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# An Assessment Of Fertility Transition In Nepal

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## INTRODUCTION

Demographic analysis plays a central role in any population research, properly carried out it provides illuminating insight into changes in population structure and behaviour, pinpointing causal relationship and refining interpretation. In traditional societies, fertility and mortality are high, but in modern societies, fertility and mortality are low, in between there is the demographic transition.

Here an attempt has been made to identify the fertility transition underway in Nepal. The first comprises the concept of fertility transition and after that consists of descriptive statistical analysis of fertility transition in Nepal briefly.

## FERTILITY TRANSITION : A REVIEW

The sequence of events in classic formulations of demographic transition theory is revealed in Figure 1 (Annex). In traditional societies, both mortality and fertility rates are high and in balance. The fluctuation of mortality reflects the ravages of periodic famine, diseases and war: Malthu's famous "positive" checks on population growth (1798). Mortality declines first followed after a lag by fertility. Eventually, equilibrium is restored. Population growth accelerates at point **a**, the start of mortality decline and growth continues for a further 30-40 years beyond point **b** when fertility and mortality are again in balance. This extension of population growth beyond the achievement of low fertility is called population momentum and reflects the crucial role of age structure in determining the annual numbers of births and deaths and growth rate (Cleland 1993).

Most demographers, present a typology of population as an introduction to a review of the prospects for world population growth. Countries in which fertility was low and declining and the rate of population growth was falling, where the existing trends implied the cessation of growth and perhaps the beginning of population decline, were

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grouped into Western, Central and South Europe and overseas areas populated by immigration from these areas, were characterised in group A. Group B consists of those countries in which fertility and mortality declines were well established, but because mortality decline precedes fertility decline there is a large natural increase and rapid population growth. Population of Eastern Europe were described as well advanced in this group while the Soviet Union and Japan and certain other countries were beginning to enter into this group. Group C were areas of high growth potential including more than half the world that had not began the fertility transition. There are areas in which death and especially birth rates remained at or close to pre-modern level.

This paper basically attributes fertility decline to changes in social life that accompany and are presumed to be caused by industrialisation and urbanisation. As a consequence the cost of child-rearing grew and the possibilities for economic contributions increased due to children birth decline. Falling death rates, though increase the size of the family to be supported but lowers the inducement to have many births. Moreover, women avail themselves free from household obligations and bear new economic roles which is less compatible with childbearing.

As noted by Coale (1973) in his article the problem of determining a well-defined threshold may be that there is more than one precondition for declining marital fertility, which can be stated as:

_ Fertility must be within the calculus of conscious choice.
_ Reduced fertility must be advantageous.
_ Effective techniques of fertility reduction must be available.

Demographers have used classic transition theory. Central assumption of transition theory is that the decline in fertility can not occur unless mortality has already regressed, extensively (Annex Figure 1) . In Europe the transition has occurred under striking diverse socio-economic conditions. A high level of socio-economic development was often indeed accompanied by fertility transition but is not a precondition. As demonstrated in less developing contries the introduction of an effective family planning programme may contribute to fertility decline even under primitive levels of modernisation. There is an important dimension of innovation/diffusion to the transition that swept over most of Europe in a relatively short time. This has been a widely accepted modification of transition theory, which has taught that : fertility declines took place under a wide variety of social, economic and demographic conditions; the

practice of family limitation was largely absent and probably unknown among broad segments of the population prior to the decline in fertility even though a substantial proportion of the births may have been unwanted; increase in the practice of family planning and declining of marital fertility were essential irreversible process once under way; cultural settings influence the onset and spread of fertility decline independently of socio-economic conditions.

In both Europe (Coale 1973, Van de Walle 1986) and developing countries correlation between level of urbanisation or industrialisation and the decade in which nations or provinces first experiences a fertility decline is weak.

Several countries in Asia like Banglades and in Latin America like Haiti that are currently undergoing the fertility transition are agrarian and underdeveloped, an apparent contradiction to the idea that it is development and modernisation that bring about fertility declines.

Many writers in the early 1980s and 1990s have elaborated classic transition theory by adding to economic modernisation a shift in values towards individualism and self-fulfilment that occurs with rising affluence and secularisation. This addition to transition theory fits the data from Europe quite well, but fits several developing countries much less well, for example, Bangladesh, where a fertlity transition is clearly in progress despite little apparent change in traditional values.

An interesting restatement of transition theory has been to integrate economic, cultural and institutional theories of fertility decline, Wealth Flows Theory. At the heart of the theory is the idea that nucleation makes children rather than parents the net economic beneficiaries of family life, a process that is called reversal of intra-familial wealth flows.

The neo-classical micro-economic theory of fertility emphasises the proximate determination of couple's fertility choices. These proximate determinations are the relative prices of children versus other goods, the couple's income, and their performance for children versus competing forms of consumption. In adition to the problems in the theory's internal logic, micro-economic theory of fertility decline can be faulted for adding little to classical demographic transition theory when it comes to insights into the institutional conditions conducive to fertility transitions.

Improvement to the microeconomic fertility model by attributing and adding to it is a "sociological" variable, the supply of children. This framework explains fertility in terms of three proximate determinants: the

supply of children, i.e. the number of children that parents would bear in the absence of deliberate fertility limitation; the demand for children, or the number of surviving children they would like to have; and the the costs of fertility regulation, where "costs" refers to psychic and social as well as monetary costs. This framework has been useful for organising thinking about fertility decline, however, it has misled us as well.

The theory of fertility decline as reviewed is called ideational theory enunciated by Cleland (1993). This theory attributes the timing of fertility transition to the diffusion of information and new social norms about birth control. They recognise that Africa poses a difficult case for a pure diffusion theory.

Although there are many theories of fertility transition that have been offered to the field, each containing important ideas, none provides a complete explanation for all known fertility decline (Mason 1997)

It is important to recognise that no single cause can explain all fertility declines, few events or conditions are likely to be either necessary or sufficient for a fertility decline (Mason 1997). A combination of improved health, rising educational levels for both sexes, and a strong family planning programme, as in Thailand and China, may be sufficient to initiate a fertility transition even though any one of these changes alone would not be sufficient (Freedman 1979).

**CASE OF NEPAL**

Nepal with an area of 147, 181 sq. km. extends between longitudes 80° 4' East and latitudes 26°22' and 30°27' North. The country stretches over a length of 885 kilometres from east to west and an average width of 193 kilometres form north to south. The kingdom is the largest Himalayan state in the world. Nepal is a land-locked country and sandwiched between two giant countries: China in the North and India in the south. Geographically, Nepal marks a transitional mountain area between the fertile Gangetic plain and the arid Tibetan plateau. Politically, the country is a monarchical state wedged between Republic India and Communist China.

The country is divided administratively into 5 development regions and 75 districts. Village Development Committee (VDC) /Municipality is the loswest local level administrative unit in each district. Number of VDCs and municipalities in the country account to 3095 and 57 respectively. Ecologically it is divided into three ecological zones: mountain, hill, tarai.

Population of country increased from 15022839 in 1981 to 18491097 in 1991 with annual growth rate of 2.1 percent. In 1991, 7.8 percent, 45.5 percent, and 46.7 of the total population were found in the mountain, hill, and tarai respectively. Urban had 9.2 percent of the total population in 1991.

**The Onset Of Fertility Decline In Nepal**

Population momentum can be reduced by investments to increase educational opportunities, to expand reproductive health and family planning information and services, and to reduce maternal and child mortality. In many developint countries, high fertility is associated with the mode of production and cultural and religious factors. The level of income, education and child survival also play major roles in the reduction of fertility. Much of the literatures dealing with economic, social and demographic characteristics of Nepali society explain that fertility is high in Nepal, because there is a high demand for children for economic reasons as well as for social and cultural reasons. They implicate low income, mass illiteracy particularly for women, and minimal knowledge and use of family planning methods in the country.

In the economy history of Europe, historain distinguish between two broad causes of poverty, which vary among countries and among different historical periods. In the first, before population growth presses upon available resources, especially land, poverty is seen essentially as due to the attributes of individuals, so that the poor are contributed of the sick, the disabled, the young and the old, who are precluded by their own misfortune circumstances from being able to participate in income-earning activity. In the second, with growing population limited land and employment opportunities, the poor includes also the able-bodied who lack viable land holdings and the opportunities to sell their labour remuneratively. In this second type of poverty, the main causes of poverty are structural features of the economy, rather that attributes of individuals. In Nepal, the main source of poverty is the second of these, reflecting the extreme and growing pressure of population growth upon limited resources.

Rapid and accelerating urbanisation and industrialisation can be started to declining in fertility. But, Nepal lacks the large urban population centres with highly visible urban poverty and deprivation. Again its rural population, 91.8 percent of the total population in 1991 census, while densely distributed on a amall area of cultivable land, is surrounded by large vistas of spectacular hills and mountains. For these reasons, perhaps

does not share the reputation of grinding and pervasive poverty. Nepal's population, then is as dependent upon agriculture. Inded about 97 percent of absolute poor are located in rural areas, with the remainder in urban centres of varying size. A very important consideration in this regard is to expand educational opportunities for the children of poor households so that they can compete on more or less equal terms for off-farm work. Such an educational strategy, particularly as it applies to girls, is also indicated as part of a broader programme of reducing fertility and growth rate of population.

However, the youth population, 15-24 age group, represents approximately 19 percent of the total population. Only 34 percent of the males and 16 percent of the female among the youth population, 15-24 age group, are currently enrolled. In this contxt, the educational attainment of the female youth is considerably worse than the males. At least over 50 percent of female youth in age-group 15-19, and nearly two-thirds of those in 20-24 age group have never attended school, most tend to stop after some secondary education, when the females are about 15 years old. In Nepal, children are considered a source of labour for betterment of the family because large land-owning families live together and ensures greater economy returns to the family through working together.

There is a significant correlation between the size of landholdings and family size in Nepal. A number of anthropological studies have revealed that the landholdings of joint/extended families are larger than those of nuclear families (Dahal 1989, 1992). In general, the incidence of joint/extended families is inversely related to income level has been provided with a good example in his study. He shows that Gurungs have sent their male members more or less to join the army bringing more wealth to the village community. This has not only added their income but also their social standing in the large community. This is an example of the flow of wealth from children to parents. In many parts of eastern and western Nepal, not only unmarried sons, but also many unmarried adults sisters and daughters carry loads for wages to meet family requirements.

One of the most important measures of determining the level and trends of fertility is to emphasise the patterns of nupatiality, age at marriage, prevelent in society. Similarly, other nupatiality characteristics such as marital status or the type of marital union, may have a sizeable effect on fertility. Women who marry early will have, on average, longr

exposure to the chance of becoming pregnant and therefore, early age at marriage often implies early age of child bearing and higher fertility for a society. In Nepal, the median age at marriage has risen slowly over the last 25 years. Similarly, there is a strong relationslhip between female education and age at marriage. The median age at marriage for women with no formal education is 16.0 years compared with 16.9 years for those with secondary education. Furthermore, six percent of currently married women in Nepal are in a polygynous union (MOH 1997).

Nepal is a multi-lingual, multi-religious and multi-ethnic society (Chhetry 1995), with highly variable facets of human life and culture. High caste (Brahmin, Thakuri and Chherti. Hindu culture and tarai Hindu castes Maithali Brahmin, Rajput etc.) culture encourages early marriage in Nepal. In the tarai the Muslim population also marries early (Dahal 1992). In 1991 census, 55 percent of the total female population is estimated under above-mentioned categories. If a girl is educated she will marry late is also not effective in the rural as well as urban areas in Nepal. There are some reasons behind this situation. Firstly, the boy prefers a young girl below 20 for marriage if he is 30 years old. So a girl who has master degree and remains unmarried above 25 years finds difficulty in arranging a suitable boy for marriage. Secondly, the premarital sex or any sort of physical intimacy between girls and boys in Nepal is strongly condemned in the Nepali culture particularly in a Hindu caste society. So cultural values play dominant roles for the marital union.

Nepal's experience about the effectiveness of family planning programmes in reducing fertility is not so strong, although it has made it easier for people to get and use modern contraception. The desired overall family size of Nepali couples is not going on radically change due to son preference. From economic and religious point of view, a woman's desire for a son is stronger than that of man, because women's dependency on male family members is very high in Nepali society. Women perceive sons as having a special value as insurance against the risk of divorce, widowhood, abandonment or the taking of the second wife, though the divorce rate in Nepal is very tiny. Most studies indicated that the desird family size is 3.5 to 4 children with a minimum of surviving sons (Karki 1995). The presence of the son is the most important variable in the acceptance of a family planning programme. In this situation, the eradication of poverty, injustice, illiteracy and inequality are insignificant.

In mid-1970s, Nepali couples wanted to have more than four children. Twenty years later in the mid-1990s, their wish has dropped to three children. In urban areas, the desired family size is two offspring. Accordingly, the total number of children born per woman was 6.3 in the mid-1970s which has declined to 4.6 in the mid-1990s. Well-designed family planning programmes play an instrumental role as facilitator of the mass transition to lower fertility in a society.

Along with other countries in the region, Nepal has finally entered into the process of reproductive revolution. The experience of other deeloping countries has also been that once the change is triggered, it typically a non-reversible process. This implies that fertility will continuue on a declining trend provided that the means to control fertility, largely family planning services, are accessible to those who want to space or limit childbearing.

**Revealing Results Of Fertility Transition Underway In Nepal**

Fertility has declined and still is declining in most developing countries, though important exceptions remain. In north India and Nepal, the drop in fertility has been modest (Cleland 1993). The most of the demographers were in agreement that no decline in fertility had occurred in Nepal upto late 1980s. Nepal Fertility and Family Planning Survey (NFFPS 1986) revealed that current use of modern method of contraception by non-pregnant married women has risen to 15 percent. Some analysts felt that the results of survey provided evidence of the onset of fertility decline. Others who examined the data were more sceptical and argued that fertility remained persistently high (Shah and Cleland 1993). Nepal Fertility, Family Planning and Health Survey (NFFPHS 1993) showed that the contraception prevalence rate had risen to 24 percent, and revealed that the total fertility had fallen by perhaps as much as one child per women. For example, the total fertility has been estimated to be 5.7 children per woman (Karki 1995 and Chettry 1995). A substantial drop in fertility has now occurred in Nepal. By 1996, the total fertility had fallen from 6.3 children per woman to about 4.6.

## CONCLUSION

Researchers have referred this onset of decline as a quiet revolution which has implications on education, health, housing, employment, and agriculture sectors.

Today, an estimated 30 precent of Nepali couples use a modern method of contraception either to space or limit pregnancies. While in the 1970s only a small percentage of couples were aware of the availability of birth planning techniques, in the 1990s nearly all couples are at least aware of the methods.

The changes in fertility represents a major social transformation underway in Nepal. It indicates increasing effectiveness of the population and family planning programme. Further, it is an indication of structural as well as attitudinal changes underway in the society, drawing upon the experience of several developing countries that well-designed family planning programme play an instrumental role as facilitator of the mass transition to lower fertility in a society.

The changes in childbearing need to be examined in the context of ongoing changes in social, cultural, economic and political aspects of a society. Diffusion of ideas and motivation to control fertility, such as prospects for improved child survival, are important ingredient in changes in childbearing patterns.

Periodic national surveys over the last two decades have signalled that norms for smaller family size is underway in Nepal. The data have confirmed that decline in fertility has begun in Nepal.

Some of the factors inducing the change may include, improvements in the prospects of survival of children, increasing value of investment in children's education, increasing awareness that fertility control is within reach, and worsening pressure on land resources. Studies in Nepal and elsewhere have established that family planning makes an important contribution to reducing maternal mortality and improving child survival.

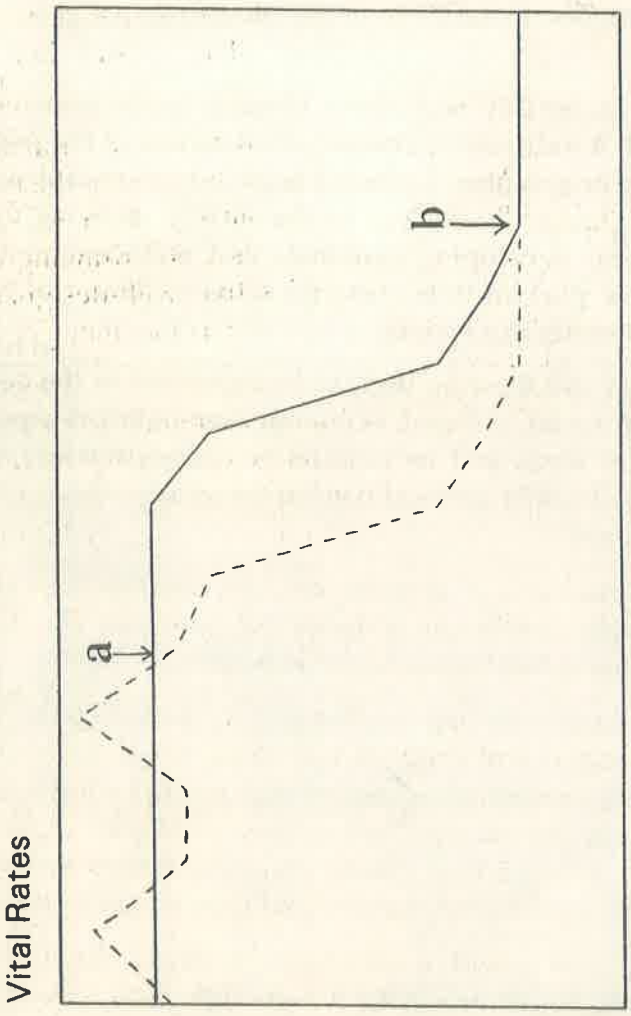
Slowing population growth is still a high priority in Nepal. High birth rates and very young population make it more dificult to reduce poverty, invest in human resources and pursue sustainable economic development. Population programmes should focus on providing the poor with access to high-quality, user-oriented services that offer a range of choice in adressing

fertility regulation and other reproductive health needs. The Cairo Conference offers a special opportunity to readdress the population issue and, by so doing, to make substantial gains in reducing poverty and improving welfare.

**ANNEX 1**

Figure 1

The Classical View of the Demographic Transition




**Source** :John Cleland, 1993 "Different Pathways to Demographic Transition"

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