

Socio-Economic Factors Influencing Fertility*

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INTRODUCTION

Honored guests, members of the Society: I am grateful to Dr. YANG, Jae Fo for making me interrupt my bureaucratic life to think about the topic I have been assigned this afternoon. I am particularly grateful because of the opportunity to talk with you who work at a different profession than I do. We sociologists like to talk to each other, as do you physicians. It takes a special effort to get away from the jargon of our particular professions and to say what we mean in plain English or plain Korean or whatever language we use.

As a newcomer to Korea who is still trying to find his way around the streets of Seoul, I know that you do not expect me to have special information about the socio-economic factors in Korea that influence how many children a woman has during her child bearing years. If there is any excuse for my talking to members of this Society it is to suggest a way of viewing the phenomenon of population growth and efforts at fertility control, using different lenses than you are apt to use in your professional work.

I am going to use three perspectives in viewing the topic today, perspectives on which I draw in my day-to-day work. (1) The first is the perspective of sociology, which is the

study of the collective behavior of social groups, ranging from such small units as the family to such large units as whole societies. The goal of sociology is to understand and explain, not to intervene and change. (2) The second perspective is that of development planning and policy, which is concerned with how to intervene in social and economic development in a way to achieve particular social goals. (3) The third perspective is that of a fund administrator, which is my current Job. In more colloquial terms, the perspective is that of an honest broker who is trying to mediate the relationship between donor groups and recipient groups, or to put it more accurately, the relationship of those who are trying to invest money and those interested in using that money for a particular purpose. To the extent that the purposes and strategies of the two parties can be made to coincide, there is the possibility that each will find the relationship useful and rewarding. Where they do not coincide, it is a sure recipe for problems.

I am aware of how risky it is to try to communicate across professional boundaries with our specialized vocabularies and concepts. I have decided, therefore, to anchor what I have to say in a case, and the case I have chosen is that of Bangladesh.

BANGLADESH-A CASE STUDY IN POPULATION

I have been in and out of Bangladesh, formerly

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East Pakistan, since 1964 and spent most of 1972 there, working among other things on population planning with the Planning Commission and a university group. Bangladesh has much to teach the rest of the world about population if the rest of the world is attentive enough to listen. This new country, now two years old, is at a point in its demographic evolution which most countries will not reach for another twenty years. Most of the elements we talk about in describing the "population problem" are there in Bangladesh in magnified form, so that they can be seen more readily and clearly. Obviously in this brief time I can only mention a few elements in the population situation of Bangladesh and will have to be very selective in what I mention. My purpose in using the case is to illustrate the three perspectives I mentioned earlier.

I have drawn my information from my first hand experience as a United Nations adviser in the country at two different periods, and from the report, Population Planning, prepared by a team of Bengali professionals under the leadership of Dr. Ali Akbar of Dacca university's Institute of Social Welfare and Research¹⁾. I was associated with this project as adviser during part of 1972.

First as to the demographic picture: Bangladesh today has somewhat over 75 million people, compared with the 42 million people it had in 1950. It has a growth rate of 3.1 per cent per year which, if sustained, will result in a doubling of its population to 150 million by 1963. Half of the population in Bangladesh is under sixteen years of age, and this age structure gives tremendous momentum to population growth. This is shown dramatically in Table 1, "Projection of population Growth in Bangladesh, 1970-75 to 2070-75 under Assumption of a Decline in Fertility to Replacement Level by 2000-05,

Table 1. Projection of population Growth in Bangladesh, 1970-75 to 2070-75 under Assumption of a Decline in Fertility to Replacement Level by 2000-05, with Continuation at at This Level for Next Sixty Years²⁾

Period	population at Beginning of Period (millions)	Crude Birth Rate	Rate of Retaral Interese %
1970-75	73.7	44.2	2.72
1975-80	84.4	40.5	2.61
1980-85	96.2	37.1	2.48
1985-90	108.9	33.5	2.30
1990-95	122.2	29.4	2.05
1995-2000	135.5	24.8	1.71
Replacement Level			
2000-05	147.6	20.0	1.32
Achieved			
2005-10	157.7	19.8	1.33
2010-15	168.6	19.3	1.29
2015-20	179.8	18.2	1.19
2020-25	190.8	16.7	1.03
2025-30	200.9	15.3	.87
2030-35	249.8	14.7	.71
2035-40	217.4	14.4	.57
2040-45	223.7	14.2	.44
2045-50	228.7	14.0	.30
2050-55	232.1	13.7	.17
2055-60	234.1	13.5	.08
2060-65	235.0	13.5	.00
2065-70	235.1	13.6	-.04
2070-75	234.6	13.7	-.04

with Continuation at This Level for Next Sixty Years." This table projects population growth in Bangladesh for the next 100 years on the assumption of a radical decline in fertility—a decline from about 7 children per woman to about 2.1 children per woman, which is the so-called replacement level of fertility. If you will look at that table you will see that the population is estimated at about 74 million in 1973, and at 148 million by 2003, employing the assumption that there will be a steady decline in fertility to replacement level during that 30 year period.

If such a decline were to happen it would be a demographic achievement which no country has made up to now. Furthermore, note that even if this replacement level of fertility were to continue for sixty years the age structure is such that the population would continue to grow until it leveled off at 235 million people.

Even with the most optimistic projections about the population carrying capacity of Bangladesh, something will have to give long before that many people arrive on the scene. For over ten years now Bangladesh has been a food importing nation. Imports of grains have averaged around 1 million tons a year, and during 1972 they rose to 2.3 million. This was the year following the liberation struggle, but the grain deficit for 1973 was projected at approximately the same level. If it had not been for the massive relief effort of 1972 organized under the United Nations Relief Operation Dacca-UNROD there would have been mass starvation in Bangladesh. Now that the grain surpluses throughout the world are exhausted, one wonders how the chronic grain deficit in Bangladesh will be met in the years immediately ahead.

On the economic side, 85 per cent of the population is engaged in agriculture and the size of the average family farm is between 2.5 and 3 acres. The market for the major agricultural export, jute, was lost during the liberation struggle and may never be regained against the competition of synthetic fibers. The land used for Jute furthermore, will increasingly be needed for food. There are virtually no natural mineral resources or energy resources except for some gas wells in one corner of the country and one large hydro-electric dam. Even rock for building roads and buildings is not available-the earth has to be made into bricks and baked with coal imported from other countries, and then broken into bits as the aggregate for concrete.

During the liberation struggle, a large number of the entrepreneurs who brought capital and managerial experience to commerce and industry in former East Pakistan fled the country, since they were regarded as identified with the West Pakistan regime. Even though capital may be borrowed from the World Bank and the Asian Development Bank, it will be a slow process for new managerial talent to develop which can promote industrial development. The labor force is largely unskilled, although in earlier times the craftsmanship of the Bengali weavers was renowned in Asia and Europe.

At the administrative and political level, the highly centralized pattern which was left behind by the British colonialists still remains. There is a deeply engrained tendency among Bengalis to look to the Capitol for decision and action. The administrative capability of the new regime in the Capitol, however, is very limited and probably will remain so for some time, and local government and administration has yet to develop strong roots in the people. As in so many countries, there is a tremendous gap between plans and implementation.

Finally, on the cultural side, Bangladesh society still reflects its Muslim heritage in which most women are confined to the home once they reach puberty. Child bearing and child rearing and housekeeping are regarded as the proper roles for women, and except for a small modernized urban group of women, there is no other occupational role open to them.

Such is the internal picture of Bangladesh, incomplete, but sufficient for illustrative purposes. The external relationships of Bangladesh today are determined by its high degree of dependence on other countries, not just for defense and security, but for maintaining even a subsistence level of food supply, and for capital to

invest in long term development. India made a heroic contribution during the liberation and post liberation period, but it has its own internal problems which must come first in allocating resources. The United States has been the largest supplier of material and money and technical assistance, but we see a continuing erosion of U.S. expenditures in its AID program, and it seems unlikely that U.S. assistance will continue at the levels of the 1960's and early 1970's. Private capital can find higher returns in other places than in Bangladesh.

The extreme dependence of Bangladesh on external resources renders it vulnerable to decisions made in New Delhi or Washington or London or Moscow, over which it has little control. This kind of dependence has a tendency to create not only resentment, but also a feeling that internal efforts make little difference compared with the effects of decisions which are in the hands of others.

Looking briefly at efforts to control the birth rate in Bangladesh, a fair balance between births and deaths was maintained up through World War II, with cyclones, floods, famine, smallpox, cholera, and malaria operating to keep the death rate up and the population within the country's resources. Then the technology for death control which had been developed in the Western nations was introduced over a very short period of time, and the old constraints on population growth disappeared. When, inevitably, the number of people outstripped the food supply, Uncle Sam provided American wheat under the PL 480 program and the element of famine has not operated since to restrain population growth.

By the early sixties it had become all too evident what was happening and desperate efforts were made to introduce family planning based on individual couple choice, and a large cadre of civil servants was recruited to provide mo-

tivation and dispense services and supplies. But at the end of the decade less than five per cent of the people were contracepting.

One of the most striking aspects of the population control effort over the past few years in Bangladesh has been the way it has evolved primarily as a reflection of the sources of external assistance available to it. I remember vividly a visiting team from an international health agency that arrived in Bangladesh about eight months after the liberation struggle, remained eight days, and at the end of that time arrived at recommendations for a population program. Being health oriented, all attention in the population area focused on reviving the family planning program, and for the next few months the debate raged about whether to have a single purpose or multi-purpose health and family planning worker. The possibility of doing an end-run around the whole health delivery system in Bangladesh, which serves less than 25 per cent of the population, was never explored in depth. The use of the rural development workers, of commercial outlets, of already established special purpose groups such as trade unions, etc., was suggested by Dr. Ali Akbar and his group, but they did not have the prestige or the access to international sources of assistance that the prestigious visiting mission had, and so population limitation continued to be treated as a responsibility of the health delivery system.

Dr. Akbar and his colleagues tried to put the population problem in the context of the whole national development effort. They pointed out that no society had ever achieved the kind of reduction in birth rate in a short period of time which would be required to head off a population disaster. They urged that serious study be given to a radically different approach—one which no international agency would even discuss, let

alone advocate—namely mandatory limitation of family size to perhaps three children. Dr, Akbar, after outlining the prospect ahead and assessing the measures available to head it off, wrote, "It is imperative that Bangladesh address its problem (of uncontrolled population growth) now, without looking abroad for precedents or waiting for experts to deliver advice which runs counter to their organizations' declared policies."

Based on the view of the problem from within Bangladesh Dr. Akbar and his colleagues were not way out of line. Since leaving Bangladesh I have received clippings of newspapers in which the Secretary in the Health Ministry. has vigorously advocated mandatory sterilization after three children. If we stop for a moment and put ourselves in the position of the responsible and thoughtful Bengalis who are ready to contemplate such a drastic measure as mandatory sterilization. we can appreciate their anxiety that continued reliance on individual choice to restrain population growth threatens the viability of Bangladesh as a nation. In the absence of a truly effective limitation on family size, the old Malthusian constraints of famine, disease, and war appear to Dr. Akbar and many other Bengalis to be the only other way by which a balance can be restored between births and deaths. When Malthusian controls take over, the first victims are the poorest, most defenseless members of the society. One of the ideological commitments which was reinforced by the liberation struggle was social justice, and to many thoughtful Bengalis mandatory limitation on family size is a logical means to preserve justice and at the same time bring population growth under control.

Pursuit of this line of thinking has been very difficult in Bangladesh, however, and the difficulty has been enhanced by the over-presence of external agencies. During 1972, when Bang-

ladesh was flat on its back from the effects of the liberation struggle, it is not surprising that it became over dependent on external assistance at the cost of the country's inner direction. I take my hat off to the courageous Bengalis who are calling for their country to get away from the posture of dependence which was given such reinforcement during the post liberation struggle. But the cost of a radical reduction of dependence on external assistance in order to strengthen the country's inner direction would indeed be terrible.

Such is the case of Bangladesh, which I expect you will remember better than the somewhat abstract perspectives I will present on socio-economic factors affecting fertility.

THE PERSPECTIVE OF SOCIOLOGY

First, as to the perspective of sociology. In Western countries, and particularly the United States with its deep-lying orientation to individualism, the tendency has been to "psychologize" social change, to look for changes in attitudes and values to account for such phenomena as a lowering of the fertility rate of women. This tendency may in part be a reflection of the involvement of many social scientists in the tremendous industry that has been built up around persuasion and opinion formation. But there is a purist group in the field of sociology which tries to explain societal behavior by focusing on sociological variables such as social structure and mechanisms of group adaptation. Attitudes and values are treated as intermediate mechanisms for attaining an equilibrium which is dictated by deeplying tendencies for collective survival.

In providing descriptions of how the fertility of women in a population declines when societies undergo certain kinds of social change, sociology

has gone a long way. We are familiar with the case of Japan, for instance, which achieved a dramatic decline in its birth rate without the propaganda and service network of a national family planning program and without the kind of technology for contraception that has evolved over the past fifteen years. This kind of accommodation can be seen in many other countries such as Ireland and France and Sweden and Germany. A decline in fertility comes about, it seems, irrespective of the availability of modern contraceptives and of promotional campaigns. Sociologists talk about such factors as industrialization, urbanization, requirements in the labor force for women workers, etc. While all of these are very gross characterizations of processes which are little understood, they nevertheless suggest that plans to speed up attainment of a balance between births and deaths will depend upon economic and social changes, some of which can be manipulated by Government policies.

To recognize the fundamental, long-run importance of social and economic forces, however, does not diminish the practical significance of family planning programs in the short run. All the evidence is that where fundamental economic and social changes have brought about a state of readiness to reduce family size, the availability of modern contraceptives and information about their use can significantly speed up the adaptive process. When Professor Brass of London was here a few weeks ago he told about the effect on the island of Mauritius of the provision of family planning services. Within a period of only five years there was a drop in the birth rate from 37 per thousand to 20 per thousand. The implication is clear: The availability of modern contraceptives makes more efficient and rapid the tendency of any society to reestablish a balance between births and deaths. Postponement

of marriage, coitus interruptus, and abortion all work, but they bring with them enough disadvantages to slow down the impact of longterm social forces. And a delayed response by a society to too rapid growth can set off the baby boom cycles which reverberate through the age structure for several generations and cause cyclical spurts in the growth rate every twenty to twenty-five years. In Korea, the females produced during the baby boom of the 1950's are about to enter their child bearing period. It can make a significant difference to Korea if contraceptive services and supplies and information are available to these females as rapidly and as universally as possible over the next decade. The Korean Government is choosing to use more than three fifths of the UNFPA resources for Korea in a crash effort to make contraceptives immediately and widely available to and understood by all potential users.

But the sociologists are right for the long-term perspective: Family planning programmes can speed up the adoption of birth controls, but the fundamental impulse to lower the growth rate of a society will be found in the forces released by urbanization and industrialization and the accompanying social and cultural adaptations.

THE PERSPECTIVE OF DEVELOPMENT PLANNERS

Let us turn, socondly, to the perspectives of the policy makers, planners, and administrators. These groups have a very practical criterion for evaluating the usefulness of knowledge, and that is what it tells them about how to intervene and direct the course of social development and social change. And here we come up square against the the very limited contribution that the applied sociologists or social engineers have

Table 2. Illustrative Appraisal of Proposals by Criteria³⁾

	Scientific Readiness	Political Viability	Administrative Feasibility	Economic Capability	Ethical Acceptability	Prasumed Effectiveness
A. Extension of Voluntary Fertility Control	Good	Good on maternal care, poor on abortion	Doubtful in near future	Maternal care too costly for local budget, abortion feasible	High for maternal care, low for abortion	Moderately good
B. Establishment of Involuntary Fertility Control	Poor	Low	Low	Good	Low	High
C. Intensified Educational Campaigns	Good	Fair to good	Good, but not excellent	Probably good	Generally good	Moderately good
D. Incentive Programnes	Good	Moderately low	Low	Poor to fair	Poor to good	Uncertain
E. Tax and Welfare Benefits and Penalties	Good	Moderately	Low	Poor to fair	Poor to good	Uncertain
F. Shifts in Social and Economic Institutions	Good	Generally good, but poor on some specifics	Low	Generally poor	Generally good, but uneven	Good, over longer run
G. Political Channels and Organizations	Good	Low	Low	Acceptable	Moderately low	Doubtful
H. Augmented Research Efforts	Moderate	Good	Fair to good	Good	Good	Uncertain
Family Planning Programmes	Generally good, but could use improved technology	Fair to good	Fair to good	Good	Generally good, but uneven on religious grounds	Moderately good

made up to now.

In Bangladesh, the portrait and description of the social structure and its impact on population growth is fairly well developed. But there is no comparable development of proposals on how to modify or control that social structure. It is one thing to say that urbanization will be associated with lowerd fertility, but it is another to say how to speed up and guide urbanization. It is correct to say that new roles for women will have to be developed if their fertility is to be reduced, but how to manipulate the family structure and the labor force to make this possible is not clar at all.

This does not mean that we can afford to give up all effort to manipulate social variables. A systematic review of possibilties was undertaken about five years ago by Bernard Berelson,

President of the population Council, in a famous article entitled "Beyond Family Planning." I will not tate the time to review that article with you here, but I am presenting in Table 2 a chart he developed for assessing the possibilities of family planning and non-family planning measures. While it reveals how primitive is the "state of the art" of manipulating social variables, it also reveals how much more is possible than is presently being tried.

I would like to make the point that we cannot wait until applied sociologists and other social engineers have refined their theories and explanations of societal behavior before we move. We need to intervene with the best theory and the best information and the best common sense that we have, whether if focusses on extending the education of young people, particularly girls;

or on industrial investment which provides new roles for women; or on social incentives and disincentives of the kind Singapore is experimenting with. We need to try our best, and in doing so the non-family planning professions will develop new strategies and techniques, just as medicine developed new methods by trying to effect cures even when it did not understand the dynamics of the disease it was confronting.

THE PERSPECTIVE OF INTERNATIONAL ASSISTANCE

The third perspective I want to illustrate from the case of Bangladesh is the impact of external assistance. It is true in every area of development where assistance is given that there are at least two high risks for the receiving country. The first is the obvious one that assistance is usually channeled through agencies which reflect the sectoral structure of highly developed and differentiated societies. Assistance provided by such societies tends to reflect the tools, the technology, and the division of labor of very rich countries. In Bangladesh, the means of responding to the country's problems will necessarily remain very simple for some time to come. In the crisis atmosphere of 1972 the assistance agencies moved in with great ideas about how to do their thing, but for the most part they did not have the necessary time to find out whether their thing was supportable with the economic and social infrastructure of Bangladesh. Just as an example from another field, Bangladesh can grow miracle rice beautifully, double cropping in most places, but to grow miracle rice requires a high degree of technical skill, substantial capital inputs, supplies of pumps and diesel fuel and fertilizer and insecticides, and then storage and marketing facilities. Can the social organizational capacity of Bangladesh

manage to handle this kind of technology? Perhaps, but it does not seem likely.

The health sector is another example of the technology and social structures of Western nations dominating the medical system of a society which is at a very different stage of development. Of the ten great health problems confronting Bangladesh, from smallpox to maternal health to nutrition to T.B., not one, according to an outstanding German physician who had worked in the sub-continent for over a decade, needed hospital facilities. But the bulk of Government investment in health programs for the new nation of Bangladesh is being directed to building a small hospital in every county. With regard to personnel, it is almost impossible to get a qualified M.D. to stay out in a rural assignment, for understandable reasons and some time the gap will have to be filled by the barefoot doctor types. But barefoot doctors are not part of the medical baggage of modern scientific medicine and Bangali doctors, indoctrinated in the theory and technology developed in Western medicine, tend to do what they know how to do best practice clinical and hospital based medicine, and by-pass the tremendous challenge of structuring paramedical roles, recruiting and training paramedical personnel, and administering medical services delivered through these means.

To recapitulate the risks inherent in external assistance, the first is the way it is structured though the sectoral and professional institutions of the more developed, rich countries. And this kind of external assistance may well operate to retard, rather than stimulate, an indigenous and supportable type of technology and institutional structure.

The second risk is the vulnerability of receiving nations to decisions made outside of the country, whether it be Washington or Moscow

or Geneva or New Delhi. Of course we are all vulnerable to decisions made by others, but some protections against this vulnerability are possible. I am pleased with the effort of my own organization, United Nations Fund for population Activities, to make its funds available to countries in new ways which run counter to the old pattern of assistance. The usual pattern of assistance insists on controls in project implementation and use of project funds which may protect the technical implementation of a project, but prevent it from becoming a genuine achievement of nationals who have to have freedom to try out their own ideas and to produce mistakes along with successes.

The UNFPA approach, very briefly, is to separate international technical assistance from international financial assistance and enable countries to request one without having to take the other. UNFPA also has made provision for direct funding of projects, whereby funds flow directly from the funding agency, UNFPA, to the country project via the local UNDP fiscal officer. The funds can be, but need not be administered by one of the U.N. specialized agencies.

How to cope with the phenomenon of vulnerability, which all of us experience when we are on the receiving end of a relationship and have low bargaining power, is in some ways a matter

of professional skill, but it is also a matter of structure. The structure of the typical technical assistance relationship is from above downward—as water flows down hill, so assistance tends to place the receiver in a lower position than the giver. And this does not lead toward what development assistance is supposed to achieve—institutional and individual self reliance and self direction. There has to be a readiness to gamble, and it is not a costly gamble for an international agency to relinquish the controls it is used to for the larger goal true development.

(Thank you for your patience, not only with my language, but with the length of time I have inflicted it on you. I hope there will be a chance to pursue the issues I have posed here in future meetings)

REFERENCES

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- 3) Bernard Berelson: *Beyond Family Planning. August 1968.*