JOURNAL OF POPULATION AND SOCIAL STUDIES Volume 4 Numbers 1-2 July 1992 - January 1993

# The Effect of Population Programmes Upon Quality of Life and Sustainable Development

*Nicholas Ford**

## Introduction

In seeking to address the very broad remit of this discussion topic, it is necessary to dissect it into a series of underlying components. In this discussion the term population programmes pertains to fertility, - rather than migration - or mortality, - related programmes which are outside the scope of this short paper. These components essentially comprise reviews of the main lines of thinking on the following topics: global and regional trends in population growth; the links between rapid population growth and development; the key factors influencing fertility decline; the concepts of quality of life and sustainable development and the ways in which population programmes may be considered to have an impact upon them. The paper refers to some key references in these overlapping literatures, but of course is in no way exhaustive, nor comprehensive. Given that this paper was originally developed for a Round Table meeting convened in Bangkok, a number of the supporting references cited pertain to Thailand.

## Global and Regional Trends in Population Growth

In global terms the major trend has been a decline in the rate of population growth from a peak of 2.1 per cent per annum in 1965-70 to approximately 1.7 per cent in 1992 (World Bank, 1992). There continues to be still more persons (over 90 millions per annum) being added in total to the population than ever before in human history. Whilst the distinction between low (or no) population growth in 'developed' countries and high population in 'less developed' countries continues, a major feature of the past four decades has been the wide divergence of the demographic trajectories of the 'less developed' countries. Whilst the detailed pattern is complex, in general terms there has been rapid fertility decline in East Asia, moderate decline in parts of Latin America and to a lesser degree South Asia and very limited decline in Sub-Saharan Africa.

* Institute of Population Studies, University of Exeter, Hoopern House, 101 Pennsylvania Road, Exeter, United Kingdom EX4 6DT

However, there have been recent encouraging indications that a number of African countries are moving towards fertility decline (Freedman and Blanc, 1992). Even those countries which have recently undergone rapid fertility decline continue to grow due to population momentum. Although there is always the possibility of stalling in the process of fertility decline, the main question is not whether, but when and at what total, global population will stabilize. The most authoritative estimates point towards global population rising from 5.5 billions in 1993, to 6.5 billions by 2010 possibly stabilizing at 10.1 billions by the middle of the twenty second century (World Bank, 1992) even if population growth follows the rapid fertility decline scenario. Population projections beyond the near future need to be taken into consideration with especial caution.

## The Links between Rapid Growth and Economic Development

It is convenient to view the main lines of thinking about the links between population growth and economic development in terms of the three broad perspectives of, 'Transition theory', 'Orthodoxy' (sometimes termed 'Neo-Mathusianism') and 'Revisionism' (Demeny, 1986; Hodgrson, 1988; Blanchet, 1991). Transition theory (Notestein, 1945) provided the first comprehensive explanation of fertility change, which viewed transition from high to low birth and death rates, as being achieved through industrialization removing the social and structural 'props' which supported high fertility. This view and its policy implications were expressed by some countries at the 1974 World Population Conference (Bucharest) in terms of the slogan that 'development is the best contraceptive'. Neo-Malthusianism, which arose in recognition of the dramatic acceleration in population growth following rapid declines in mortality rates in developing countries, questioned transition theory postulated outcome on the grounds that rapid population growth could itself impede economic development by exacerbating social and economic problems (Coale, 1986). Transition theory was further undermined by the empirical findings that fertility decline could often take place prior to appreciable economic development, partly in response to a range of social and communicational forces (Freedman, 1979). By the time of the 1984 World Population Conference (Mexico City) an emphasis upon taking positive steps to reduce population growth, (largely through the promotion of family planning programmes) had become the consensus view among both international agencies and the governments of many less-developed countries. The general consensus view articulated the need for population policies in integration with other development strategies.

At the Mexico Conference the main dissenting view was that of the U.S. administration which expressed the 'Revisionist' argument that population growth is a neutral, or even beneficial, phenomenon with respect to economic development. The 'Revisionist' view, which reflected the work of Boserup (1981) and Simon (1977), argued for instance, that economic growth could be stimulated by the search for innovation to increase production in the face of population pressure. 'Revisionism', like 'Transition Theory' drew upon the examples of industrialisation taking place in the 'Western' countries within an historical era of population growth. Neo-Malthusians countered that although simultaneous population and economic growth occurred within these settings, the pace of such population growth was significantly slower than is found in many less-developed countries in the post-World War II era (McNicoll, 1984).

In terms of international support for population policies it is important to note that the U.S. governments' 'Revisionist' view during the Reagan era will probably be seen as a very temporary shift of policy after which, today under President Clinton there is once again a return to the more orthodox broadly Neo-Malthusian view. Nevertheless, it is also important to note that the Neo-Malthusian position is not generally expressed today in such extreme terms as was sometimes the case in earlier decades.

The main components of the Neo-Malthusian perspective revolve around concerns that rapid population growth has an adverse effect on economic development by inhibiting savings, investment in human capital and provision of full employment, and is related to urban congestion and rural environmental despoilation (McNicoll, 1984, Preston and Donaldson, 1986). Of these factors, the assistance programmes can give in the long-run to investment in human capital (and thus enhancing the quality of the labour force), is probably the most significant for development. This factor interrelates with the micro-economic benefits accruing from the shift towards small family sizes, pertaining to parental investment in (the quality of) children. Furthermore, the effects of rapid population growth are cumulative due to age structures and population momentum (World Bank, 1984). However, population growth in not viewed as for instance the cause of poverty, rather it is seen as one (important) factor interacting with other dimensions. The view has been well summarised by Preston who concluded that family planning programmes "cannot make a poor country rich, but they help make it less poor" (1986, 95). For instance, few would dispute the importance of sound economic policies and a socio-political climate of stability and

security for advances in development. Furthermore, the problems of urban congestion are recognised as being more closely related to migrational than fertility-related aspects of population (World Bank, 1992). Concentration and the spatial patterns of development comprise an important aspect of the context within which rapid population growth impacts upon development.

Concern has been expressed that the rapid fertility decline in countries such as Thailand may itself lead to deleterious social and developmental effects (Pardthaisong, 1988). Recent social research suggests that the lower fertility does not have an overriding effect on familial support of the elderly (Knodel, Chayovan and Siriboon, 1992). Furthermore, as noted above, the effects of fertility change upon settlement patterns requires careful consideration of migration and development process.

## Key Factors Influencing Fertility Decline

The importance accorded to the need to reduce the rate of population growth stimulated enormous and continuing research efforts to assess the determinants of fertility decline. A broad consensus has emerged on the international scene which calls for the focusing simultaneously upon increasing educational and employment opportunities (especially for women), improving health conditions and strengthening family planning programmes (Cutwright, 1983; World Bank, 1984). Some reviews have identified family planning programmes as the most important and cost-effective single factor for attaining fertility decline (Bulutao, 1984). Numerous studies have further sought to assess the factors which have facilitated and inhibited family planning programmes' achievement of demographic objectives, by exploring their functioning in specific contexts. Such analysis have stressed the interacting importance of programme-related (e.g. government support, effective implementation) (Lapham and Maudlin, 1984) and cultural (e.g. communication, women's status, ideational) factors (Freedman, 1979; Cleland, 1985; Knodel, Chamratrithirong and Debavalya, 1987).

Some governments (most notably, China) have sought to strengthen the effectiveness of population policies by a range of 'beyond family planning' measures. There is an international consensus which is generally critical of such strategies especially where they involve coercion.

Part of the rationale for further expansion of family planning programmes derives from the so-called 'KAP-gap' assessment of unmet need which refers to the discrepancy between current practice of contraception and levels of reproductive intentions. Recent careful analysis has estimated that globally over 100 million couples have an unmet need for contraception (Bongaarts, 1991).

Whilst (as noted above) the need to reduce rapid rates of population growth is still widely recognised, it is probably not generally given quite the primacy and urgency which it was accorded in the earlier era of the perceived 'population explosion' (Ehrlich and Ehrlich, 1990). This change of emphasis is probably related to the growing concern with women's status and human rights issues with respect to family planning programmes. This combination of factors has given rise to increased emphasis being given to maternal and child health (MCH) and human rights rationales for family planning programmes, in many cases over and above the earlier demographic-economic development rationale. Insofar as all of these rationales stress the value and importance of family planning programmes there is no real conflict of interest. This shifting emphasis is also linked to the growing emphasis upon 'quality of care' (Bruce, 1990) and gender concerns (Dixon-Mueller, 1993) in programme development and implementation.

## Population Programmes and 'Quality of Life'

Concepts such as 'quality of life' and the UNDP's Human Development Index (HDI) (United Nations Development Programme, 1992) have sought to go beyond economic activities and income measures to assess human development. HDI for instance combines life expectancy, educational attainment and income indicators to give a composite measure of human development. 'Quality of life' is a more nebulous concept variously defined to also incorporate elements such as personal security, human rights and environmental amenity and quality.

One of the difficulties in assessing the effect of population policies and programmes upon general quality of life is that given population momentum such policies have a long lead-time. Furthermore, as noted above, their effect is not so much directly positive e.g. economic improvement, but rather in reducing the scale of various developmental problems. A study concerning the economic and social impact of declining fertility in Thailand has concluded for instance that the demographic effect has

been to assist the country in coping with economic development (Hongladarom et.al., 1987). One of the major components of development comprises investment in human capital, in this regard a stabilization of the size of the new cohorts needing education has an obvious significance to many governments which are struggling to balance budgets and provide adequate schooling (McNicoll, 1984).

Other more direct benefits of population policies on quality of life relate to the human rights and MCH rationales for family planning programmes. Firstly, freedom to regulate one's own fertility through access to family planning information, education and communication (IEC) and services is a basic human right, which is generally closely linked to efforts to improve and enhance women's status. Secondly, there is a substantial literature which has established the MCH benefits accruing from the practice of family planning in conjunction with pregnancy and delivery care (Rinehart and Kols, 1984, Bongaarts, 1987, Fortney, 1987, Winikoff and Sullivan, 1987). The key point here is that there is at least potentially a complementary convergence in the demographic, MCH and human rights rationales for family planning programmes which interrelate with other major strands of development policy. In practice the degree to which family planning programmes actually enhance progress towards this range of potentially converging rationales, depends upon the particular policy objectives they are given and the ways in which they are actually implemented.

## Population Programmes and Sustainable Development

The relationship of population to the environment and natural resources has been variously conceptualised as being mediated by technology, consumption and land-use (Ehrlich and Ehrlich, 1990; Pearce and Warford, 1993). As with the theorising concerning population growth and economic development, the closely linked debate concerning population growth and the environment (at least in its early formulation) can be structured with reference to Neo-Malthusian concerns with limits to growth against the endless growth perspectives of the 'technological optimists' (Ford, 1982; Jones, 1990). In recent history there have been essentially two environmental revolutions (in the sense of the ways in which such issues are perceived), the first in the 1960s/70s which viewed environment quality in intrinsic opposition to economic growth, and the second, in the 1980s/90s with an emphasis upon 'sustainable development' (Pearce and Warford, 1993). 'Sustainable development' is generally defined as the principle that current generations should meet their needs without

compromising the ability of future generations to meet their own needs (World Commission on Environment and Development, 1987). The modern environmental debate involves an increasing concern with the internationalization of the problems - in terms of a shared global environment and the disparity in consumption and impact between the rich and poor (Pearce and Warford, 1993).

Environmental problems may be broadly divided into the global concerns of finite resources depletion, pollution and the 'Greenhouse effect' of global warming, and the more localized and regional concerns pertaining to the erosion of ecologically marginal lands and destruction of renewable resource bases. The more global problems are chiefly linked to the functioning of the industrial-technological economies, and it is the more local and regional problems which have been related to population growth and programmes in developing countries.

Whilst the first environmental revolution was primarily concerned with the industrial world, the second environmental revolution has given increasing emphasis to the developmental economics of the less developed countries. Rapid population growth is implicated in environmental destruction by creating population pressure forcing more and more people to exploit the fragile ecosystems of marginal lands (Green, 1992). For instance, a study was conducted in Burkina Faso to assess the total amount of biomass lost each year in the form of fuel, wood and vegetation by the combined interactions of manmade and climatic factors. The study estimated a loss equivalent to 9 per cent of Burkina Faso's G.N.P. per annum Such environmental deterioration not only threatens such countries ecological and economic sustainability, but can also make it particularly difficult for development to take place (Pearce and Warford, 1993). The most critical factor pertaining to the impact of rapid population growth upon the sustainability of development probably pertains to water availability. Many of the marginal lands (particularly in parts of Africa and South-West Asia), into which agrarian populations are expanding, already face water shortages (La Riviere, 1989, Green 1992). These problems are likely to be particularly acute in areas where the aquifer-based sources of water begin to become exhausted. Where such resources are shared by different states, regional political conflict may demand international management.

Whilst policies and programmes to reduce population growth clearly have a contribution to make in reducing environmental pressures, the crucial mediating factor is the nature and pattern of development. Development programmes which integrate

family planning with sustainable development in practical strategies have clear relevance.

One effect of the internationalization of environmental concerns has been to highlight the differences in environmental priorities between rich and poor countries. For instance, at the 'Earth Summit' in Rio (certain) rich countries' emphasis on controlling industrial pollution and halting (tropical) deforestation conflicted with poor countries' concern for basic necessities and development (Lascelles, 1992).

Over the past three decades bodies of environmental legislation, for instance, regarding pollution standards, have been established in most industrial countries. During the 1970-88 period there has been a decline in energy requirements per Unit of Gross Domestic Product in OECD countries providing some limited indication that industrial development may be harmonized with environmental imperatives (Pearce and Warford, 1993). These changes have chiefly taken place in response to changing market costs, although it should also be noted that this period has also been one in which there has been restructuring in the global economy, with certain heavy, polluting industries growing more rapidly in poorer, than richer, countries (Dicken, 1986; UN, 1990). Given the pace of industrialization in the newly-industrialized countries (NICs), future environmental protection will be dependent upon, how far the regulatory measures already taken by some Western countries can provide sufficient protection, and whether the NICs will also adopt and implement such measures. These questions go beyond a review of the effect of population programmes. Contemporary policies and programmes seeking to reduce fertility link to these global environmental issues with respect to their impact upon the time it will take for the global population to stabilize and the size of that eventual population. That future total population will have implications for environmental carrying capacity, as mediated by technology and economy. It is important to stress however, that national and regional patterns of population and development will be of greater practical significance than global aggregates.

Returning to the international debate concerning the environment, the concept of 'sustainable development', with its acknowledgement of the complementarity of development and environment, is today more a rhetorical compromise expressing 'good intentions', than an operational strategy to harmonize human development and global ecosystems.

## Conclusion

Throughout this short discussion it has been emphasized that population programmes comprise an important component of efforts to improve quality of life and provide a basis for the possibility of sustainable development. It is in their interaction with other social, political and economic factors that population policies can contribute positively to development. It has also been emphasized that the main tools of population policies - family planning programmes - are today fostered from an MCH and human rights, as much as a demographic rationale. There is also a major convergence of rationale for family planning programmes with policies to enhance womens' status in overall development strategies. The degree to which this powerful convergence of rationales is achieving its different objectives depends very much upon the precise ways in which family planning programmes are implemented in specific national settings.

The concept of transitions is basic to attempts to understand the processes of population change, development and environmental impact (Brechin, Ness and Drake, 1991). Concerns with quality of life and sustainable development may be viewed as reflecting different time frames. Concern with promoting quality of life essentially revolves around the alleviation of suffering and expansion of life opportunities in the present and short-term, whilst concern with sustainable development (although noting current environmental despoilation) is focused more upon the long-term. International debate, policy formulation and agreement is probably much further away from realistic strategies to achieve (long-term) sustainable, than (short-term) economic, development.

## Acknowledgements

The author would like to thank John Cleland and John Simons for feedback in developing this paper, although the views expressed and any errors are of course those of the author.

## References

Blanchet, D. 1991. 'On Interpreting the Observed Relationships Between Population Growth and Economic Growth: A Graphical Exposition', *Population and Development Review*, 17(1), pp.103-114.

Bongaarts, J. 1987. 'Does Family Planning Reduce Infant Mortality Rates?' *Population and Development Review*, 17(2), pp.323-334.

Bongaarts, J. 1991. 'The KAP-Gap and Unmet Need for Contraception'. *Population and Development Review*, 17(2), pp.293-313.

Boserup, E. 1981. *Population and Technological Change: A Study of Long-Term Trends*, Chicago, University of Chicago Press.

Brechin, S.R., Ness, G. and Drake, W. 1991. 'Integration of Population, Environment and Development Policies' (ESCAP) *Population Research Leads*, No.37.

Bruce, J. 1990. 'Fundamental Elements of the Quality of Care: A Simple Framework', *Studies in Family Planning*, 21(2), pp.61-91.

Bulatao, R.A. 1984. 'Reducing Fertility in Developing Countries: A Review of Determinants and Policy Levers', *World Bank Staff Working Papers*, No.680.

Cleland, J. 1985. 'Marital Fertility Decline in Developing Countries', pp.223-52. In: Cleland, J. and Hobcraft, J. (eds.) *Reproductive Change in Developing Countries*. Oxford: Oxford University Press.

Coale, A. 1986. 'Population Trends and Economic Development', pp.96-104. In: J. Menken (ed.). *World Population and U.S. Policy*. London: Norton.

Cutwright, P. 1983. 'The Ingredients of Recent Fertility Decline in Developing Countries', *International Family Planning Perspectives*, 9(4), pp.101-109.

Demeny, P. 1986. 'Population and the Invisible Hand', *Demography*, 14(3), pp.473-488.

Dixon-Mueller, R. 1993. 'The Sexuality Connection in Reproductive Health', *Studies in Family Planning*, 24(5) pp.269-282.

Dicken, P. 1986. *Global Shift: Industrial Change in a Turbulent World*. London: Paul Chapman.

Ehrlich, P.R. and Ehrlich, A.H. 1990. *The Population Exkplosion*. London: Hutchinson.

Ford, N.J. 1982. *Consciousness and Lifestyle: Alternative Developments in Culture and Economy of Rural Dyfed*, Unpublished PhD Thesis, University College of Wales, Aberystwyth.

Fortney, J.A. 1987. 'The Importance of Family Planning in Reducing Maternal Mortality'. *Studies in Family Planning*, 18(2), pp.109-114.

Freedman, R. 1979. 'Theories of Fertility Decline in Developing Countries: A Re-Appraisal', pp.63-79. In: P.M. Hauser (ed.) *World Population and Development*, Syracuse: Syracuse University Press.

Freedman, R. and Blanc, A.K. 1992. 'Fertility Transition: An Update', *International Family Planning Perspectives*, 18(2), pp.42-50.

Green, C.P. 1992. 'The Environment and Population Growth: Decade for Action', *Population Reports*, Series M, No.10.

Hodgeson, D. 1988. 'Orthodoxy and Revisionism in American Demography', *Population and Development Review*, 14(4), pp.541-569.

Hongladarom, C., Prasith-rathsint, S. and Robinson, W.C. 1987. 'The Economic and Social Impact of Declining Fertility: A case Study of Thailand', *Asia-Pacific Population Journal*, 2(2), pp.3-22.

Knodel, J., Chamratrithirong, A. and Debavalya, N. 1987. *Thailand's Reproductive Revolution*. London: University of Wisconsin Press.

Knodel, J., Chayovan, N. and Siriboon, S. 1992. 'The Impact of Fertility Decline on Familial Support for the Elderly: An Illustration from Thailand', *Population and Development Review*, 18(3), pp.79- 103.

Jones, H.R. 1990. *Population Geography*. London: Paul Chapman.

Lapham, R.J. and Maudlin, W.P. 1984. 'Family Planning Effort and Birthrate Decline in Development Countries'. *International Family Planning Perspectives* , 10(4), pp.109-118.

La Riviere, J.W.M. 1989. 'Threats to the World's Water'. *Scientific American*, 261(3), pp.80-107.

Lascelles. 1992. 'Conflicts and Dilemmas', pp.42-45. In: U.N. Conference on Environment and Development. *Earth Summit'92*. London: the Regency Press.

McNicoll, G. 1984. 'Consequences of Rapid Population Growth: An Overview and Assessment', *Population and Development Review*, 10(2), pp.177-240.

Notestein, F. 1945. 'Population: The Long View' in T. Shultz (ed.) *Food for the World*. Chicago: University of Chicago Press.

Pardthaisong, T. 1998. 'Fertility Decline in Thailand: The Chiang Mai Experience', Paper delivered at IUSSP seminar on Fertility Transition in Asia, Bangkok.

Pearce, D.W. and Warford, J.J. 1993. *World Without End: Economics, Environment and Sustainable Development*. Oxford: Oxford University Press.

Preston, S.H. 1986. 'Are the Economic Consequences of Population Growth a Sound Basis for Population Policy?' pp.67-95. In: J. Menken (ed.) *World Population and U.S. Policy*. London: Norton.

Preston, S.H. and Donaldson, P. 1986. 'Population Growth and Economic Development', *Asia-Pacific Population Journal*, 1(2), pp.3-12.

Rinehart, W. and Kols, A. 1987. 'Healthier Mothers and Children Through Family Planning', *Population Reports*, Series J, No.27.

Simon, J. 1977. *The Economics of Population Growth*, Princetown, Princetown University Press.

United Nations 1990. *World Population Monitoring 1989: The Population Situation in the Least Developed Countries.* New York: UN.

United National Development Programme. 1992. *Human Development Report.* Oxford: Oxford University Press.

Winikoff, B. and Sullivan, M. 1987. 'Assessing the Role of Family Planning in Reducing Maternal Mortality', *Studies in Family Planning*, 18(3), pp.128-143.

World Bank. 1984. *World Development Report 1984.* Oxford: Oxford University Press.

World Bank. 1992. *World Development Report 1992: Development and the Environment.* Oxford: Oxford University Press.

World Commission on Environment and Development 1987. *Our Common Future*. New York, Oxford University Press.