49

Difference Between the growth rate of working age population and growth rate of total population (in percentage point)							
Country	China	India	Indonesia	Iran	Malaysia	Korea	Thailand
1950-1955	-1.24	-0.46	0.21	-0.82	-0.32	0.59	0.07
1970-1975	0.06	0.21	0.17	0.07	0.82	1.42	0.70
1990-1995	0.15	0.30	0.75	0.65	0.41	0.47	0.53
2000-2005	0.72	0.52	0.40	2.00	0.50	0.03	0.22
2010-2015	-0.05	0.49	0.36	-0.21	0.27	0.06	-0.17
2030-2035	-0.76	0.18	-0.38	0.10	-0.01	-0.95	-0.47
2045-2050	-0.25	-0.30	-0.38	-1.03	-0.35	-0.80	-0.22

Appendix 4.Percentage of Economically active population,1980-2015

Year	China	India	Indonesia	Iran	Malaysia	Republic of Korea	Thailand
1980	79.5	61.9	63.5	51.1	60.2	59.4	81.8
1985	79	61.6	62.0	51.6	60.1	57.5	81.9
1990	79.2	61.2	65.8	51.9	62.9	60.2	81.8
1995	79	60.5	65.7	51.1	62.9	61.8	75.4
2000	77.8	59.2	67.6	53.0	63.6	60.8	73.5
2005	75.7	58.5	67.8	56.6	64.3	62.0	73.0
2010	74.6	58.0	68.7	60	63.8	61.4	72.7
2015	72.8	57.6	69.4	62.8	64.2	61.2	71.8

Percentage of Economically active female population,1980-2015

Year	China	India	Indonesia	Iran	Malaysia	Republic of Korea	Thailand
1980	71.1	36.0	44.0	20.3	42.2	43.6	76
1985	71.6	36.3	43.5	20.4	42.1	42.8	75.7
1990	73.0	36.3	50.3	21.5	44.1	47.1	75.4
1995	72.6	35.4	49.4	25.7	43.8	48.5	66.5
2000	71.1	34.1	50.7	31.6	45.4	48.6	65.4
2005	68.8	34.0	51.0	38.6	46.5	50.2	65.6
2010	67.1	33.8	52.4	44.4	47.6	50.3	66.2
2015	64.8	33.8	53.6	48.4	49.3	50.5	65.8

Source:ILO,Labour statistic Database-1998-2007