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How Relevant Is Neo-Malthusianism in Present-Day Asia?¹

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The beginning of neo-Malthusianism

The second half of the twentieth century has witnessed profound changes in the world. Most of the Asian and African countries that were under foreign rule became independent. Industrial development occurred at a rapid pace with major leaps in electronics, communications and computers and the green revolution helped increase food production worldwide. National governments and international organisations launched education and health programmes especially in the developing countries. Mortality declined throughout the world and many developing nations began to catch up with the developed world in longevity. And the population increased at a rapid rate, more than doubling over the period, from about two and a half billion at the middle of the century to six billion just before the turn of the century, a pace unprecedented in recorded history. The huge growth of the population did not come as a surprise. With declining mortality and nearly unregulated marital fertility in large parts of the world, growth at a high rate was bound to occur. With this realisation, and with the apprehension that rapid growth would affect living conditions of people adversely, there were demands for policies and programmes to curb the rate of growth by promoting fertility regulation. Neo-Malthusian thinking became strong in many parts of the world and neo-Malthusian policies and programmes were sought to be introduced in countries that were expected to experience large growth. This was particularly so in Asia much of which was categorised as poor and underdeveloped or developing. During the three decades of the 1950s, 60s, and 70s, neo-Malthusian programmes, generally labelled as family planning programmes, were introduced in many Asian countries, beginning with India, most operated by the national governments and some by non-government organisations.

Though government operated or supported neo-Malthusian programmes began only in the 1950s, neo-Malthusian thinking was not new. After Malthus published

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his famous essay, over two centuries ago, the issue of population growth was widely discussed by thinkers around the world. It did come under criticism from many directions the most severe attack was perhaps from Marx. Many disagreed with Malthus's pessimistic views, the so called positive checks on population and vice and misery. It was felt that Malthus did not give adequate weight to human ingenuity and ability to develop technology. The developments of the nineteenth century too did not support Malthusian thinking. Though there were wars and famines, living conditions generally improved especially in the western world over the century. Migration to the new world and control over a number of Asian and African countries many of which came under direct rule or as protectorates of European powers provided access to more land and other resources to populations of European origin. Besides, there were major technological developments. Malthus seemed to be discredited. Yet, the Malthusian thinking did gain many supporters who felt that the expansion may not be possible indefinitely and land and resource constraints will have to be faced sooner or later. However, most of them did not subscribe to Malthus's opposition to contraception and instead promoted birth control and thus the neo-Malthusian movement emerged. In addition to the issue of population growth, the positive impact birth control would have on women's health and overall on women's lives by preventing frequent childbearing was a factor in neo-Malthusian campaigns though some also brought in eugenic objectives.

For long, the campaigns and efforts of the neo-Malthusians did not get support from governments and wide sections of society. The pace of population growth during the nineteenth century was slow, below 1 percent annually, and it took a century for the population to double, in contrast to the doubling time of 25 years that Malthus had mentioned in his essay. There was mortality decline in the western world, but fertility too declined on account of rise in age at marriage, some use of contraception and in some places celibacy, and the population growth rate remained moderate. In other parts, especially in Asia and Africa, mortality remained fairly high keeping the growth rate low in spite of high fertility and hence strong population pressures were not felt. Further, the contraceptives available up to the middle of the twentieth century were quite awkward and difficult to use. Propagating these contraceptives involved mention of the sexual act or organs and thereby invited charges of obscenity. Besides, use and distribution of contraceptives and publication of material on these was illegal in many countries. It is known that

some of the leaders of the movement, including Dr. Knowlton, Dr. Annie Besant, Charles Bradlaugh, and in India R.D. Karve, faced persecution.

The situation changed after the end of the Second World War. The developing countries, called underdeveloped at the time, introduced or expanded public health services. This was particularly so in Asia where many countries had become independent of foreign rule or domination within a decade of the end of the war and could launch their own development programmes. International organisations became active in health programmes especially in the developing world. Mortality decline was perceptible and with persistent high fertility, populations began to grow rapidly.Besides, most of the Asian countries were poor. In global development circles the future of many of the populations appeared dismal, with famines and misery imminent. This led to demands for and introduction of neo-Malthusian programmes. How relevant are these in today's Asia?

Demographic Situation in Asia: early 1950s

In order to begin to address the question, we must review the conditions under which the programmes were instituted in the first place. What was the demographic situation in Asia at the middle of the last century? Fertility was high, with the total fertility rate (TFR) above 5 in most of the countries (Table 1). Mortality had begun to decline but the level was still quite high with life expectancy hovering around 40 years for most Asian countries; countries with life expectancy below 40 years made up a third of Asia's population and expectancy between 40 and 50 years about half. As a result, growth rate was moderately high, just below 2 percent per annum. But for many countries, accounting for a fifth of Asia's population, the rate had crossed two percent and in a few, 3 percent. Moreover, mortality was expected to fall further, and as a consequence the population growth rate was expected to rise. Malthusian concerns emerged. There were calls for action to control population growth by lowering fertility and specifically to introduce family planning programmes. But this required a clear understanding of the impact of population growth on development.

The decades of 1950s and 60s saw considerable debates on this. The United Nations took up the issue quite seriously and supported research on interrelationship between demographic and socioeconomic variables. But this required good data on demographic parameters. In the past, regular population censuses were not common in many Asian countries and very little information on the levels of fertility

and mortality was available. Estimation of demographic parameters was based on very rough methods and often on good guesses. But soon many countries began to conduct censuses yielding reliable estimates of population size. The United Nations prepared guidelines and manuals for conducting censuses and methods of estimating demographic parameters indirectly from available data were developed. In the process, considerable information on population size and growth and measures of fertility and mortality became available facilitating scientific studies of population-development linkages. The analysis by Coale and Hoover (1958) showed that slowing down the rate of population growth would be beneficial. Though the detailed analysis was for India, the implications were applicable to other low income countries as well. On the other hand, Boserup's work questioned the basic Malthusian thesis on the negative effect of population growth on livelihoods (Boserup, 1965). However, overall the neo-Malthusian thinking dominated. Gradually, the idea of family planning programmes received increased acceptance in international and national development circles and in civil society. Neo-Malthusian policies and programmes came to be widely accepted as necessary or, at the very least, desirable, for the developing countries (for an account of population policies in various countries, see United Nations, 2013b). The United Nations and other international development organisations got into the act and the U.N. Trust Fund was established.

Not that there was no dissent. The Soviet Bloc was not in favour of such programmes because of Marxian criticism of Malthusian thinking. China also considered introduction of a family planning programme but rejected the idea on similar grounds. But the Marxist opposition was to treating a neo-Malthusian approach as a way to overcome the poverty of the developing world and not to the use of contraception per se. In fact, contraceptives and induced abortions were allowed and made easily available in the socialist world in order to facilitate liberation of women from traditional roles and frequent childbearing and China too opened birth control clinics. There were reservations from religious organisations as well and these were both to the principle of fertility regulation and to the use of contraception as such. But overall, especially in Asia, neo-Malthusian thinking won over and family planning programmes were launched by various national governments. India was the pioneer in this, soon followed by Pakistan, and gradually by other countries. Voluntary organisations also introduced substantial family planning programmes in many parts of Asia most of which received national government and international support.

The programmes promoted a small family norm and provided contraceptive services often free of cost. But the initial steps were hesitant. While contraception gradually came to be accepted by the society, in contrast to the strong condemnation of it in the past, and legal hurdles were removed, the difficulty in use was a problem as mostly some barrier methods and spermicides were available at that time. Natural methods were also promoted, partly due to reservations on the use of artificial contraceptives. The surgical procedure of sterilisation was available but given the then state of medical facilities available in the developing countries, was not easily accessible. But over time, two new and easy to use contraceptives, the oral pill and the inter-uterine device (IUD or IUCD), were developed allowing greater choice.

Demographic Situation in Asia: early 1970s

Contraceptive acceptance increased through the 1950s and 60s but only moderately except in some relatively more developed countries and in cities. Some fertility decline did take place through the late 60s, yet by the early 1970s the TFR was over 5 points in half of Asia (Table 2). There was an impressive decline in mortality with the average life expectancy increasing by 14 years over two decades. As a result, the population growth rate reached a high level through almost the entire Asia by the early 1970s. The growth rate was over 2 percent in 38 countries covering 93 percent of Asia's population. The net reproduction rate (NRR) also increased marginally.

The high growth rate brought in criticism of the family planning programmes. It was felt that the efforts of various countries and international organisations had failed. While the role of mortality decline in keeping the rate of growth fairly high was clearly understood, and this decline was certainly desired, the failure of the family planning programmes to make a dent in fertility became an issue. The criticisms were both in scholarly circles and in popular writings; the paper by Kingsley Davis and the popular book by Mahmood Mamdani are noteworthy (Davis, 1967; Mamdani, 1972). Two broad lines of explanations for the failure emerged. One was the weak implementation of the programmes and lack of political will and the other was the inevitability of failure in the absence of adequate, or, a threshold level of, socioeconomic development.

The response to the first was to strengthen the programmes and try out new strategies including possibly bringing in greater pressures on people to accept

contraception. This many programmes did. The United Nations, and many foundations, notable among these being the Population Council, increased funding, research, and technical support to programmes. The World Bank also began to support population programmes. Writings by eminent scientists such as Paul and Anne Ehrlich and Garrett Hardin (Ehrlich, 1968; Hardin, 1968) which highlighted the severely adverse likely impact of rapid population growth made a strong impression on civil society and policy makers. The talk of population explosion and population bomb became common. Droughts occurred in many countries, food shortages were seen frequently and these were routinely blamed on population growth. Calls on national governments for strong action in family planning became widespread. Many countries, Indonesia, Thailand, Sri Lanka, Malaysia, Nepal, brought in programmes in the late 1960s and early 1970s. India had begun the strengthening of its programme with the introduction of the target approach. In 1970, China, which had hitherto rejected the neo-Malthusian approach, introduced one of the strongest programmes ever under the slogan of Wan-Xi-Shao which brought in 'birth planning'. By the early 1970s, family planning programmes were functioning in most of South, Southeast, and East Asia.

The concern about failure of fertility decline in the absence of adequate development became a major point of debate in the 1974 World Population Conference that was organised in Bucharest at this juncture. Given the concern over population growth, it was felt that the conference would call for stronger action in family planning. The findings of the major study 'Limits to Growth' broadly supported Malthusian thinking pointing out to the imminent depletion of certain important resources (Meadows et al., 1972). But during the Bucharest deliberations, the developing countries strongly argued that the rich countries could support the developmental efforts of the poor countries which, in turn, would help lower fertility, instead of blaming the population growth in poor countries for their underdevelopment(for a commentary, see Finkle and Crane, 1975). The slogan 'Development is the best contraceptive' was coined. But this did not cause any abandonment or weakening of the ongoing family planning programmes. While the role of development in lowering fertility was recognised, massive developmental aid from the rich countries was not forthcoming and probably not expected and the developing countries persisted with the family planning programmes. The Indian programme was strengthened soon after the Bucharest conference, with a population policy being announced in 1976 and the well-known intensification in

the same year. The Chinese birth planning campaign (about which not much was known outside China at the time of the Bucharest conference) continued. Moreover, in 1979, China brought in the one child campaign obviously aiming to bring fertility below replacement level. Bangladesh also launched its programme. There were some setbacks and some moderation, notably the 1977 setback and subsequent moderation in India, some rethinking or moderation in Iran in the late 1970s and Indonesia in the 1980s. But these were not attributable to the so-called Bucharest prescription. Essentially, the slogan at Bucharest, which received so much attention, boosted research on population development linkages but did not impact programmes. In the 1984 Mexico City International Population Conference, the developing countries did not harp on the Bucharest prescription and broadly supported neo-Malthusian programmes (see Finkle and Crane, 1985).

Demographic Situation in Asia: early 1990s

Whether on account of the programmes or not, Asia experienced steep decline in fertility through the 1970s and 80s. By the early 1990s, the TFR had fallen below 3, from a level of 5 in the early 1970s. The TFR reached a level below 5 in 35 countries covering about 95 percent of Asia's population, below 4 in countries covering 88 percent of population and below 3 in counties that accounted for 52 percent of population (Table 3). The sharp decline in China through the 1970s made a major impact given its size. But fertility declines in other large counties, India, Indonesia, and Bangladesh were also notable. Mortality decline continued, but the pace was slower, with life expectancy increasing by 9 years in contrast to 14 years in the previous 20-year period. The fertility decline now more than made up for the mortality decline and the net reproduction rate also fell correspondingly to 1.26 from a high 1.97 in the early 1970s. By the early 1990s, the NRR in Japan, South Korea, Singapore, Thailand, China (including Hong Kong and Macao), and Georgia which together had 46 percent of Asia's population, fell below 1, the goal of many neo-Malthusian programmes. But being a synthetic measure, the NRR does not carry much significance in public discussions; the population growth rate is what really matters. Given the phenomenon of population momentum, the growth rate does not fall as rapidly as the net reproduction rate does. But the fertility decline during the 1970s and 80s was so steep that soon the growth rate also showed a clear decline. Overall, for Asia as a whole, the growth rate fell from 2.3 percent per annum in the early 1970s to 1.7 percent in the early 1990s. In about half the countries, which included most large countries and made up 80 percent of Asia's population, the growth rate was 2 percent or lower.

In 1994, the International Conference on Population and Development (ICPD) was held in Cairo. By this time, as noted above, fertility had declined remarkably in most Asian countries. Thus, strong neo-Malthusian pressures had eased in many regions. East Asia and most of Southeast Asia were showing low replacement level or even lower fertility. The alarmist calls of the 1960s and 70s were no longer so loud. There did not seem to be panic on the population issue and hardly any talk of population explosion. At the same time, concern had emerged about the strategies of some neo-Malthusian programmes. In particular, the coercive tactics employed in some countries came under severe criticism. The conference came out with a plan of action that ruled out such approaches and emphasised on the right of couples and individuals to set their own reproductive goals rather than the programme prescribing goals to couples(United Nations, 1994). The practice of assigning acceptor quotas to workers was also categorically rejected. The ICPD plan was labelled as 'paradigm shift'. However, the conference did not rule our national population goals as such. Thus, neo-Malthusian thinking was not rejected altogether but certain strategies were (for a review of the ICPD, see Finkle and McIntosh, 1994).

Following the ICPD, family planning became a part of the broader matter of reproductive health and the rights based approach was favoured by international organisations. Support to programmes that were considered as purely family planning programmes waned and national programmes were pressurised to drop coercive measures. Some of this had an impact. The Indian programme formally dropped contraceptive targets (Donaldson, 2002) though some targets continued informally or in other forms for some more time. Besides, countries that had achieved low fertility did not feel the need to persist with strong programmes. Some of these countries felt that the population growth rate and fertility had reached a level that could be considered 'satisfactory' and the neo-Malthusian programmes were withdrawn. This is not to imply that support for contraceptive services was stopped, but programmes to promote lowering of fertility were no longer supported by these countries. However, China continued with its programme even though fertility had fallen to below replacement level.

Demographic Situation in Asia: early 2010s

Fertility decline continued almost throughout Asia through the 1990s and the first decade of the twentieth century. One by one, a number of countries saw the TFR

falling below the popularly desired level of 2.1. By 2010-15, the TFR for Asia came down to 2.2, a fall of 0.8 since the early 1990s(Table 4). Mortality did fall further, but to a smaller extent than in the past, with the life expectancy rising by only 6 years over two decades. As a result, the NRR for Asia actually fell a shade below 1. In other words, Asian fertility was now low enough to be below replacement level even at a life expectancy of over 70 years. This was indeed a remarkable transition. The growth rate too declined reaching just about 1 percent per annum. The slowing down of fertility and of the growth rate was perceptible. During 2010-15, 35 countries of Asia, with 90 percent of population, had a TFR below 3 and 14 countries with about 44 percent of Asia's population had TFR below 2, clearly below replacement level. Iran, Vietnam, Malaysia, Brunei and some west Asian countries joined the low fertility group. Some of the large countries which had till then experienced only moderate fertility declines now went through a relatively rapid transition with the TFR falling well below 3. India, Bangladesh, and Nepal were prominent in this and joined Indonesia, Turkey, Sri Lanka and some smaller countries which had shown impressive declines even earlier. Thus, the TFR halved from a high of level of nearly 6 in the early 1950s, to about 3 by the early 1990s and is now approaching 2.1, which would be equivalent to replacement level in conditions of very low mortality. The growth rate has come down from well over 2 percent in the 1970s to just about 1 percent during 2010-15.

Clearly, for Asia as a whole, the demographic situation at present is that of low fertility and mortality. Of course, mortality is expected to fall further; the life expectancy, at 72, is not very high by today's standards and is bound to show improvement. But decline in mortality once it reaches a fairly low level is invariably slow. What about fertility? Many populations have already reached a low level of fertility, with the total fertility rate below 2. In the past, it was felt that the rate will reach a low replacement level and stabilise; this was often the goal of population programmes and many population projections were also based on this. But it has been seen that fertility has reached further low levels in most of Europe; some Asian populations have also been experiencing very low fertility and hence further decline in other countries is possible. Many other Asian populations are in the process of transition, and here fertility is expected to fall. Overall, further fertility declines are anticipated. Moreover, as the effect of momentum wears out, the growth rate is also bound to decline from the present rate of 1 percent. According to the medium variant of the latest U.N. projections (United Nations, 2015), Asia's

population is not expected to cross 6 billion in this century and will begin to decline slowly after 2060. Thus, while populations will grow over the current level, Asia no longer faces population explosion. The situation does not seem alarming.

At the level of theory, development has increasingly come to be viewed as neutral to the population factor. Lee's synthesis of Malthus and Boserup showed how the direction of the influence of population growth on economic growth can vary over time periods (Lee, 1986). Besides, since 2000, there has been awareness of demographic dividend being derived by countries that had gone though transition recently and this has attracted greater attention with Malthusian concerns being sidelined (Bloom et al. 2003).

Relevance of Neo-Malthusianism in present-day Asia

We now come to the question posed at the beginning. Neo-Malthusian programmes come into picture when rapid population growth is expected in the foreseeable future and it is felt that given the resource constraint the growth of population would be an impediment to development. But if the rate of population growth is low and is not likely to rise in the near future, any such programme becomes irrelevant. One could debate on how low should the growth rate be or should it actually be zero growth with achievement of the stationary state in the long run, as was the popular demand in many circles. A rate of growth below one percent does not appear threatening as this means doubling of population takes a long time, over 70 years. Besides, for populations with huge resources, a higher growth rate too would be acceptable. In fact, many countries, especially those in Europe and some rich countries in other parts of the world, would like the populations to grow faster as they feel that their economies can function better with more labour. In the old days the mercantilists too wanted populations to grow rapidly and in the recent days, as is well known, many developed countries have been making efforts to raise fertility by adopting pro-natalist schemes or strategies such as child support, long maternity leave, and tax incentives. Obviously, neo-Malthusian programmes are not considered relevant by these countries.

The growth rate in Asia is already about 1 percent and it is widely predicted that the rate will fall further, zero growth will be reached soon after the middle of the century, and then population will begin to decline albeit slowly. The Asian population is not expected to double from the present size. The fertility is at or just below replacement level and thus no intervention is warranted to lower it. Besides,

it is expected to decline on account of socioeconomic development and diffusion of the small family norm and contraceptive use even in the absence of further intervention. Thus, it appears that neo-Malthusian programmes have run their course in Asia and are no longer relevant.

But Asia is not a single entity as far as policies and programmes are concerned; the U.N. population Division lists 48 countries plus the Hong Cong and Macao SARs and other non-specified areas. There is huge diversity within the continent. This is seen in the level of development, nature of development, and demographic conditions. The aggregate indicators for Asia are dominated by China and India, which together account for 62 percent of Asia's population. But Asian countries do vary in demographic conditions. While some have completed the demographic transition long ago, some are at an early phase. Clearly what applies to one may not to another.

As noted above, if the population is at or near replacement level, the growth rate would be guite small or would be bound to fall to a low level in the near future, population momentum only delaying the inevitable decline in the growth rate. One could look at the NRR to see how close the population is to replacement level. But instead of the NRR, it is convenient to use the TFR, which is simpler to comprehend and at low mortality levels, the correspondence between these two indicators is high. A TFR below 2 certainly implies below replacement fertility. But TFRs in the range of 2 to 2.5 would not be far from replacement level given that mortality is not very low in many countries. On the other hand, TFRs above 3 clearly imply high growth even in conditions of moderate mortality. Therefore, the Asian countries are categorised into classes of fertility based on TFR for 2010-15 as: High (TFR above 4), Moderately High (TFR between 3 and 4), Moderate (TFR between 2.5 and 3), Moderately Low(TFR between 2 and 2.5), and Low (TFR below 2). Further, these are cross classified by the level of income (per capita GDP in 2010 in U.S. \$) as: High (over 10000 \$), Middle (5000-10000\$), Low-Middle (2000 to 5000\$), and Low (below 2000 \$). Some Asian countries have been severely affected by wars, external or civil, in the recent years and for these the population growth is not an important issue at the moment. These are shown in a separate category.

The cross-classification in Table 5 gives some idea about the relevance of neo-Malthusianism in the Asian countries. One can adopt the process of elimination. First, there are 14 countries with TFR less than 2 and clearly below replacement level. It has been generally observed that once fertility falls to such a low level, it rarely rises even with pro-natalist efforts. Thus, not much growth is expected for these populations in the future once the effect of momentum gets phased out. Unless the goal is to reduce population below the current level, there is no case for a programme to promote fertility regulation. It is pertinent to note here that China did promote below replacement fertility when the one child campaign was introduced in 1979 but this has been given up recently. Some of the countries in this low fertility group did not have neo-Malthusian programmes. Among these, Japan has long had relatively low fertility and has been promoting a higher fertility. Georgia and Armenia (parts of the erstwhile Soviet Union), Cyprus, Lebanon, and the oil rich countries of Brunei and UAE did not subscribe to neo-Malthusian policies but have reached low fertility. On the other hand, Singapore and Republic of Korea had strong family planning programmes but after the success in lowering fertility, have abandoned these. Given the level of development of these countries, continuing low fertility is only to be expected. Iran, Malaysia, and Thailand too have followed suit. China and Vietnam have persisted with their programmes. But there has been some moderation in China recently as the one-child strategy has been discontinued.

For countries with TFR between 2 and 2.5, fertility is at or close to replacement level. High population growth is no longer a concern in these countries though the rate of growth will be moderate for some time. Some of these countries, notably those which were once part of the Soviet Union and oil rich countries from West Asia did not have neo-Malthusian programmes. Now that fertility in these countries is not high, no need is felt for such programmes. Besides, the rich countries have been dependent on migrant labour and would like to raise the natural growth rate; neo-Malthusian policies are clearly not relevant for them anyway. Of course, contraceptive services are provided towards reproductive health and these continue. On the other hand, India, Indonesia, Bangladesh, and Nepal have had strong programmes for a long time. Given the fall in fertility to near replacement level, promotion of lowering fertility further is no longer needed. Though these countries have not abandoned their programmes, they have already moderated these. Indonesia did it some time ago. India too seems to have done so following the ICPD and international pressures. India's 2000 population policy gave prominence to addressing unmet need and ruled out coercion. The recent introduction of some measures that may appear pro-natalist, namely child care leave and extending the period of maternity leave, shows that the obsession with

neo-Malthusianism has ended. Though the Indian family planning (welfare) programme has continued, it does not attract as much attention in policy circles and in media as in the past. Conditions in Nepal and Bangladesh, which too have had programmes for quite some time and have reached fairly low fertility, are similar. Sri Lanka and Turkey have reached low fertility and propose to maintain the current level. In most of the countries in this group, family size desires have fallen substantially and the norm of a two child family has been well accepted. But there is some unmet need for family planning and contraceptive services need to be strengthened with wider choice and higher quality. No programmes to promote a small family, whether through media or personal campaigns, incentives or disincentives are seen to be required. Neo-Malthusianism has not been given up but has gradually been allowed to fade out.

Five countries have TFR in the range 2.5 to 3 and thus are not yet close to replacement level. Of these, the rich countries of Saudi Arabia and Oman desire population growth. Mongolia and Kazakhstan are sparsely populated and feeling no population pressures would like to raise or maintain the level of fertility. Neo-Malthusian programmes are not seen as relevant in these countries. Only Cambodia has a family planning programme; this was introduced rather late as the country was affected by disturbed conditions for a long time.

Asian countries with moderately high fertility, TFR in the range 3 to 4, Israel has long desired to raise the growth rate and the Syrian Arab Republic has been affected by wars. Tajikistan and Kyrgyzstan, formerly in the Soviet Union, did not have neo-Malthusian programmes but contraceptive services were available. The position of these countries on the population issue is not clear. On the other hand, Pakistan has had a programme functioning for a long time; this was introduced soon after India did, but has faced interruptions. Jordan, Philippines and Laos too have programmes and these continue.

Five Asian countries have high fertility now, with TFR over 4. Of these, Afghanistan, Iraq, Yemen, and Palestine have had civil strife or wars in the recent past and for these countries, the population factor will come into play only when peace is restored. In spite of high fertility, neo-Malthusian policies do not appear relevant in the present conditions. Timor-Leste suffered during the process of separation but conditions are settled by now yet the high fertility and the high growth rate, exceeding 3 percent (this is the only Asian country with such a high rate at present) does not seem to have received much attention.

Conclusions

We thus see that Asia has passed through a remarkable demographic transition in the past 60 years. Mortality has declined as has fertility but with a lag as is the case in a classical transition. Around the middle of the last century, when mortality decline had begun and further decline was expected but fertility was still at a high level, rapid population growth was imminent and Malthusian concerns emerged and gradually neo-Malthusian programmes were introduced. But over time, fertility declined throughout Asia though in varying degrees and over different time periods. As a result, after an initial rise, the population growth rate began to decline. In many countries, fertility has reached a low replacement level or even lower level than that. Whether credit for this goes to socioeconomic development, family planning programmes, or diffusion, or to be more precise, what are the relative contributions of various factors, is a matter of debate. But the small family has been well established in many countries. Regardless of whether this is attributed to the neo-Malthusian programmes or not, once a small family norm is accepted, fertility is not likely to rise even after the withdrawal of the programmes so long as contraceptive services remain easily accessible. For these countries, a neo-Malthusian programme is now clearly not relevant. The case of countries on the verge of replacement level fertility is quite similar. There too the small family norm seems to have been accepted and low fertility would be maintained in these countries as long as efficient means of regulation are available that is, contraceptive services with adequate choice are provided at no cost as most of the programmes have done. Thus, while the promotion component of the neo-Malthusian programmes has become irrelevant for these countries, the service component will have an important role to play. Contraceptive services have long been linked to the neo-Malthusian programmes as these have served as their instrument. But with the recognition of reproductive health as a need in itself, especially since the ICPD, contraceptive service has acquired an identity of its own, not merely as a component of neo-Malthusian programmes.

Some of the countries with moderate or high fertility being rich in resources and sparse populations seek to increase their populations. It is not clear what is the optimum size desired, but at present the feeling is of under-population and obviously, these counties have no interest in neo-Malthusian policies. But a few countries, notably Pakistan, Philippines, Jordan, Laos and Cambodia and the newly emerged Timor-Leste, continue to experience high growth and are yet to

move close to low fertility. The small family norm has not been well accepted in these. Added to these are countries which have disturbed conditions due to wars with neighbours or civil strife, some of which, once the internal situation is settled, may address the issue of population growth. They will have to take a call on whether growth is desirable, and if not, whether to adopt neo-Malthusian programmes.

Briefly, a large portion of Asia, in terms of population, has reached low fertility, has seen decline in the growth rate, and is well set towards very low, zero, or negative growth in the foreseeable future. These countries have nearly abandoned or moderated efforts to promote low fertility. Neo-Malthusian programmes are not relevant for them as long as contraceptive services are maintained. For some others, population growth has not been an issue in the recent past at all and neo-Malthusian programmes have no relevance for them. There are only a few countries, in which fertility is yet far from replacement level, to which the classical neo-Malthusian thinking may appear relevant. Neo-Malthusianism, once a favourite of international development organisations and national governments, and widely adopted in many Asian countries in the past few decades, appears to be gradually withdrawing from Asia. Will it migrate to Africa now? We could wait and see.

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Table 1: Demographic Situation in Asia, 1950-55

A. Total Fertility Rate			
TFR	No. of countries	Percent of Asia's population	
5.00 +	40	92.1	
4.00-4.99	4	0.9	
3.00-3.99	4	6.9	
2.00-2.99	0	0.0	
< 2.00	0	0.0	
Total	48	100	
Average	5.82		

B. Life Expectancy (both sexes)			
Life expectancy (years)	No. of countries	Percent of Asia's population	
< 40.00	12	33.7	
40.00-49.99	15	51.9	
50.00-59.99	14	7.7	
60.00-69.99	7	6.7	
70 +	0	0.0	
Total	48	100.0	
Average	42.1		

C: Rate of natural Increase			
RNI (% annual)	No. of countries	Percent of Asia's population	
3.00 +	7	2.5	
2.00-2.99	22	16.5	
1.00-1.99	18	80.3	
0.00-0.99	1	0.8	
< 0.00	0	0.0	
Total	48	100.0	
Average	1.91		

D: Net Reproduction Rate			
NRR	No. of countries	Percent of Asia's population	
2.50+	7	1.7	
2.00-2.49	16	46.9	
1.50-1.99	21	44.4	
1.00-1.49	4	6.9	
< 1.00	0	0.0	
Total	48	100.0	
Average	1.83		

Source: Obtained from United Nations (2013a).

Table 2: Demographic Situation in Asia, 1970-75

A. Total Fertility Rate			
TFR	No. of countries	Percent of Asia's population	
5.00 +	33	51.1	
4.00-4.99	8	41.9	
3.00-3.99	3	1.7	
2.00-2.99	4	5.2	
< 2.00	0	0.0	
Total	48	100	
Average	5.06		

B. Life Expectancy (both sexes)			
Life expectancy (years)	No. of countries	Percent of Asia's population	
< 40.00	4	0.9	
40.00-49.99	6	30.2	
50.00-59.99	12	15.5	
60.00-69.99	22	48.1	
70 +	4	5.4	
Total	48	100.0	
Average	56.4		

C: Rate of natural Increase			
RNI(% annual)	No. of countries	Percent of Asia's population	
3.00 +	10	1.5	
2.00-2.99	28	91.5	
1.00-1.99	9	6.7	
0.00-0.99	1	0.2	
< 0.00	0	0.0	
Total	48	100.0	
Average	2.30		

D: Net Reproduction Rate			
NRR	No. of countries	Percent of Asia's population	
2.50+	16	5.3	
2.00-2.49	15	57.5	
1.50-1.99	11	31.2	
1.00-1.49	6	6.0	
< 1.00	0	0.0	
Total	48	100.0	
Average	1.97		

Source: Obtained from United Nations (2013a).

Table 3: Demographic Situation in Asia, 1990-95

A. Total Fertility Rate			
TFR	No. of countries	Percent of Asia's population	
5.00 +	13	5.9	
4.00-4.99	6	6.5	
3.00-3.99	12	33.9	
2.00-2.99	13	45.9	
< 2.00	4	7.8	
Total	48	100	
Average	2.96		

B. Life Expectancy (both sexes)			
Life expectancy (years)	No. of countries	Percent of Asia's population	
< 40.00	0	0.0	
40.00-49.99	0	0.0	
50.00-59.99	9	30.3	
60.00-69.99	20	56.9	
70 +	19	12.8	
Total	48	100.0	
Average	65.1		

C: Rate of natural Increase			
RNI (% annual)	No. of countries	Percent of Asia's population	
3.00 +	5	1.4	
2.00-2.99	22	16.3	
1.00-1.99	19	78.2	
0.00-0.99	2	4.2	
< 0.00	0	0.0	
Total	48	100.0	
Average	1.68		

D: Net Reproduction Rate			
NRR	No. of countries	Percent of Asia's population	
2.50+	6	1.9	
2.00-2.49	8	4.5	
1.50-1.99	14	36.3	
1.00-1.49	14	13.2	
< 1.00	6	44.1	
Total	48	100.0	
Average	1.26		

Source: Obtained from United Nations (2013a).

Table 4: Demographic Situation in Asia, 2010-15

A. Total Fertility Rate			
TFR	No. of countries	Percent of Asia's population	
5.00 +	2	0.7	
4.00-4.99	3	1.4	
3.00-3.99	8	7.6	
2.00-2.99	21	46.4	
< 2.00	14	43.9	
Total	51	100	
Average	2.20		

B. Life Expectancy (both sexes)			
Life expectancy (years)	No. of countries	Percent of Asia's population	
< 40.00	0	0.0	
40.00-49.99	0	0.0	
50.00-59.99	1	0.7	
60.00-69.99	19	47.9	
70 +	28	51.5	
Total	48	100.0	
Average	71.6		

C: Rate of natural Increase			
RNI (% annual)	No. of countries	Percent of Asia's population	
3.00 +	1	0.0	
2.00-2.99	9	6.8	
1.00-1.99	27	52.9	
0.00-0.99	10	37.3	
< 0.00	1	3.1	
Total	48	100.0	
Average	1.07		

D: Net Reproduction Rate			
NRR	No. of countries	Percent of Asia's population	
2.50+	1	0.0	
2.00-2.49	3	1.5	
1.50-1.99	4	5.0	
1.00-1.49	23	47.2	
< 1.00	17	46.3	
Total	48	100.0	
Average	0.97		

Source: Obtained from United Nations (2015).

Table 5: Asian Countries by Total Fertility Rate and Income Level

Income level (in 2010) or conditions around 2010					
TFR (2010-15)	Low	Low-Middle	Middle	High	War affected
≥4		Timor-Leste			Afghanistan, Iraq, Yemen, Palestine
3.00-3.99	Pakistan, Tajikistan, Kyrgyzstan, Lao Rep	Jordan, Philippines			Israel, Syrian AR
2.50-2.99	Cambodia	Mongolia	Kazakhstan	Oman, S. Arabia	
2.00-2.49	Uzbekistan, India, Nepal, Bangladesh, Bhutan, Myanmar, DPR Korea	Indonesia, Turkmenistan, Sri Lanka	Azerbaijan, Maldives, Turkey	Kuwait, Bahrain, Qatar	
< 2	Vietnam	Georgia, Armenia, China, Thailand	Malaysia, Iran, Lebanon	Cyprus, Brunei, UAE, Singapore, Ro Korea, Japan	

Note: Income based on per capita GDP, 2010: Low: < 2000 \$,

Low-Middle: 2000- < 5000 \$, Middle: 5000- < 10000 \$, High: 10000 \$ or more.

Sources: Per capita GDP: World Development Report (World Bank, 2015).

TFR (Total Fertility Rate): United Nations (2015).

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The Institute conducts research using its own resources, and through external funding. The externally funded projects are usually initiated at the request of the concerned agencies. These are generally large-scale surveys, requiring primary data collection. It is worth mentioning the technical support given by ORC Macro International (formarly ORC Macro) at all the four rounds of the National Family Health Surveys (NFHS) and that of the East-West Centre, Honolulu, USA in the first round. Another major project undertaken by the institute is the District Level Household and Facility Survey (DLHS – RCH), conducted since 1998 at the behest of Ministry of Health and Family Welfare with World Bank funding.

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Professor Purushottam M. Kulkarni retired from the Centre for the Study of Regional Development (CSRD), Jawaharlal Nehru University (JNU), New Delhi, in 2015 as Professor of Population Studies. He has been actively engaged in research in the areas of Population and Health for over four decades and his contributions cover fertility, family planning, technical demography, population policy, sex ratio at birth, and social disparities.

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