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ABSTRACT

This publication contains reprints of five documents that were either published in foreign journals or released in limited numbers by author or publisher. The papers are all concerned with population education, but deal more specifically with the role of population and the schools. Among the topics discussed are population education and the school curriculum; issues and problems in introducing population education; a new role for schools - population education; the schools and population; and ethics, population policy, and population education. (BT)

POPULATION EDUCATION DOCUMENTS

POPULATION EDUCATION AND THE SCHOOL CURRICULUM
by J. E. Jayasuriya

ISSUES AND PROBLEMS IN INTRODUCING POPULATION EDUCATION
by Sloane R. Wayland

POPULATION EDUCATION - A NEW ROLE FOR THE REGION'S SCHOOLS
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THE SCHOOLS AND POPULATION
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POPULATION POLICY, AND POPULATION EDUCATION
by Robert M. Veatch

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AND

THE SCHOOL CURRICULUM

by J.E. Jayasuriya

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POPULATION EDUCATION AND THE SCHOOL CURRICULUM

Some implications of the population situation

The implications of certain features of the population situation, as at present and as projected for the future in the countries of Asia and in the world as a whole, are such that the conclusion is irresistible that no social problem which concerns man — as an individual, as the member of a family, as the citizen of a country, and as a member of the world community — is of as much importance for the future of his existence as the problem, or the complex of problems, associated with the growth of population. A few of the more important implications may be summarized here.

1. Early this century, Charles Darwin, in his well-known classic, *The Origin of the Species*, made the following comment: "Even slow-breeding man has doubled in twenty-five years, and at this rate, in less than a thousand years, there would literally not be standing room for his progeny."[1] It is now realized that Charles Darwin made an underestimate, and that in a matter of six or six and a half centuries from now there would be less than one square foot per human being, less than standing room, in fact. Civilised life would be impossible then, and possibly even a century or two before then or, in other words, four or five centuries from now, which is indeed not a great deal of time ahead from the present. We need not, however, look that far to appreciate the gravity of the problem. A doubling of the present population of the world will require about 30 years from now, and each further doubling will require less and less time, if mortality rates decline and fertility rates remain at their present level.

2. In so far as Asia is concerned, it is the continent which exemplifies the problem of population in its most acute form. Asia has more than half the world's population, though the extent of land occupied by it is only one fifth of the total area of the earth. In spite of the most determined efforts of the nations concerned to develop their educational systems, the race against population growth has been a losing one. There are more illiterates, aged 15 years and above, in the Asian region now than there were twenty years ago; there are more children, aged 5 years to 19 years, out of school now than there were twenty years ago. Far from increasing current educational enrolment ratios, which are already too low, maintaining even these ratios in the future for the increasing population has become an up-hill task.

3. A rapid rate of population growth has served to limit investment, the capacity for economic growth and the potential rate of growth of average income, thereby reducing the pace of improvement of standards of living and the quality of human life.

4. The problems of urbanization loom large over all nations, both developed and underdeveloped. Shortages of housing, water supply and sanitation combine with water and air pollution to constitute grave hazards to human life in all thickly populated areas.

These features of the demographic situation have no doubt contributed in substantial measure to the malaise of crime, violence, conflict, etc., that is manifesting itself in myriad forms in all countries of the world. Its genesis may lie largely in the revolution in men's minds and actions that has sprung from the frustrations of modern life and the unfulfilled expectations of a better future that was hoped for but is found incapable of attainment.

The importance of population studies

Clearly, from whatever angle we look at it, the rapid growth of population presents an issue of momentous significance for man, and no educational programme that makes any claim of relevance to human issues can ignore it. For some time past, a few educators have been forcefully arguing the case for the inclusion of population studies in the curriculum. In 1962, Warren S. Thompson wrote in the *Teachers College Record* as follows: "In regard to education, I assume that the purpose of formal education in a democratic society is to prepare our youth to cope more effectively with the increasingly complex problems of modern society in matters that come within the competence of the mass of citizens to decide. This can probably best be done by giving the student the facts needed to provide him with a basis for the intelligent consideration of social policies intimately and directly affecting him and his family. Such policies must be decided at the 'grass roots' if they are to become effective. Certainly, no basic policy aimed at controlling growth can be effective when imposed from above.... The presentation of the essential facts must, of course, be accompanied by as thorough and objective discussion as possible."[2] Writing in the same issue of the *Teachers College Record*, Philip M. Hauser lamented the fact that the heightened interest among various groups and agencies all over the world in population matters "has had relatively little impact on the school curriculum."[3] He went on to point out that the facts and implications of population changes were indeed "conspicuous by their absence or by their superficial and cursory treatment" in education, and argued that information about population should be regarded as an "essential part of a general education."[4] During the three- or four-year period immediately preceding 1970, a few attempts were made in South America, the United States, and India to introduce population materials into the curricula of a small number of schools in these countries. From 1970, however, Unesco has entered strongly into the field of population education. A workshop on Population Education, held in Bangkok in September 1970, broke new ground, and its Report is perhaps the most comprehensive statement available anywhere in the world on the field of population education.[5] The Workshop has served to stimulate a great deal of interest in the countries of the Asian region. Some of them have organised national workshops as a follow-up on the Bangkok seminar, and produced experimental materials for introduction into schools. Three Asian countries, apart from India, that have shown great initiative in this field are the Philippines, the Republic of Korea and the Republic of China.

A comment on terminology

While Warren S. Thompson and Philip M. Hauser were the first to urge the inclusion of population studies in the school curriculum, it was the task of other educators to give concrete shape to a programme. One of the pioneers in this field is Sloan Wayland, and it is to him that the term 'population education' appears to be owed.[6] He was interested in the introduction of population studies into the school curriculum, and he noted that the terms "sex education" and "family life education" which were in current use in the West before there was any concern about population studies had been used by some to encompass the new field. He was not in favour of the use of these terms as the substantive content and focus in the new field were different. Moreover, he thought it best to use a term which did not evoke "negative responses by educators and the public." For these reasons, he suggested the term "population education." His views on the content of the field were as follows: "...we are concerned about the inclusion in the formal educational system of instructional settings in which young people will come to understand the circumstances which have led to the adoption of family planning as public policy and to understand that for the family and the nation, family planning is possible and desirable. This would include an understanding of the relationship of population dynamics to economic and social development of the country and the implications of family size for the quality of life of the individual family." In a list of six basic topics given by him in another article,

Wayland includes "development of basic understanding of the process of human reproduction."[7] It will be seen therefore that certain elements of family life education and sex education are included in Wayland's concept of population education. Noel-David Burleson has used another term, namely "population awareness" in suggesting materials for inclusion in the school curriculum.[8] A narrower scope than that envisaged by Wayland appears to be implied in the use of the term population awareness. Thomas Poffenberger defines population awareness as "the communication of those aspects of population dynamics which indicate the significance of population growth in terms of its social, economic and political consequences for a given area."[9] Unesco appears to favour the term "population and family education," judging from the way in which the theme of the Bangkok Workshop of 1970 was titled. A difficulty in adopting this term is that in order to justify the use of the term the whole area of family relationships will have to be included, although much of it would have no relevance to population issues. In the circumstances, a great deal may be said for the adoption of Wayland's term "population education," including in the content such elements of family education and sex or reproduction education as are logically related to population issues.

The content of population education

In considering the potential content of population education, it is proposed to adopt the approach of looking at it in a total perspective that would bring within it whatever appears to be logically related to it. Five broad areas within which the content appears to fall may be demarcated.

A. *The collection and analysis of population data*

A detailed break up of the content under this head would be as follows: methods of collecting population data; the demographic processes of birth, death and migration; calculation of birth, death and growth rates; the age structure of a population and the causes underlying different kinds of age structures; determinants of fertility, morbidity and mortality; trends in population growth: refined indices of fertility and mortality.

B. *Population growth and human development*

At the macro-level of the nation, the topics to be considered would be the relationships between population growth and such variables as land and natural resources, agriculture, food, housing, employment, economic development, educational development and the development of health services.

At the micro-level of the family, the topics to be considered would be the impact of family size on the quality of life in the family and aspects of development of the individual.

C. *The problems of urbanization*

D. *Psycho-social aspects of human sexuality. The reproductive process.*

E. *Population planning*

The objective of a course such as that outlined above would be to give the learner an insight into the totality of issues connected with population, ranging from the nature, measurement, causes, determinants and consequences of population growth as well as of urbanization both at the micro-level of the family and at the macro-level of the community, the nation, or the world at large to the dynamics of the reproductive process, and finally to the possibilities of planning family size and population growth. Hopefully, the acquisition of such an insight may succeed in providing the learner with a sound cognitive and attitudinal basis that would contribute to rational decision-making, both as an individual and as a member of society, when occa-

sions for such decisions arise. An obvious situation in which a personal decision will be involved will arise many years later, in adulthood, when the learner would be faced with the process of decision-making in relation to reproductive behaviour, not in the insulated atmosphere of a classroom but in an emotionally charged socio-psychological context in which both individual urges and role expectations, as husband or wife, and as an adult member of a social group, would powerfully affect decision-making and action. While it would be idle to pretend that exposure to a course on population education would definitely ensure a decision that is productive of both individual and social good, it is reasonable to expect that the probability of a rational decision from a person who has had such educational experiences is much higher than from a person who has not had an orientation to population issues.

It has to be recognised that much of the current interest in population education has arisen from the need to reduce the rate of population growth in many parts of the world by encouraging in these areas the wide adoption of a small-family norm in the hope that reproductive behaviour would be in accordance with such a norm. The unmistakable specificity of this all-important long-term objective makes population education different from almost every other educational activity that is usually undertaken in our educational institutions. Educators are, however, agreed that the best educational preparation for the achievement of this objective is to promote the development of an insight into the impact of population growth on the quality of life by means of a programme that is untarnished by any kind of crude propagandist emphasis. Stephen Viederman says, "The aims of education are to increase awareness and, hopefully, to help us achieve wisdom in the conduct of our lives, both as individuals and collectively. These aims are shared by the new field that has come to be called population awareness education.... population education aims at developing informed individuals who will, as a result of the knowledge and understanding achieved through their education, make responsible decisions concerning their own reproductive behaviour. The key concept is responsible decision-making which involves fore knowledge and understanding of the consequences of one's actions. This is the beginning of wisdom, and represents the moral and ethical purpose of population education."[10]

Over and above any pragmatic objective related to the small-family norm or the limitation of population growth, population education, in the hands of an imaginative teacher sensitive to the analysis of dynamic relationships between interconnected variables opens up interesting possibilities of examining the interplay between such variables and sharpening the insights of students. Population growth is a function of, or in other words, is dependent on, the three processes of natality, migration and mortality, each of which is in turn dependent on a number of determinants. Differentials in the nature and magnitude of the determinants in so far as they affect different groups of people or nations produce variations in natality, migration and mortality and finally in the size of the population and its growth rate. The age structure of a population depends on the patterns of increases or decreases in natality, migration and mortality and affects them in turn. So does the sex structure of a population. The potential number of school entrants, the burden of dependency, the potential labour force and the number of women of child-bearing age also depend on the age structure. A change in the age structure would affect all of them. Economic growth depends on a number of variables such as savings, the size of the labour force, availability of land, etc., all of which are dependent in one sense or another on population growth. Examples of this dynamic interplay of variables encountered in the study of the nature and impact of population growth can be multiplied almost without limit. The exploration of such issues is without doubt a valuable and challenging intellectual activity that could lead to a deep appreciation of the relationships between man and his multifaceted environment. Even such a mundane affair as the calculation and interpretation of population indices can lead to a heightened sensitivity to the meaning and significance of numerical relationships. Discussions of the basic weakness of crude birth rates and death rates and the dangers involved in generalizing from them would lead to the development of a critical

attitude towards numerical relationships. An understanding of standardization as a method of ensuring comparability, and of the calculation of age-specific fertility and mortality rates, standardized rates and reproduction rates as a method of obtaining more and more refined measures to describe phenomena, will provide an effective illustration of the purposive activity of the human mind in its search for more and more meaningful ways of comprehending the processes that go on around him. It will be seen from these examples of the educational possibilities of population studies that, in the hands of a knowledgeable and imaginative teacher, population education could have distinctive educational uses to warrant its inclusion in the school curriculum, apart from any pragmatic purposes that may be achievable in the long run, and for which a sound cognitive and attitudinal basis may be laid in school.

Some problems in introducing population education

In connexion with the introduction of population education into the school curriculum, note will have to be taken of

a) the views of parents regarding the advisability or the appropriateness of including certain topics;

b) the preparation of teachers to handle population education;

c) the age levels at which different topics should be introduced and the key concepts to be emphasized at each age level;

d) the subject matter areas through which the topics, and the key concepts involved in them, could be introduced;

e) the lack of relevant research data, especially on the motivational issues.

a) It is possible to distinguish within the field of population education certain topics which are non-controversial, the presentation of which to children would be readily accepted by all parents, and certain other topics about which parents may have reservations. Any attempt to thrust on the school elements about which parents have reservations would be to endanger the entire programme of population education. Where some elements in the proposed programme do not meet with the approval of parents, the best policy would be to act in accordance with parental wishes and to accept the position that children would derive benefit even if they are exposed only to the remaining part of the programme. What may be desirable or feasible in one country may not be desirable or feasible at all in another, and the need is to adopt a strictly pragmatic approach that is sensitive to social pressures. A topic that may create a certain amount of difficulty is that relating to sexuality. It is not only in the Asian countries that this topic could present difficulties. Thomas Poffenberger says, "... the introduction of sex education and family life education programs and their continuation, has not always been smooth either in the United States or in European countries, and in the last few years parental opposition and vested interest group opposition seem to have increased. In Sweden which has had one of the most active sex education programs in Europe, a review of school policies has been undertaken. In the United States, there has been growing opposition to sex education programs in the last year or so."[11] Poffenberger also refers to a developing country (not mentioned by name) in which "the wide publicity given the program before any planning and the use of the term 'sex education' had increased the difficulty of adding any population material to the curriculum." This situation shows the dangers involved in trying to include material that may not be favoured by parents. The moral for curriculum planners is to develop a sensitivity to parental opinion and public opinon, and to go ahead with such parts of the programme as are acceptable to parents and which would achieve the objective of the programme even partially though not wholly. Several writers on population education have been careful to stress such a point of view.

Harold Howe writes as follows: "Population education is not family planning or birth control education although these topics are related and relevant. Population education is merely instruction in the dynamics of population without the emotionally charged areas of sex, birth control and family planning. The consequences of a rapidly growing population can be taught in an objective, non-sectarian manner without examining areas likely to raise governmental and parental opposition or to create discomfort among instructors. The content of population education is more palatable or less controversial for both the teacher and the taught than birth control and family planning concepts. It is geared to the creation of a desire for information about these fields but with a more proper understanding of their function than has usually been encouraged before: it seeks to implant an understanding that a planned, small family is desirable if national and personal development are to be possible."[12] Edward W. Pohlman and K. Seshagiri Rao argue that while an understanding of sex gives a more complete picture to population education, it is not essential and that "one can teach about (1) population dynamics and the problems of overpopulation, (2) advantages of small families and (3) advantages of later marriage without discussing sex or contraception in any way."[13] They point out that the "population crisis is a matter of life-or-death urgency" and as such demands priority. They do not want to risk population education being involved in controversies about sex or contraception education, for they feel that parents and community leaders "who would accept population education alone will block any efforts to teach a combined programme." To cut a long story short, the trend of thinking among many educators is that population education is of such vital importance, even in dissociation from sex education and family education, that the surest way of ensuring its acceptance in the school curriculum is to concede this dissociation both in theory and practice. None of them would oppose sex and family planning education, if the community of parents and teachers wanted them; if they are included, perhaps population education would be complete in all its elements. But if communities are wary about sex and family planning education, let this not stand in the way of the introduction of a population education which is, using the words of Pohlman and Rao, "clearly and loudly divorced from sex education, family life education and contraception education."

Another issue that could raise complications is a propagandist emphasis on the small-family norm. To be sure, the acceptance in word and deed of a small-family norm is essential in the case of the people living in many parts of the world, and especially the underdeveloped countries of Asia, if population education is to achieve one of its most important purposes, but this acceptance must come at a mature level of understanding on the basis of an intellectual appreciation of the advantages of a small-family norm from the point of view of both the individual and the community at large. Any attempt to press home the small-family norm prematurely at a simplistic level, without allowing the norm to crystallize as a result of an increasing awareness of its advantages, may result in disturbed interpersonal relationships within the child's own family constellation, if the manifest norm in it is that of the large family. In a talk delivered at a national seminar on population education held in Bombay in 1969, Dr. V.K.R.V. Rao, the Union Minister of Education and Youth Services of the government of India pointed out the danger of creating in children "feelings of disaffection for their parents and hatred for brothers or sisters in case they constitute a large family."[14] Apart from this danger, which could be quite real, there is the possibility that if population education is perceived to be both propagandist and out of tune with an accepted norm it is likely to be resisted. Research on communication carried out by C.I. Hovland, I.L. Janis and H.H. Kelly shows that communications which are regarded as instructional rather than persuasive are more readily accepted.[15] One characteristic of an instructional communication is that conclusions are incontrovertible and likely to be socially rewarded in accordance with the norms of people important to those receiving the communication. Where there is a disjunction between the message of the communication and the norms of the persons important to those receiving the communication, the message is likely to

be resisted. Hovland, Janis and Kelly point out that "to the extent that the latter conditions prevail, it is always an open question whether the effort is warranted." The moral from this is to desist from giving population education a propagandist flavour and to present the facts as objectively as possible at the learner's level of understanding, leaving it to the facts themselves to throw up in course of time the essential lesson to be learned from them. It is by this means that the possibility of rejection, arising from dissonance with existing norms, can be minimized. The importance of a subtlety of approach that eschews propaganda cannot be overemphasized, if population education at the school level in the developing countries is to achieve its long-term objective of encouraging the acceptance of a small-family norm.

b) An important prerequisite before a successful programme of population education can be launched is the availability of teachers. The urgency of introducing population education is, however, such that much valuable time may be lost if we wait until fully prepared teachers are available. The need arises therefore to draw up short-term plans for getting programmes going with such introductory courses for teachers as are feasible, and long-term plans for a more comprehensive preparation of teachers. Sloan Wayland is of the view that "concentrated work for three to six months should be enough time for an experienced educator to develop a high enough level of competence to provide leadership" in developing programmes in the field of population education.[14] The teacher's preparation should be comprehensive, and it should include all the elements of population education so that the teacher would be able to handle population education materials with accuracy and confidence. Though the subject matter of population education is of an interdisciplinary nature, it is not intrinsically difficult, and in so far as the teacher is concerned a single unified course would probably meet his needs, provided he engages in a dedicated effort on his own to keep in touch with relevant literature in the field and progressively acquire mastery over the field. Any temptation to entrust the subject to very inadequately prepared teachers should be resisted, for it could yield more harm than good. Some statements in Gilbert Highet's *The Art of Teaching*, are of interest in connexion with the teacher's preparation and task. "... One cannot understand even the rudiments of an important subject without knowing its higher levels—at least, not well enough to teach it. Every day the grossest and most painful blunders are made ... by teachers ... because they confidently state a half-truth which they have read in an encyclopedia article, or because they lay down as gospel a conjecture once uttered by an authority they admired. And many teachers, trying to explain certain problems in their own subject, fall into explanations suggested to them by a colleague or thrown up by their own imagination, which are nevertheless totally wrong, and which an extending knowledge of the field would have corrected long ago.... It is simply useless to teach a child even the elements of a subject, without being prepared to answer his questions about the upper ranges and the inner depths of the subject.... A limited field of material stirs very few imaginations. It can be learnt off by heart, but seldom creatively understood and never loved. A subject that carries the mind in limitless journeys will, if it is well taught, make the learner eager to master all the preliminary essentials and press on."[15]

India and the Philippines seem to be the only two countries in Asia which have made some sort of a start in the preparation of teachers of population education. In both countries, a number of short workshops have been conducted for teachers during the past one or two years, and several are scheduled for 1971. In so far as universities are concerned, the Faculty of Education and Psychology of the M.S. University of Baroda in India has established a Population Education Centre. This centre is trying out a course of extension lectures on population education with its Bachelor of Education students. A few post-graduate students of the university have commenced work on research studies in the area of population education. In the Philippines, the Philippine Women's University in Manila and the Wesleyan College, Cabanatuan City, have initiated courses in the field of population education. The Unesco-sponsored Asian Institute for Teacher Educators located in the University of the Philippines has cooperated with the Bureau of

Public Schools at a three-week seminar on population education for Filipino educators, and also provided an introductory course on population education for 21 key teacher educators of the Asian region enrolled in it for a three-month course of studies. It is hoped that many of them will take the initiative in developing courses on population education in the teachers' colleges in their own countries. In India, the Indian Association of Teacher Educators has already made an appeal to the teachers' colleges of the country to conduct extension lectures for teacher trainees to orient them in the concepts and methods of population education. In a matter of months, or at any rate within a couple of years, the demand for such courses is likely to be widespread in all the countries of the Asian region. The Bangkok Workshop of 1970 "emphasized the high priority that needs to be given to the adequate in- and pre-service preparation of teachers if the implementation of a Population Education Programme" is to succeed, and made a number of recommendations to be implemented at the national level and at the international level.[16]

c) There has been a certain amount of controversy as to the age levels or school levels at which materials on population education should be introduced. The arguments for introducing population education at the elementary or primary school level are as follows:

1. The highest enrolments in education are in the elementary or primary grades, and population education should be introduced in these grades to enable the largest number of children to be reached. Children drop out of the elementary or primary school as they go up the school, and the number of pupils joining secondary schools is only a small fraction of those who were in the early grades of the elementary or primary school. If the introduction of population education is postponed until the secondary level, many will not get it at all in school. Their chances of acquiring information about population matters out of school are also limited, as many of them would not have attained a high standard of literacy. Moreover, in the villages in which they are more likely than secondary school leavers to reside, opportunities of exposure to the mass media are restricted. In view of the wider prevalence of large-family norms among rural folk than among town folk, the need to canvas the rural folk is very great, and it is by the inclusion of population education in the elementary or primary school curriculum that this objective can be achieved.

2. The elementary or primary school curriculum usually provides a great deal of flexibility for the introduction of new materials. In very many countries, there is no great concern with examinations at this stage, and therefore the constraints on the use of experimental materials are relatively few.

There is great substance in these arguments but their limitations should be understood. If the intention is to reach the largest possible number of children, then population education should be introduced in the lower grades of the elementary or primary school. The development of materials at a relatively simple level of intellectual sophistication is no easy task, and there is a certain danger that the concepts in population education that are to be introduced may undergo a considerable oversimplication in the process. Moreover, the earlier a child is introduced to population education the greater will be the distance in time between his exposure to the programme and his decision-making processes in relation to population. What evidence do we have that such early exposure, without any exposure at all during the intervening period, would affect decision-making and reproductive behaviour fifteen to twenty years later? If our objective in introducing population education at the elementary or primary school level is limited to making children conversant with simple population data and with population growth as an issue that touches human life and society at a number of points, it should be possible to give such an awareness without necessarily claiming a successful inculcation of the small-family norm and decision-making many years later in accordance with it. In other words, modest objectives that prepare the ground for the attainment later of larger objectives may be achievable at the elementary

or primary level. It would be realistic to admit that both those who are exposed to the programme in the elementary or primary school, and those who are not exposed to the programme as they have dropped out of school would need exposure to population education in their middle and late adolescence, if their reproductive behaviour is to be influenced. Such exposure will have to be provided through programmes in secondary and tertiary level institutions for those adolescents attending them, and through out-of-school youth and adult education programmes for the others. Naturally, in the case of the latter, the emphasis could be placed more markedly on the small-family norm and on family planning than on other issues related to population growth. If this argument is accepted, its moral for the introduction of population education materials at the elementary or primary level is that every natural opportunity for introducing population-related materials should be availed of by the teacher, with due regard to the cognitive development of the pupils. There should be no straining to inject material artificially, especially material of a kind for which the justification lies in the hope that it would bear fruit fifteen to twenty years later. It is especially important that teachers introducing population education at the elementary or primary school level should bear in mind V.K.R.V. Rao's caution, quoted earlier, against creating in children feelings of disaffection towards their parents and siblings. While this caution is not unnecessary at the secondary school level, it is in respect of the elementary or primary school child that it has to be strongly emphasized for two reasons. Firstly, the child is more pliable emotionally and less able to see situations in a total perspective. Secondly, if the subject of family size is presented at all at this stage, it is likely to be presented in an oversimplified manner that could sow the seeds of disaffection.

The arguments urged for the introduction of population education at the secondary level are as follows:

1. Curricular materials are easier to prepare for the secondary level than for the elementary or primary level. This is so as secondary pupils have a broader experience than elementary or primary pupils. Being older and more mature, they would be able to appreciate in some depth the relationships between population growth and other variables. Opportunities for the introduction of population education materials will be available in a number of subjects of the secondary curriculum.

2. In view of the fact that secondary level enrolments are low, the number of teachers required for introducing population education would be smaller than the number of teachers required for introducing population education at the elementary or primary level.

3. As secondary pupils are only a handful of years away from the time when they would make decisions regarding marriage and reproduction, a programme of population education would be full of meaning to them and may make an impact on their decision-making processes in these areas.

Little doubt exists about the appropriateness of population education for pupils at the secondary level. Even if students have been exposed to relatively simple programmes of population education at the elementary or primary level, the secondary level would sharpen whatever insights they have gained. Moreover, certain issues that may have been mentioned only incidentally at the elementary or primary level can be emphasized. It should, for example, be possible to discuss with secondary pupils in a comprehensive manner the factors that have led the people in many societies to adopt a large-family norm, examine the appropriateness of such a norm in the context of the world of today, and attempt to inculcate in the pupils the ideal of a small-family norm.

d) While a single unified course on population education may be the best means through which teachers of population education may be prepared, in the case of children at the elementary or primary level, it is perhaps out of the question trying to introduce population education

as a distinct subject The approach should be to introduce population-related materials through such subjects as literature, history, geography, social studies, mathematics, general science and health education. This should be the approach with secondary pupils, too, in the first few years of their course at least, but a wider range of subjects than at the elementary or primary level, namely such additional subjects as biology and economics, would be available and make treatment in depth possible. With pupils in the last year or the penultimate year of secondary school there may be a case for providing a short, unified course, say, of one hour's duration a week for about ten weeks, to consolidate and integra ledge and insights the pupils have gained into the problems of population growth h their exposure to population-related materials in the subjects they have studied during the previous five or six years. A short course of this nature is unlikely to be regarded as a burden on the curriculum, and it should be possible to accommodate it without difficulty in the school time table. Apart from the advantage in drawing together and integrating ideas and concepts in population education that have been acquired over the years through the different subjects of the curriculum, the inclusion of a subject designated 'population education' in the final or the penultimate year of the secondary school would give a certain independent status to this field of study. At this juncture in the development of population studies, the acquisition of such a status may well make it a talking point among parents and the general public, and give the subject an importance that would be conducive to its further development.

The introduction of population-related materials into the various curricular areas assumes that syllabuses of study in these curricular areas have a flexibility that permits such a procedure. If, on the contrary, there is no such flexibility, the task of the teacher would be made all the more difficult and it would require a great deal of ingenuity on his part. It is important to ensure that the introduction of population-related material takes the form of a natural integration with other content rather than a straining of such content to accommodate the materials in an artificial or unnatural manner. When occasion arises for syllabus revisions, as is usually the case every two or three years in most school systems, full use should be made of the opportunity to open up possibilities of introducing population-related material at appropriate points.

As a practical measure, it is useful to identify the concepts that should be introduced in population education, and to examine each concept carefully with a view to determining the curricular area or areas through which it could be introduced and the depth at which it may be introduced at each possible level.

e) The effective inculcation of the small-family norm requires among other factors an understanding of the motivational basis underlying the large-family norm in different socio-cultural groups. Research done so far to unravel this motivational basis is quite inadequate, and a great deal of further work is needed. The generally available research findings are based on responses to questionnaires that have been administered in connection with K.A.P. (Knowledge — Attitude — Practice) surveys. Their response validity, especially on motivational issues, is greatly to be doubted. This is borne out by the fact that findings from questionnaire studies are seen to be not supported when interviewing in depth is undertaken. The latter has so far been done only on a small scale on account of the shortage of personnel to undertake such studies. Teachers who are interested and prepared to undergo suitable training could prove quite active researchers in this field, and help in gathering data about the motivational basis underlying the large-family norm and the barriers to the inculcation of a small-family norm and the acceptance of family planning. Every socio-cultural group has its particular ethos surrounding these issues, and population education as well as family planning propaganda should take account of it, if success beyond a certain point is to be achieved. Some success will be achieved even through a general programme that ignores specific motivational factors, but this is an illusory kind of success. For success beyond a certain point, the hard core of non-acceptors of the small-family norm and family planning has to be satisfactorily tackled, and for this purpose a clear understanding

of motivational issues is required. It may be because of the neglect of this factor that in India during the past two or three years a plateau has been reached in the number of acceptors, in spite of an increasing deployment of personnel and money. The involvement of teachers as population educators makes available a leadership of great potential for participation in population activities, and many new dimensions may be added to programmes as a result of their leadership.

Conclusion

It has been the endeavour of this paper to provide a broad perspective of the field of population education at the school level in the hope that teachers who are not yet acquainted with the field would begin to take an interest in it and make an attempt to introduce population-related materials and concepts when opportunities arise in the course of their teaching. While this paper has not been concerned with the introduction of population education to out-of-school youth and adults, the possibilities of doing so should be actively borne in mind as they are either on the threshold or in the midst of their reproductive behaviour, and constitute an important target group, the modification of whose family norms and reproductive behaviour could bring immediate results from the point of view of inducing a slow rate of population growth.

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Population Education Documents

ISSUES AND PROBLEMS IN INTRODUCING POPULATION EDUCATION

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ISSUES AND PROBLEMS IN INTRODUCING POPULATION EDUCATION

The curriculum of the educational system in a dynamic society is constantly changing. In some instances the changes represent more effective ways of attaining the established goals of the system. In other instances, the changes involve new educational objectives or at least new emphases within the framework of established goals. One curriculum change of this latter type that is being considered in many countries in all regions of the world is the introduction of content which is usually referred to as "population education" or "population awareness education".

As is true for any new field of study or new emphasis, there is not full agreement on the definition of the field and the terms of reference to be used. The focus of concern is education in the formal school system concerning human population dynamics as related to both personal and general social development. Although the term "population education" does not in itself convey the full scope of this field, this is the term that will be used in the following discussion.

When a change in curriculum content is being considered by professional educators, a series of basic questions must be raised including the following:

1. Why should the new content be considered for inclusion in the school curriculum?

2. What aspects of the full range of potential content of the new field are appropriate for a particular education system?

3. What changes in the existing features of the education system would have to be made to establish the new programme or emphasis on a sound and continuing basis?

4. Are the expected outcomes from the changes commensurate with the investment of time, personnel and resources which would be required for successful introduction?

5. What is the series of steps which would need to be taken in order to introduce the change?

6. Are the resources and personnel needed to effect the change through the different stages of the introduction available or can they be made available?

Each of these questions will be considered with special reference to population education. Although there is a logical sequence to these questions, the answer for any one question is dependent in some measure on the answers to the other questions. For example, the steps for implementation of population education depend in part on the level at which the content is introduced and the extent of the changes in the existing content that are necessary.

Each national education system has its own distinctive history, curriculum structure, and interrelationship with national cultural values, and therefore answers to the six questions posed above cannot be given on a universal basis. However, the types of issues and problems associated with each question can be identified and some of the possible answers presented.

Why should population education be considered?

The first question - Why should population education be considered for inclusion in the school curriculum - has two interrelated parts: (1) How significant is population dynamics as a matter of public concern? and (2) How appropriate is the subject for the school system?

Significance of Population

The significance of population changes for current and future economic and social development has come to be understood by government leaders and planners in all parts of the world. With the rapid decline in the death rate, particularly for the new-born and the young children, and with only limited changes if any in the birth rate, the growth of the population in developing countries is taking place at a very high rate. One result of this situation is that the aspiration of people for a better quality of life is being attained at a slow pace in spite of vigorous efforts at economic and social development.

A clear illustration of the problem can be seen in an examination of educational development. For the decade from 1955 to 1965, Unesco reports that the number of young people throughout the world enrolled in schools increased from about 270,000,000 to over 400,000,000. This increase of approximately 50 per cent in a decade is a remarkable tribute to the imaginative and energetic work of professional educators and the public they serve. However, during that period, the increase in the population of school age (5-19) was even greater. As a result the number not enrolled in 1965 was greater than ten years earlier by 30,000,000. Even in South America during this period, where the number enrolled increased by 75 per cent - from 16,000,000 to 28,000,000 - the number not enrolled was 3,500,000 greater at the end of that decade. This pattern in education has continued since 1965.

Similar patterns of development have occurred in other areas of human concern. Increases in the production of food, industrial goods, and consumer goods and services have been absorbed, to a great degree, by the increases in population.

To be sure, many factors besides population growth may play a role in influencing the rate of economic development. In addition, the manner in which goods and services are shared by the various sectors of a nation is a function of the social structure of a society and is not basically a population problem. However, it is clear that the aspirations of large sectors of the population of any particular country for a better quality of life cannot be attained until significant per capita gains are made. Therefore any factor which seriously prevents or delays such gains is a matter of public concern. Rapid population growth is generally recognized as a factor in delaying or preventing the per capita gains necessary to raise living standards. Over 30 developing nations which encompass approximately two-thirds of the people of the world have official government programmes or are sanctioning other efforts designed to effect reduction in the rate of growth. In addition, in a number of countries, especially those in Europe and North America, where birth and death rates have been in closer balance, concern has developed about population in relationship to environmental factors.

In summary, the great importance of population changes for the immediate and long range future of mankind is being increasingly recognized by scholars, public officials, and informed citizens in countries in all regions of the world. Any subject of such great public significance cannot be ignored by professional educators.

The early optimism of many working on population problems concerning the possibility of meeting these problems with new action programmes in a relatively short period of time has given way to the realization that sustained effort over a long period of time will be necessary. In addition, the number of potential conceptors expands each year as new cohorts of young people reach the age of reproduction. The development of educational programmes for young people is now being given serious consideration in many countries as one of the long-range steps.

Appropriateness for School Curriculum

The fact that population changes or any other problem is of great social significance does not necessarily mean that educators will agree that it should receive major attention in the school system. Several factors must be considered: (1) What is the level of knowledge about the problem?; (2) What is the culturally accepted role of the education system in reference to matters of personal or social concern?; and (3) Can the content be presented in such a fashion as to be understood by school-age young people? Each of these problems merits some attention.

Level of knowledge: The knowledge base for the various subject areas in the school curriculum is not a fixed or stable unit. Significant increments in all areas of study are made with great frequency. The potential content of population education involves both the social sciences and the life sciences, and both of these general areas are particularly dynamic at this stage of intellectual development.

There is a large body of knowledge in the field of population on which a responsible curriculum can be built although the depth of the scholarship on particular problems in individual countries varies considerably. The UN and other agencies operating on an international basis have been rapidly facilitating the extension and availability of knowledge in the field. Research and training centres in population were established by the UN a number of years ago in Santiago, Chile, in Bombay, and in Cairo; recently the UN opened regional population offices to facilitate further attention to this field. Population institutes of various types have been established by public or private groups in most Latin American countries as well as in many other countries during the past decade. The work of those groups and of other scholars has provided an adequate knowledge base for the development of a responsible curriculum.

Culturally accepted role of education: The extent to which the educational systems give attention to problems of social significance is essentially a function of national education philosophy and orientation. In most settings, the curriculum is organized around generally accepted academic disciplines such as history, mathematics, and biology. In some countries, the basic personal and social problems serve as an organizing base. From time to time, efforts are made to establish a system in which the interests of the individual learner are paramount so that the school system has no common curriculum.

In practice, education systems are usually characterized by a mix of these three approaches with the traditional academic subject fields serving as the central feature. Even in those settings in which a strong emphasis is given to traditional fields, attention is frequently given to personal and social concerns through appropriate selection of the content within the subject area and through methods of teaching which relate the content to current concerns.

The field of population education can be adapted to any of these three philosophies. For example, the relevant content can be incorporated within the academic subjects of the social and life sciences and can serve as one of the foci of attention for relating such subject matter to issues of personal and social concern.

Suitability for schools: The appropriateness of the content of population education for those of school age should not be considered as a serious problem. It is true that at the present time in many countries systematic study of population dynamics and related matters is largely limited to higher education in fields such as economics, sociology, geography, biology and other life sciences. However, this does not preclude its introduction at the elementary and secondary levels since curriculum specialists frequently draw on bodies of knowledge which are taught in a more comprehensive and complex manner at the higher education level. Fpr population educators the problem is not that of the inherent complexity of the subject matter but rather one of creatively selecting the salient concepts and organizing the approach in a fashion to insure that the young learner sees the significance for himself as a person and as a future citizen.

As the discussion above demonstrates, the answer to the first question is that the problem of population change is one of great significance and is appropriate for inclusion in the school curriculum. This can be achieved whether the curriculum is organized around traditional fields of study or current problems.

Possible content of population education

The second basic question for the curricular innovators follows from the first question: What specific aspects of the proposed new subject area are most appropriate for the school system?

The solution to this question must be worked out by educational specialists for their own educational systems. However, the following elements need to be considered for any new curriculum: (1) The nature of the learner, (2) the distinctive features of the body of knowledge from which the content is to be drawn, (3) the specific outcomes which are desired from the innovation, (4) the qualities possessed by the instructional staff, and (5) the constraints posed by the structural aspects of the school system and its programme. Some brief comments on these elements will illustrate their usefulness for the curriculum specialist concerned about the introduction of population education.

The nature of the learner: A basic point of departure is that the learner is a member of the population and will expect to be a parent someday. He brings to the school a set of attitudes and values concerning such areas as age at marriage, size of his own future family, whether it can be planned, what he thinks of as a large or small family, and perhaps whether unlimited growth of his community and nation is a positive or negative value. His attitudes in some of these areas have a strong affective quality. Systematic research on these problems would of course be of great value in relating the content to the learner.

Characteristics of the relevant bodies of knowledge: The various subject areas in the school curriculum differ in the nature of the content involved. Some content areas are highly developed and some are less well developed. Some are relatively abstract and rely a great deal on symbols and others are much more concrete.

A. Social Science: One of the primary knowledge bases for population education is in the social sciences, and the problems for the social science educator in developing population education are not qualitatively different from those which he faced in building the existing curriculum. In areas such as sociology, economics, political science, anthropology, there is less common agreement among scholars on a large set of basic propositions than in the physical sciences. In addition, personal values play an important role. This may account in part for the fact that social science disciplines are taught less frequently at the school level.

In demography, a relatively large body of empirical data has been developed and organized on a systematic basis. At many points, population factors are basic elements in the content of other social sciences.

B. Mathematics: The basic unit in population analysis is a discrete unit - a person - and mathematical manipulation of these units is a prominent characteristic of population study. Because of this factor, population data are suitable for inclusion in instructional exercises in mathematics. The highly sequential character of instruction in mathematics provides a setting in which increasingly complicated mathematics content can be presented through use of population data.

C. Biology and other life sciences: Biology and related sciences have been moving away from a taxonomic approach in recent years and new ways of organizing the content have been developed. In these new approaches, the problems of human populations have received attention, particularly in relation to animal and plant populations. Human reproduction has been systematically excluded from many school texts in the past but this practice is changing and many new textbooks include this aspect of population education.

D. Ecology: The study of man's relationship to his natural environment is increasingly being recognized - particularly in parts of the world where extensive alteration in the natural environment has taken place - as suitable materials for courses in the life sciences. Population education can be presented as a significant area of ecological study.

E. Family life and sex education: These areas of study have been introduced into the curriculum of schools in some countries. They are usually presented with a problem focus rather

than organized around traditional fields of study. In some circumstances, there may be a good basis for infusing population education into these subject areas if they are a part of the present system.

The goals of population education: The desired outcomes of any innovation are of course a central factor in the selection of the appropriate content. The information, skills, and attitudes to be developed through population education are of two types. On the one hand, the programme should develop an appreciation by the individual of the consequences for his family and society of his own actions and attitudes, and on the other hand it should develop an appreciation of the consequences for the individual of the population changes that are occurring in his community and nation. The individual is both an actor and the recipient of the actions of others.

As a means of identifying the potential areas in which population education might be useful for the individual, some of the actions or decisions of individuals with population consequences are listed. Over the life time of an individual the following aspects of his personal life contribute to the population dynamics of his society: The age at which he marries, the length of time between marriage and the birth of the first child, the age at which each pregnancy occurs (spacing), the total number of children born in or out of wedlock, the extent to which the individual has been successful in avoiding the loss of any children through death, and the inculcation of attitudes in his children concerning factors of the type listed above. In addition to the individual's behaviour within the family, other actions may be taken which are expressions of his role as a citizen. In this category are his responses to community or national proposals for dealing with population issues.

Each of the events or actions listed above occurs as the result of the interplay of many personal and social factors and it is not assumed that population education would necessarily focus on all of these factors. However, the goal of population education is to make the student sufficiently informed so that his actions in these areas would be taken with full awareness of their consequences.

A second type of goal grows out of the individual's need to understand the ways in which he and his family and his nation are influenced by population dynamics. Through population education he can be made aware of the impact of such factors as the growth rate, the age structure, and migration patterns on economic and social development. On a more personal basis he should appreciate the impact of such factors on the access to employment, social service, and amenities for him and his family. He should understand the reasons for migration of rural residents to the cities and the difficulties involved in absorbing the migrants into the institutional life of the cities.

These are a few of the ways in which the individual's life is influenced by the population dynamics of his country. Population education has as its goals the development of an appreciation of these influences as well as basic understanding that will guide him in his own actions that have population consequences. The translation of goals of this type into specific instructional programmes appropriate for students of different levels of maturity is a major task of the curriculum specialist.

The characteristics of the instructional staff: Another factor to be considered in selecting the appropriate content for the school system is the instructional staff. The problem here is twofold: To what extent do teachers have the necessary understanding of the content of population education and to what degree are teachers able to handle content professionally in an area in which their own values and circumstances may be involved?

Since population education is essentially a new content area for schools, the current instructional staff has probably not had professional preparation for this area. As in any new area, adjustments in the pre-service and in-service education of teachers is the usual means for meeting such a need. In this instance, the infusion of population education content into various subjects in the different levels of other education systems makes the preparation of staff a complicated task.

The instructional problem is further complicated by the potential difficulties faced by teachers whose own values concerning population and reproduction may influence their interest in and their capacity to function professionally in this area. This is not a new problem in education and can be met in part through careful training of teachers and provision of instructional aids.

Structure of the education system: The final element to be considered in developing the content of an innovation such as population education is the structure of the school system and its programme. Decisions concerning the content of population education should take into account such factors as the retention rate of students at different levels, the degree of division of labour among the instructional staff, the extent of reliance by teachers on externally prepared instructional materials, the degree of local or central control of the curriculum, and the nature of external examination systems.

Educational changes involved in introducing population education

The third basic question may now be considered: What changes in the existing features of the education system would have to be made to establish the new programme or emphasis on a sound and continuing basis?

As in the consideration of the second question, the answer to this question will vary from country to country, and the answer can best be determined by the professional educators in each country. Two basic propositions underlie this question. (1) Most innovations, including population education, are modification of existing patterns rather than complete changes in the system or something totally new which is being added to a system. (2) The effect that modification in one part of a system has on other parts must be taken into account if the change is to become a permanent part of the system.

Since most school curricula contain some content of relevance for population education, a careful examination of the current syllabi and textbooks is an important first step. The present content can be matched with the desired changes and the extent of the changes necessary can be determined.

Although for many curriculum innovations, models are available which may be adapted to local circumstances, for population education no models have been as yet, fully developed and implemented. Furthermore, most of the planning for population education which is now taking place is based on the assumption that a process of infusion of content into appropriate places in the existing programme of study is the best approach to be used. For that reason, those programmes which are being introduced in one setting may not be directly useful to another education system.

Once the appropriate content of population education has been determined, measures must be taken to insure that it has a continuing place in the system. The nature of the actions taken depend in large part on the special features of that structure. Some of the actions typically necessary are the following: (1) Appropriate modification in the pre-service training of teachers, (2) in-service education of those who are already teaching, (3) work with headmasters, supervisors, and inspectors to insure implementation of the new programme and to provide guides for teachers, (4) inclusion of population education questions in external examinations, and (5) establishment of effective means for feed-back from teachers to facilitate the identification of field problems and to identify creative approaches developed in the field. The mechanisms for instituting these types of actions on a coordinated basis are already present in many ministries of education.

The assessment of the degree of changes in introducing population education will therefore involve attention to both the content of the curriculum and to the supplementary and reenforcing changes in other parts of the education system.

Weighing of positive and negative aspects of change

Following the consideration of factors involved in the development and introduction of population education, the fourth question

can now be posed: Are the expected outcomes commensurate with the investment of time, personnel, and resources that will be required?

The answer to this question has to be based on the critical judgment of experienced professional leaders in each setting. Since population education is a new field, there is only a limited body of experience to which one can refer. Given the time interval between the school years and the time when the consequences of the education can be meaningfully determined, and in view of the variety of factors that may intervene during that period, adequate assessment will be difficult to make. However, this difficulty is not unique to population education. Professional educators are frequently called upon to weigh the positive and negative aspects of existing programmes and new proposals, and this experience can be brought to bear in making this assessment concerning population education.

Strategies in introducing population education

Assuming that the decision has been made to introduce population education, the next question to be considered is: What steps need to be taken in order to introduce the change?

The strategy involved in effecting a change in the curriculum is a function of both the content of the innovation, and the general structure of the education system. For population education, the content poses several problems. This is a new field; it is potentially controversial; trained leadership for this field may not be available; and it is more complicated to infuse content at various places in the curriculum than to introduce discrete self-contained courses.

The general structure of the individual education system is a factor in the determination of the strategies which may be used. For example, the approach used in a highly centralized national system of education will of necessity be different from the strategies involved when control of education is largely at the local level. Similarly, some national systems have an effective research, development, and in-service education mechanism which can be used to develop and introduce population education. Other structural features that will influence the selection of strategies include: (1) the degree of stability of the system, (2) the degree of politicalization, (3) the commitment of the leadership to innovation, and (4) the general morale of the teaching profession.

Although the sequence and timing will have to be determined in the light of local circumstances and resources, the following specific actions should be considered:

(1) Background research: An assessment should be made of scholarly work available concerning the knowledge of and the atti-

tudes toward population and related areas of teachers and students. New research may be required to fill in the major gaps in the state of knowledge.

(2) Survey of existing curriculum and syllabi: A careful review of what is now being taught should be made. This should include attention to both explicit content and to implied value.

(3) Identification of general curriculum reform efforts: If curriculum reform projects are already underway in content areas of the curriculum in which population education might be incorporated, it is important to explore the advantage to be gained in becoming a part of such projects. This is of particular importance if the decision is made to introduce population education by infusion of content in regular courses of study rather than as a self-contained course.

(4) Pilot projects: The use of a pilot project to perfect a new approach before introducing it on a national basis has been a widely accepted practice. This is particularly appropriate for self-contained instructional units since the evaluation process is relatively easier in such circumstances. As noted above, an infusion approach to population education seems to be more appropriate and therefore special adaptation of the pilot project method may be required.

For higher education and for teacher preparation, new courses or extended units in existing courses may be a more efficient approach. In such settings, pilot projects may be an appropriate means for developing and testing instructional materials and methods.

(5) Building public and professional support: Introducing population education is in one sense a technical problem in which such issues as the selection of appropriate materials and the integration of such materials into the curriculum are involved. However, such a change is also a political process. Education leaders and teachers must be convinced that the proposed changes are desirable and feasible. It may also be true that some sectors of the general public will oppose the change unless steps are taken to gain their acceptance and support so a careful assessment of the potential resistance should be made. The steps to take as a result of this assessment depend on the local circumstances. In general, it seems likely that the public will be sceptical of the change if the educational leaders have serious reservations. On the other hand, the building of public support or at least support by influential public leaders may be necessary in some situations to overcome the reluctance of educators to make a change.

The involvement of the professional education organizations may be helpful, not only in building support for changes but also in

assisting in the development of the substantive aspects of the change. For example, in India, the national organization of teachers and the organization of teacher educators have discussed population education in their annual meetings and have sponsored workshops to aid in the development of instructional materials.

(6) Training of professional leadership: Since population education is a new educational field, the availability of professional personnel competent to provide leadership may be a problem. Although consultants may be able to assist in developing the programme, leadership from within the national education system is essential. Specialized training for potential leaders who want to assume responsibility for the new area may be necessary. In general, it is probably better to select personnel who are familiar with and committed to the formal education system and provide them with the necessary supplementary training rather than to select individuals who have background in the substantive field of population but are not experienced in education planning and administration.

The special training referred to need not be thought of only in terms of a formal degree programme in a local or foreign university. Concentrated work for three to six months should be enough time for an experienced educator to develop a high enough level of competence to provide leadership in developing this new field. Visits to a few international centres would facilitate this training process but are not absolutely essential. With this background, further development of competence can be attained after assuming a working position in the Ministry of Education or in another appropriate setting.

(7) Development of a basic reference book: Since much of the scholarly research and writing in the field of population is geared to the specialist, the source materials needed for general education purposes are limited. A basic reference book written for the secondary school level or for use of teachers who are not specialists would be a valuable asset. Such a document would also be very useful for the textbook writer preparing materials for the school level.

A reference book of this type would serve as a means of insuring that the factual materials included in the instructional programme are accurate. Since the effort is an educational one, distortions growing out of bias or ignorance should be guarded against. In the absence of a reliable reference book, there is greater danger that such distortions will occur.

(8) Collaboration with other public and private organization: During the past few years, groups and agencies have been organized in many countries with programmes and interests that are in varying degrees related to the field of population education. In countries where official family planning programmes have been established, the

staffs of such programmes can be a valuable resource. The factors that lead the government to establish a family planning programme are important data for the content of a population education programme.

In many countries, institutes have been established for the scientific study of population and such organizations may be a useful source of materials and of consultants. Similarly, groups working in the area of family life education or sex education may also be of assistance. The reputation and the reliability of such groups would of course need to be carefully assessed.

The eight specific actions identified above have been considered as discrete units. The development of a general strategy for introducing population education requires that decisions be made concerning the types of actions to be taken and the sequence and timing of such actions. At least three general strategies may be identified.

One of these may be referred to as the incremental pattern. Under this pattern, a programme is introduced at a few selected places and then the programme is gradually extended to more and more places. Over a period of time all educational units eventually incorporate the programme into their curriculum.

A second strategy - a system-wide approach - has as its central feature the simultaneous introduction of population education throughout the education system after the necessary preliminary work has been done.

A third strategy can be considered as the sequential approach. Under this approach, the focus of attention is initially on one level in the education system and over a period of time the programme is introduced in sequence up or down the academic ladder. For example, population education might be first introduced at the college level and in teacher education programmes or the point of initial entry could be the elementary level. This latter pattern might be particularly appropriate in educational systems in which the attrition rate is very high in the lower levels of the academic ladder. Although these three strategies have been presented as distinct and simple models, in practice, some combination of the three is more likely to occur.

Regardless of the particular strategy for implementation that is adopted, certain basic steps would have to be taken. A curriculum design and appropriate instructional materials would have to be prepared, official sanction for the programme would have to be secured, teachers would have to be trained, administration support would have to be provided, and some type of evaluation system would have to be instituted.

Availability of resources

The sixth and final question to be considered is: Are the resources needed to effect the introduction of population education available or can they be made available? The basic information necessary for the consideration of this question would have been assembled in large measure in the process of examining the other questions. The resources needed would depend in part on the scope of the programme planned and the strategy of implementation.

However, the basic issue is the level of priority that can be given to population education. At any point in time, educational leaders are faced with the necessity of allocating scarce resources among many different programmes and activities. For example, funds may be used to hire more teachers or to raise the pay level of those already employed rather than to make desirable curriculum reforms. Such decisions are difficult to make but some system of priorities must be established.

For those interested in establishing a population education programme, the task is to insure that the potential contributions of this programme are fully understood by those who have to make the decisions. In addition a careful assessment of the resources needed to introduce the programme will aid the decision makers in determining the level of priority that will be given to population education.

Conclusion

The problems and issues involved in the introduction of population education have been organized under the six basic questions posed at the beginning. Whereever possible, answers have been given which would be generally applicable but for most aspects of the questions, answers will vary with the individual circumstances. At these points, factors to be considered in arriving at the answers for a particular education system have been identified. The presentation should be considered as a guide rather than as a set of final answers. As the body of experience in population education increases, more definitive answers will begin to emerge.

Distribution : Limited

Reproduction Series
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Population Education Documents

POPULATION EDUCATION - A NEW ROLE FOR THE REGION'S SCHOOLS

by John Edlefsen

Population Adviser
to The Colombo Plan Region

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Unesco Regional Office for Education in Asia

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POPULATION EDUCATION - A NEW ROLE FOR THE REGION'S SCHOOLS

As a result of the commendable reduction in neonatal, infant and child mortality in recent years over 45 per cent of the population in many developing countries (in some over 50 per cent) is under 16 years of age. These young people will constitute the major portion of the adult population of the world in the next three crucial decades, i.e. 1970-2000, and their reproductive behaviour will be of central importance to the efforts to control the rate of population growth. Yet in most countries throughout the world this group has received no attention in population limitation programmes.

Attention has been focussed on the sectors of the population now in the reproductive age levels. This priority emphasis is perhaps understandable in the context of the urgent need to effect a reduction in current births and in view of the limited financial and personnel resources available for most family planning programmes.

This emphasis derives also from the fact that until quite recently very few persons concerned with family planning or related programmes ever thought of developing an awareness of the population problem among young people (except in those instances where papers or courses were introduced at the college or university levels).*

Awareness of the problems

Thus children and young people have been informed, if at all, by chance exposure to mass media such as radio programmes, billboards, motion pictures, pamphlets, etc., all of which have been designed to elicit response from adults - the present parent generation. This is not to suggest that similar appeals be made to children and youth. What is suggested is that the world's young people, who will become the parents of the next generation, should be made aware of the magnitude of the population problem and educated to recognize that a small family is not only proper but highly desirable and easily obtainable.

Today's parents have a measure of responsibility in helping achieve these behavioural and value changes and should receive guidance and encouragemen' from responsible governmental officials, preferably through formal adult education programmes, but the prime

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* One of the few who did "speak out" some time ago was Dr. Sloan Wayland of Teachers College, Columbia University. See his article "Family Planning and the School Curriculum", Family Planning and Population Programmes, University of Chicago, 1966, p. 353-362.

responsibility lies with the school systems. By their very nature educational institutions are better equipped to guide and direct attitude formation, while instilling skills and competencies, than are other of man's institutions. The educational systems of an increasing number of nations have made progress in reorienting school curricula away from purely academic subjects and toward a new focus - the functional demands of adult life. But this new focus must be sharpened and carried further so that every young man and young woman becomes an informed, articulate exponent of a rational population policy for his own country and for the world.

This needed "population education" is not to be concerned with "family planning education" and "sex-education", except where age and maturity would make these appropriate. However, upper-level high school students and those in colleges, universities and professional schools do need to know enough about the purpose and resources of local family planning clinics, both public and private, so that they will be anxious to take advantage of such facilities after they are married. Knowledge of the purpose and availability of clinics can be transmitted without teaching about specific contraception methods.

Students in the elementary classes, starting as early as 8 or 9 years of age, can be made to understand the pattern of population growth in their own countries, with particular attention given to birth and death rates and rates of population increase. Then as they progress through the grades, they can be given comparative information for neighbouring countries and a general understanding of world trends. Such factual information could be introduced readily through such existing subjects as geography, civics and history. Arithmetic problems could easily utilize population data. This exposure to population dynamics should also include data regarding food production, preservation and distribution. A word of caution: students should not be overwhelmed in any one year or in any one subject with these population awareness units. On the contrary, this new information should be introduced little by little so as to keep the student's appetite keen for more knowledge regarding population. Thus by the time each boy and girl is ready to graduate from high school each will have an appreciation of his and her roles and responsibilities as consumers and as potential producers in a complex society.

Concomitantly, each student must be helped to gain a basic understanding of the processes of human reproduction. Studies have proved conclusively that all normal boys and girls manifest an interest in these processes at an early age and that they respond favourably when exposed to factual presentations by well trained teachers. The science curriculum is a logical setting for such instruction provided the material introduced fits naturally into the normal sequence and is appropriate for the age and maturity of the students. The upper secondary classes, those 15 to 18

years of age, can then be led into an understanding of health problems associated with pregnancy and child-bearing. The comparative health problems of children born to young and older mothers should be discussed along with the importance of proper spacing between births. Adequate diet, the relationships between malnutrition and disease, personal hygiene, family and community sanitation responsibilities also will logically be part of such units of instruction.

Economic and social consequences

In addition to the instillation of this knowledge and related health values, emphasis needs to be given to the economic and social consequences for a family made up of several children. Students must be made to understand that with a given level of resources and earning power, the larger the family, the smaller the share per child. This has long been true for town and city families but is becoming increasingly true for the majority of farm families, particularly in developing countries, where small holdings become ever smaller generation after generation. With this awareness each student can be taught to apply a similar analysis to his community, his nation and to the world as a whole. Each can then be made to realize what Dr. Hauser so aptly pointed out, that two kinds of global crises confront mankind, each posing major world politico-economic problems.*

Reason for pessimism

The first is the ultimate crisis which will result from the fact that the globe is finite and that living space will be exhausted unless population growth is checked. At this point students need to be disabused of the assumption that migration to other planets can become a feasible alternative to birth control. The nearest star is Alpha Centauri, 4.3 light years away from the earth. Even at an average speed of 7 million miles per hour, a rocket ship would take 350 years to reach the nearest planet outside our own solar system.

But this is a long range problem. In the short run (i.e. up to the year 2000) there is no problem of exhausting the space on this earth but there is abundant reason to be extremely pessimistic about the possibility of greatly increasing the average world level of living during the remainder of the present century. This produces the second global crisis.** The total world product of goods and services in 1960 could have supported approximately 750 million persons at the North American level of living and

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* Philip M. Hauser, "World Population and the War for Men's Minds", in Birth Rate and Birth Right, MacFadden, N.Y., 1963, p. 40 ff.

** Ibid.

about 1.75 billion at the European level. The actual world population in 1960 was fast approaching 3 billion, however, and is now (1971) more than 3.8 billion. Thus it is easy to demonstrate to students that the economic load will become an impossible one for the developing nations if their rates of population increase follow the trends indicate in the United Nations projections.

I do not want to give the impression that nothing of a substantive nature has been done to introduce population education into school systems. Among the commendable efforts are the following:

Japan became the first Colombo Plan nation to initiate a programme of population education. This step was taken in July, 1968 with the release of a revised curriculum for elementary schools which includes population awareness units. A similar revision for lower secondary schools was announced in April, 1969 and the intention is to prepare population education units for the upper secondary schools by April, 1973.

India became the second Colombo Plan nation to officially endorse a national programme of population education. This decision was taken jointly by the Ministries of Education and of Health and Family Planning at a National Seminar held in Bombay during the first week of August, 1969. This action followed much pioneering effort over a considerable period of time by several organizations, most notably the Family Planning Association of India, and by many individuals. The Regional Population Adviser to the Colombo Plan Nations participated in this seminar and presented a paper stressing the urgent need for the development of national population education programmes.

Handbook for teachers

India is now moving to implement the decision taken at Bombay and the National Council of Educational Research and Training has been assigned the principal responsibility for the development of curricula materials. The Central Health Education Bureau is expected to co-ordinate its activities with those of NCERT.

The All India Federation of Educational Associations also is actively supporting the development of population education throughout India. As part of its efforts it sponsored a workshop in Bhopal in May, 1970 that produced a handbook for secondary school teachers. In collaboration with AIFEA the Regional College of Education, Bhopal, sponsored a four day seminar in October at Gwalior in population education for elementary school teachers.

ESSENTIAL CHANGES FOR POPULATION EDUCATION

In February, 1970 the Department of Education of the Philippines committed itself to a national program of population education and proceeded to implement that decision by scheduling a population education workshop which convened in Manila from 11 May to 19 June, 1970. At this workshop, forty experienced principals, school supervisors, teacher co-ordinators and teachers devoted the full six weeks, under supervision, to the development of curricula supplements. These supplements have been reproduced in quantity for introduction in selected schools at the elementary, intermediate and high-school levels throughout the Philippines. The plan is to experiment with the supplements, designed for the biological sciences, the social sciences, health education and home economics, during the school years 1970/71 and 1971/72. Based on that experience revisions and improvementw will be made and the materials will then be printed for distribution to all the schools throughout the nation. Concomitantly, authors of textbooks will be requested to integrate population awareness materials in both revised and new textbooks so that within a few years population education will be an integral part of the curricula. Travel, per diem and incidental expenses for the Manila workshop were funded by the Office of Population Affairs, Colombo Plan Bureau.

Four-week seminar at Tjiloto

Following the example of the Philippines, Indonesia became the fourth Colombo Plan Nation to commit itself to a policy for the development of population education. This decision was taken in April, 1970 and was followed by a four-week seminar which convened at Tjiloto, a hill station near Bogor, during October and November. Some fifty experienced educators and administrators arrived at general policy decisions and developed guidelines and outlines for syllabi for a national program of population education. An interesting feature of this seminar, and a good precedent for other countries to follow, was that several Members of Parliament accepted invitations to participate in the deliberations at the seminar. Travel, per diem and incidental expenses for the Tjiloto seminar were provided by the Office of Population Affairs, Colombo Plan Bureau.

Other interesting developments in the Colombo Plan region are these:

Iran is incorporating population awareness materials in textbooks used in the teaching of geography, social studies, home economics and biology for grades 6 through 12.

Afghanistan is expanding its adult literacy program and plans to utilize population awareness materials as part of this effort.

In Pakistan a curricula revision project is underway which will take into consideration the need for population education materials. At the 1969 annual meeting of the Pakistan Family Planning Association considerable time was given over to a discussion of population education.

In Nepal, as part of a "Science Teaching Enrichment Project" population education materials are being introduced into ten teaching units for grades 6 through 10.

A teaching unit titled "Population as a Social and Economic Factor" is being tried in some 16 schools in Ceylon as a supplement in biology courses at the 8th to 10th year levels.

The Ministry of Education in Malaysia is reviewing a proposal for a national population education program.

In South Korea a proposal for a population education program has been developed by the Central Education Research Institute of the Ministry of Education.

On 7th September, 1970, the Unesco Regional Office for Education in Asia, Bangkok, convened a four-week workshop on population and family education. Colombo Plan nations represented were Afghanistan, India, Indonesia, Iran, Japan, Laos, Malaysia, Nepal, Pakistan, Philippines, Thailand and Vietnam.

These activities and others one could cite should offer encouragement to those concerned with this problem but it is recognized that this appeal for a deliberate and intensive program of population education, utilizing for the most part the existing education systems, will not be easy to implement. In most countries there is no background of experience to call upon and thus no models are available to adapt to local circumstances. Another difficulty is that extensive innovations in education require supportive changes at a number of different parts of the total education system. Among the essential changes needed are these: revised syllabi, revised textbooks, subject matter supplements, modified content of some external examinations, specialized pre-service education of new teachers and improved in-service education for experienced teachers and supervisors.

Whether population education should be achieved through one new course or through infusion into several existing courses, as is being tried in the Philippines, is a decision to be taken by the policy committee.

A logical first step

Special features of the education system of a given country will, of course, influence the character of the program which is developed. Essential changes will obviously be easier to achieve in those countries having a high degree of centralization than in those which leave major control to states or districts. A logical first step would be the creation of a policy committee made up of representatives of the Ministries of Education, of Health and Family Planning and of Finance. This Committee would designate some of its members, along with various resource persons, i.e. curricula specialists, sociologists, demographers, family planning specialists, family life education specialists, etc., as members of a working committee. The working committee would be instructed to get down to the specifics of implementation.

Each country, will, of course, proceed according to the dictates of its own conditions and resources and under the best of circumstances the essential changes will require a number of years to accomplish. But, because of the magnitude of the population problem, no country can afford not to utilize one of its best resources, the school system, in helping solve the problem.

The Office of Population Affairs, Colombo Plan Bureau, is staffed to assist members countries, upon request, in the planning and development of population education programs and in the conducting of workshops designed to develop appropriate educational materials. This office can also assist in the funding of such workshops.

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Reproduction Series
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Population Education Documents

THE SCHOOLS AND POPULATION

by Stephen Viederman

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THE SCHOOLS AND POPULATION

It is likely that schoolbooks in most countries include content that is relevant to an understanding of the causes and consequences of population change. Certainly geography texts around the world have paid some attention to the growth and distribution of human populations. History teachers, too, have shown some interest in the relationship that exists between population size and historical development. But it is only in the recent past -- within the last ten years -- that conscious attention has been paid to the population learning that takes place in the schools.

Since the early 1960's, an increasing number of countries have developed in their family planning programs and in their Ministries of Education formal programs for what has come to be called population education. According to the Population Council, there are today more than twenty countries, representing every world area, developed and developing, that are in some stage of work in this new field.

The goals of population education are generally agreed upon, although the emphases in each of the countries differ. On the macro level, there is the desire to impart to the student knowledge and information concerning population characteristics and the causes and consequences of population change so that the student will better understand the effect of these characteristics and processes on a wide range of public policies, and so that he might also gain an understanding of the effect of public policy on the population issue. Thus, there is the desire to create an informed citizenry capable of making responsible decisions with regard to population policy matters.

On the micro level, the goals of population education are usually stated in terms of developing responsible fertility behavior, as might be defined by the norms and needs of the particular society. In India, for example, it has been suggested that if family planning is to become a way of life, it must become a part of the general education of the child in preparation for his adult life.

Although population education has developed more often in countries that have an official anti-natalist population policy, it would be a mistake to assume that population education, per se, is or should be anti-natalist. Population education is as relevant for countries that perceive a need for more rather than fewer people -- for whatever reasons -- as it is for those countries that acknowledge a population problem. Both India and Chile have population education programs, even though the latter does not have an official population policy. We are dealing with education, and not indoctrination and propagandizing.

Population education should view population not as a problem to be solved, but rather as a phenomenon to be understood. This understanding will provide the basis for perceiving when and if the country has population problems, what the nature and the dimensions of the problems might be, and for planning and obtaining support for whatever policies might be necessary in order to deal with the problems, once defined.

Population study involves introducing into the curriculum information concerning population characteristics and the causes and consequences of population change. This implies much more than simply a study of births, deaths, migration, and growth rates. Among other things, it includes an attempt to develop an understanding of a wide range of social phenomena that are closely linked with and affected by population, such as urbanization and the role and status of women. Furthermore, since all demographic processes stem from the behavior of individuals, population study also attempts to elucidate the social and psychological bases for this behavior.

Population awareness education differs from sex education and family life education, where the focus is primarily on the individual, in that it views the individual in the context of the broader society, relating his actions to this larger concern.

Population education programs should discuss the advantages and disadvantages of the two-child family, but should not advocate a preference. The advantages of urbanization should be explored against the backdrop of problems created by the conglomeration of people and their demands and desires. The role and status of men and women and children should be explored in order to understand the widest possible ramifications of changes in population policy. By including what might be considered more formal demographic learning, the student should also develop an awareness of the nature of population growth and an understanding of why and how decisions made today have an impact many years in the future. By infusing information about these subjects throughout the school curriculum, wherever relevant, the student will be in a position to explore his own feelings and value structure with reference to the multitude of issues that are involved. Hopefully, this increased awareness will result in responsible behavior in his future roles as both citizen and parent.

If we accept the importance and validity of introducing population education, we are then faced with the problem of bringing about change in the educational system. One of the problems in international studies programs, for example, has been to give the student a feeling for and a sensitivity to other cultures. All too often, however, the programs have been tours of exotica. Emphasis has been placed either on one culture region, to the exclusion of

all others, or on a very broad survey of world cultures, giving too little attention to any one. If the goal is to give the student an insight into how others view the world, neither approach seems to suffice. By making population study the focus of international studies programs, the student will be encouraged to understand the wide range of similarities and differences that exist in the world and the varying roles that politics, economics, culture, society, and religion play in the shaping of policies, attitudes, and actions both at the level of the individual and at the societal level.

Another task that faces the school is to encourage and assist the student to synthesize what he has learned, and to apply that knowledge and understanding to the real world in which he lives. Study of the impact of a zero rate of population growth on the society and economy of the United States offers a wide range of opportunities for the student to try to predict, and -- hopefully -- as a result, prepare for the future. In the past, age pyramids -- at least for the ages included in the labor force -- have tended to mirror the organization and patterns of upward industrial mobility and much of society. When that age pyramid begins to approximate a rectangle, as a result of a zero growth rate, what changes will have to take place within the society as a whole? And what changes may be necessary or inevitable when economic growth, which has been predicated at least in part on population growth, can no longer rely on that factor? Solutions to problems arising from a zero growth rate will not be found easily, but the student's search for understanding may help to give relevance and meaning to much else that he has been taught.

When we consider the possibility of infusing population-related concepts throughout the school curriculum, we soon realize that virtually no area of human knowledge covered by the curriculum is excluded. Some brief examples will suffice.

In art courses, an aesthetic of space could be related to a discussion of population.

Information concerning balanced and unbalanced human and animal populations, and the ecology of population can be discussed with great relevance in biology courses.

Various mathematical concepts could be illustrated through the use of population data. Concepts of numerical size -- hundreds, thousands, millions, and billions -- could be taught using population data. The concept of compound interest could be learned as well from a study of population growth rates as from any other data.

Clearly the social studies offer a particularly fruitful area for population learning. The growth of world population can be traced, and the factors that affected that growth discussed, for their historical and contemporary relevance. Differences in belief systems -- whether religious, political, or social -- could be reviewed with reference to their stands on the origins and consequences of rapid population change. Students might be encouraged to study population as a local phenomenon -- taking a census of the community, learning of past growth and projections for the future, including among other things the need for new or expanded educational and health facilities, transportation, and housing. This would demonstrate the difficulty of collecting data, the cautions with which one must approach the analysis of data, and would at the same time make the study of population a more personal and more relevant study.

It is clear that the opportunities for developing relevant materials for inclusion in the curriculum are many. Only hard work and imagination are needed.

As with any educational change it is important that there be a reasonably broad base of support. The movers in this field have found the workshop/seminar approach fruitful to expose and refine their ideas, and to motivate others to join with them.

Research and program evaluation should be included as part of the development of a national program from the very beginning. Knowledge of the nature of population learning and the developmental stages of population learning are obviously of the greatest importance to teachers and curriculum developers. Similarly, it is of considerable importance to know as the program begins what are the students' and teachers' knowledge of and attitudes toward population matters. These data are not only valuable to the curricular planner; they also serve as a baseline for purposes of evaluation.

One criticism of population education programs concerns the bases upon which individuals make decisions about their fertility behavior. Does the perception of a population problem in the aggregate appear to influence the number of children desired by a couple? Recent research suggests that it does not. But population education programs have broader goals than simply changes in fertility behavior. Furthermore, the more general understanding of population characteristics and processes may, in the long run, lead to a change in societal norms that might ultimately account for smaller families.

Probably the most important criticism of population education programs through the formal school system relates to the astronomical

dropout rates in the schools of most of the developing world. In Colombia, for example, almost half of the children entering grade one do not return to grade two, and only three of every 1,000 boys and one of every 100 girls entering school complete the full 12 years of primary and secondary education. This criticism would be valid if the content of population education programs were made available to youth only through the school system of the country. Fortunately, in most countries there is a strong awareness of the problem and of the need for broader programs to reach non-school youth. Thus elements of population education are being included in functional literacy programs, in programs for soldiers, and in programs for industrial workers. The interest in the school can be justified by the fact that the educational system already exists, that the costs of introducing population content into the system are relatively small, and that the people who are maintained in the system for any period of time are likely to occupy important positions in the country when they reach adulthood by virtue of their having been retained by the system. Consequently, their population learning may have multiplier effects.

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Population Education Documents

ETHICS, POPULATION POLICY, AND POPULATION EDUCATION

by Robert M. Veatch

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ETHICS, POPULATION POLICY, AND POPULATION EDUCATION

POPULATION LIMITATION: fundamental to the survival of the world, yet potentially genocidal; a "basic human right" according to the United Nations, yet potentially coercive; required for us to be fair with our fellowman, yet potentially outrageously unjust.

If population education is to be carried out responsibly in the schools, it will have to come to grips with the great ethical issues underlying the choices which must be made. Each of the proposals for a population policy--those currently being considered by the Presidential Commission on Population Growth and the American Future and by other governments and voluntary agencies throughout the world--has major ethical implications. 1/

Some of the ethical problems are obvious: placing anti-fertility drugs in the water supply or compulsory sterilization of women (or men) after they have had two children would rather limit individual freedom; restricting Medicaid to only two children is unhealthy and unjust for some very innocent new inhabitants of our finite globe. Assuming these ethical issues will be brought out in any discussion of the ethics of population policies, I shall focus on just three specific examples of the ethical complexities growing out of three major values in our tradition. Following this a few words about the ethics of teaching population ethics will be in order.

1/ The final report of the Commission on Population Growth and the American Future should be available in March of 1972. This will serve as a basic resource document for study of American Population Policy for some time to come. As a basis for this report, several policy studies were commissioned, including two focusing on the ethical norms and values which must serve as a basis for an American Population Policy. See Ethics, Population and the American Tradition. (Hastings, N.Y.: Institute of Society, Ethics and the Life Sciences, 1971, 3 vols.) Good reviews of population policy proposals, including some discussion of the ethical implications, appear in Bernard Berelson, "Beyond Family Planning," Studies in Family Planning, Population Council, No. 38 (February 1969), pp. 1-16, and the paperback edited by Daniel Callahan, The American Population Debate (Garden City, N.Y.: Doubleday, 1971), especially the article by Robin Elliott, Lynn C. Landman, Richard Lincoln, and Theodore Tsuruoka, "U.S. Population Growth and Family Planning: A Review of the Literature," pp. 185-226.

THREE ETHICAL DIMENSIONS IN POPULATION POLICIES

1. Human Freedom vs Manipulative Social Planning

When the United Nations Declaration on Population affirmed "that the opportunity to decide the number and spacing of children is a basic human right" the family planning movement around the world saw it as a great victory for individual human freedom. Freedom of choice will be one of the cornerstones of any acceptable population policy. Among the "voluntaristic" policies currently receiving major attention are: (a) providing readily available birth control information and materials for all who desire it (including overcoming any psychological and economic obstacles to use), (b) increasing freedom of choice for sterilization and abortion, (c) making basic social structural changes in society in ways which will achieve demographic goals, and (d) expanding educational efforts to include the ecological and demographic impact of population growth as well as providing information about control of conception.

While freedom is a fundamental value in our society, making pure and unlimited freedom the sole criterion of a population policy would raise some complex problems. Some practices, for example, which could decrease population growth and could be defended on the grounds of freedom of choice, are just not morally acceptable. For some this includes abortion, sterilization, and even conventional birth control. Many more would reject the freedom of choice of birth control for unmarried minors or to commit infanticide. Under what conditions is freedom of choice unacceptable?

Freedom mandates voluntary family planning which will potentially eliminate unwanted births in our society, but which will also produce wanted births. It remains to be seen whether limiting births to those which are wanted will lower population growth rates sufficiently on either the world or national level.[2/]

2/ According to a recently published study, 17 percent of all births occurring between 1960 and 1965 were reported as unwanted by both spouses. If unwanted births had been eliminated in the group of women who are near enough to the end of their child-bearing years for completed family size to be known, that size would have dropped from 3.0 to 2.5 children per family. This is a substantial drop; but particularly when one realizes that many couples want children they cannot have because of infertility and that rapid advances are being made in eliminating infertility, it is evident that preventing unwanted births may not be sufficient to stabilize population. Since 1965 fertility rates have dropped so that women are now having children such that completed families will have somewhat fewer than 2.5 children. Whether this figure will continue to decline or will increase again following a cyclical pattern is unknown. See Larry Bumpass and Charles F. Westoff, "The 'Perfect Contraceptive' Population," Science 169 (September 1970), pp. 1172-1182.

This depends upon the empirical question of how many children people desire as well as the more complex question of what is "sufficient." It would be a worthwhile classroom project to make a list of the goals of a population policy and note how different goals will lead to different notions of "sufficient." Freedom to enjoy natural forest land, for instance, may directly contradict the goal of freedom from overcrowded urban ghetto living (which could lead to population redistribution programs and building of new cities) may contradict the goal of preserving forests and recreational space. Freedom for the present generation may greatly limit the freedom of future generations. The fact is that one man's freedom may be another man's limitation.

Even beyond these cases where we are not sure we want complete freedom because it conflicts with some other values, and when freedom to do one thing conflicts with freedom to do another, there are some cases where it is not clear whether freedom is enhanced or restricted. Kingsley Davis,3/ Judith Blake,4/ and others have suggested that one of the most effective means of reducing population growth is to actively promote social conditions which will lead to small families. Social scientists know that many social conditions are closely related to the size of family. Social changes which might bring about smaller families include movement of women into the labor force, creating alternative life-styles with less emphasis on the family, and other interests of the feminist movement; improving educational and vocational opportunities for all; providing better health care, especially for those where fear of mortality can lead to having children "for insurance"; creating opportunities for economic advancement and development, and developing better systems of social security for old age. Especially in a social studies class, it would be interesting to develop a more detailed list of the social and psychological conditions which have an impact on family size. 5/

3/ Kingsley Davis, "Population Policy: Will Current Programs Succeed?", Science 158 (November 10, 1967) pp. 730-739.

4/ Judith Blake, "Demographic Science and the Redirection of Population Policy," in Public Health and Population Change ed. by M.C. Sheps and J.C. Ridley (Pittsburgh: University of Pittsburgh Press, 1965), p. 62.

5/ See Edward Pohlman, Psychology of Birth Planning (Cambridge: Schenkman, 1969).

Now it is clear that most of these proposals will be seen as socially beneficial in their own right. Some are advocated independently of their population effects. Yet the question must be asked: At what point does advocating such changes for demographic purposes become manipulative? At what point does encouraging social change slide from the enhancement of social freedom to the manipulation of social behavior? Knowing what we do about the power of psycho-social pressures, how are such programs ethically different from physical coercion? This must be asked, especially when such changes are advocated for demographic purposes in places where there is local resistance to more conventional population limitation programs--i.e., in countries where there are religious and cultural objections to family planning, and in communities within this country such as black communities--and when the motives for the programs are not made clear to the public.

2. Human Survival vs. Racial Genocide

The prophets of demographic doom warn that the survival of the planet--the ecological balance of life and the continued existence of human life--depends upon curbing population growth. The survival of the human species and the obligation of man to live in harmony with the rest of the world are very potent moral claims. We must recognize that actual physical destruction of the planet or of the human species is not foreseen in the next generation or so. We must also face the reality that much of the pollution, natural resource consumption, and starvation which do exist currently could be ameliorated by forceful pollution control laws, changes in materialistic consumption-oriented values, and redistribution of our food and other resources. But even if we grant all of this, it is still very clear that unless population growth is curbed (by changes in individual desire, by the impact of Malthus's war, pestilence, and starvation, or by new population policies) actual physical survival will be at stake. Long before that, the quality of human life will be jeopardized.

Yet many of the harshest critics of restrictive and even voluntary population policies are also interested in survival--survival with a somewhat different focus. Dick Gregory says in an article in Ebony, "My answer to genocide, quite simply, is eight black kids--and another baby on the way." ". . . one of the definitions of genocide is 'imposing measures intended to prevent births within the group'--that is, forcing birth control measures upon black folks. There is ample evidence that government programs designed for poor black folks emphasize birth control and abortion availability, both measures obviously designed to limit the black population." 6/

6/ Dick Gregory, "My Answer to Genocide," Ebony (October 1971), pp. 66-72.

Dick Gregory is concerned, not primarily about survival of the species, but about survival of a particular group--a group which has been oppressed and exterminated in such proportions that genocide is an appropriate term. He is concerned not only with survival in the physical sense, but with survival of a culture, a heritage, and an identity as well. Survival as a value applies not only to a planet and a species, but to an ethnic group, a community, and an individual as well. The competing claims of these different entities require that we ask the ethical question: Survival of whom? How does one reconcile the competing claims of an individual, a family, a nation, an ethnic group, a species, or the entire order of nature?

Dr. Charles V. Willie, a Black who is the highly respected professor and chairman of the Department of Sociology at Syracuse University, told the Commission on Population Growth and the American Future that the black community's concern about genocide must be taken seriously. He said:

> I must state categorically that many people in the black community are deeply suspicious of any family planning program initiated by whites. You probably have heard about but not taken seriously the call by some male-dominated black militant groups for females to eschew the use of contraceptives because they are pushed in the black community as "a method of exterminating black people." While black females often take a different view about contraceptives from their male militant companions, they too are concerned about the possibility of black genocide in America.
>
> The genocidal charge is neither "absurd" nor "hollow" as some whites have contended. Neither is it limited to residents of the ghetto, whether they be low-income black militants or middle-aged black moderates. Indeed my studies of black students at white colleges indicate that young educated blacks fear black genocide. 7/

A recent study, in looking at the views of blacks age 30 and younger (those who will have the greatest impact on population), found that 29 percent of the males and 5 percent of the females held that "All forms of birth control are designed to eliminate

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7/ Charles V. Willie, "Perspectives from the Black Community: A Position Paper," PRB Selection No. 37 (June 1971), pp. 1-2.

black Americans."8/ Yet 73 and 59 percent respectively thought "Birth control projects are aimed at the low-income population" and 43 and 38 percent felt that "The survival of black people depends on ever-increasing numbers of black births," and 78 and 72 percent agreed that "Black-operated clinics will be more acceptable to blacks than white-operated clinics." 9/

What is the appropriate public policy in the light of these complexities? Naomi Gray, a black family planning expert in New York City, has offered one answer to the question "What do blacks want?" which is worthy of serious classroom discussion. Testifying before the Population Commission she said:

> Many Blacks in this country want to be left alone at this point. They are tired of being dragged along behind white movements which are irrelevant or detrimental to their interests, or used for attention-getting devices where whites cannot get recognition for white problems. And, since what few white liberal forces which were left after the "backlash" have gone traipsing off after daisies and low-phosphate detergents, Blacks see a chance to act upon the self-determination that we have long been opting for, and which has not so far come through integration. If this could be achieved, I am certain that family planning would be among the things that Blacks would want for their communities, but probably for improved health and family stability for a long time to come before size limitation becomes a concern. But I must reiterate that as long as family planning programs are controlled by white interests, then the charges of genocide will continue to be raised and will operate to make these programs a very tenuous entity in any aware Black community. The only population control that I see Blacks being interested in is the control of the white population which threatens to use up all of the resources in both the white and the nonwhite worlds. 10/

8/ William A. Darity, Castellano B. Turner, and H. Jean Thiebaux, "Race Consciousness and Fears of Black Genocide as Barriers to Family Planning," PRB Selection No. 37 (June 1971), p. 7.

9/ Ibid., pp. 7 and 10.

10/ Naomi Gray, "Testimony to the Commission on Population Growth and the American Future--April 15, 1971," Washington, D.C.

3. Justice: Who Should Have the Children?

The claim of oppressed groups for special consideration is what philosophers would call the argument for compensatory justice. This leads to a broader discussion of what constitutes a just population policy. Programs which would offer some reward for not having children, or impose a fee or penalty for having children, illustrate the problems of creating a just population program. Positive incentives proposed have included flat cash grants for a given period (say a year) for not having a child or offering some material reward such as a transistor radio for men who have a vasectomy. A flat fee or tax for having a child might have a similar effect. In fact it has been suggested that allowing tax deductions for each child has exactly the opposite "pronatalist" effect.

Who will be affected by such proposals? Presumably those who can be most easily enticed by the rewards and penalties. And herein lies the ethical dilemma. Do these plans enhance the freedom of individuals by creating choices which have not previously been open--getting money or goods for not having children? Or do they become manipulative and unjust by putting pressures on some while others will be unaffected by the same incentives? If flat rate rewards and penalties put the most pressure on the poor, can they be considered just? Some will argue that couples should only have the number of children they have the ability and the resources to support. They say it is only fair that a population program limit the childbearing of those who will put a drain on society by having children. A flat tax or incentive would probably do just that. But how is "drain" to be defined? The poor may "drain" society by adding to the welfare rolls, but the rich may "drain" society by increased consumption of resources and increased environmental deterioration.

Others, however, argue that children are too fundamental to people to be limited to those groups in society which are particularly well off. It is only fair, they say, that every person have a right to at least a certain minimal number of children. This conception of what is just gives rise to program proposals which apply economic pressure and moral suasion to limit family size to about two children per family (2.1 children per family on the average would eventually lead to a stationary population in this country). There are some problems with this position though. It could place psychological blame and guilt on the couples who have more than two children, whether they choose to or not, and on the children themselves. It may do harm to the children born. It implies that the two-child family is socially better, when such evidence is actually hard to come by. (A study would be a productive undertaking.) It may be that some no-child or one-child and some three- or four-child families would be preferable. Population geneticists are concerned

that if every family had two children it would stabilize the gene pool. Finally, pressures for every family having two children would place great burdens on some families while virtually none on others--in spite of the fact that many who are most concerned about population growth are those who want small families anyway. An alternative to the universal two-child family which must be considered is an average two-child family. This might come about by creating moral pressure for all couples to lower their planned family size a little. Or more systematically if fees or penalties are to be imposed, it may be possible to create them with the objective of placing the burden more equally on everyone.

One thing is clear: any population policy will consciously or unconsciously decide who will get the children. The policy will determine whether (a) children should go equally to every couple, (b) children should go to those with the ability to support them, or (c) everyone should make a little sacrifice for what is seen as the common good.

THE ETHICS OF TEACHING POPULATION ETHICS

One of the most attractive and forcefully advocated programs for affecting population growth is one which directly involves teachers. It is clear that present education about population growth and distribution is dreadfully inadequate. 11/ Proposals to remedy this have included improving sex education, increasing knowledge of birth control techniques, elevating awareness of population growth and its impact on society, exploring values which lead to behavior affecting population, and attempting to directly change the values of citizens so that they will behave in what is considered a "demographically and ecologically responsible manner."

It is critical that educational programs which "present the facts" be separated from efforts which attempt to generate new value commitments on the part of the student. Teaching someone that having more than two children is wrong is very different from teaching that the American population is currently growing at the rate of 1.1 percent per year. This is not to say that there are no ethical questions when one is "just communicating facts." There are. What are some ethical considerations in each type of population education?

11/ See Stephen Viederman, "Population Education in the United States: A Report to the Commission on Population Growth and the American Future." Population Council, Oct. 1971.

1. Education Which Tries to Present Facts.

The first ethical issue encountered in trying to present facts is that, quite simply, many facts carry moral baggage. Presenting the facts of the techniques of contraception may be seen, at least, as publicly failing to consider the morality of their use. Telling which corner drugstore sells contraceptives with no questions asked is certain to stir moral debate in spite of the fact that the information is an empirical description of reality. Some knowledge which is purely descriptive cannot be revealed without making a moral judgment. Revealing the location of comrades behind enemy lines during a war is a morally questionable statement of fact. For some, revealing the location of contraceptive supplies is no less heinous a moral offense. While much knowledge is to be viewed as beneficial and there should always be a moral obligation to tend to reveal information--other things being equal--never let it be said that in all cases communicating factual information is a morally neutral event.

A second ethical problem arises in educational programs which try to present facts; it is even more complex. No matter how much effort is made to be unbiased or "objective" in selecting facts for presentation to a class, some selection must be made. That selection must be based on what is thought to be important. An example will illustrate. A class should be informed about the rate at which children are being born. It can be shown that the average family had 3.7 children in 1957. The rate declined steadily until in 1969 there were about 2.4 children per family. These "facts" imply that if there is a population problem in the United States, it is receding rapidly. In fact, some have expressed concern that within the United States, population will actually begin to decrease if the trend continues.

Yet one presenting this information to a class might choose to present more. It could be shown that prior to 1957 the rate had increased steadily from a low point in the 1930's and that the rate has followed a cyclical pattern for a long time. This more alarmist perspective could be heightened by emphasizing that in 1970, for the first time since 1957, this rate increased slightly. The fact that thus far in 1971 the rate seems to have dropped again confuses the picture even more. The problem is that in choosing which facts to present and which facts to emphasize, we must make value choices--the "important" material will be selected. There is no way of avoiding this selectivity even when every effort is made to avoid consciously biasing the information presented.

Selection of material to be presented in population education will also depend upon what is perceived as "the population problem."

One teacher will emphasize the environmental damage resulting in part from population growth; another will emphasize a potential long-range eco-catastrophe. I have found both of these perspectives to be particularly prevalent among biology teachers. It is natural that their interest would lead them to focus upon the impact of population growth on the natural environment. Social scientists, on the other hand, may emphasize the impact of population on man's social relationships, on urban crowding and on social conditions. It would be interesting for a social scientist and a biologist to arrange to teach population as a team with each emphasizing the issues he sees as critical.

2. Teaching New Values

Teaching students to appreciate and adopt a new set of values--teaching man to live in harmony with his environment, to contribute to the common welfare by making individual sacrifices where necessary, and to adopt a life-style where material consumption is de-emphasized--introduces a new dimension with a new set of ethical issues. At this point the educational system would be asked to move to the most fundamental level, inducing basic changes in the lives of individual students, rather than letting them flow more spontaneously from student decisions based upon broader exploration of many sets of values. When this is undertaken, it must always be with fear and trembling. This is not to say that the public educational system has not in the past nor is never in the future to engage in value education. Citizenship training has always been one of the primary objectives of a public educational system. Yet it is not an enterprise which can be undertaken casually. There are great dangers in asking the individual teacher to initiate value re-education programs--dangers which could easily lead to manipulation and dehumanization of the student.

Ethics, Population Policy, and Population Education

Recently I saw a film based on Garrett Hardin's "Tragedy of the Commons." It was made for high school audiences and designed to instill a new set of values in the student. It pointed to the dangers of continued population growth and conveyed very clearly the message that the view of man as an urban technological controller of his environment was to be rejected in favor of a man who returns to a simpler life communing with and living in harmony with nature. Those seeing the film, all of whom had long experience in studying population, were aroused by the film. Some saw it as an ideal film for teaching a new and more humane set of values to high school students. Others were not as pleased. While they were concerned

with population growth, and advocated developing new values which would lead to more responsible demographic behavior, they were outraged at the values that had been presented to them. They argued that responsible population policy does not require romanticizing nature at the expense of the joys of urban living. In short, they would have preferred a different set of values.

This kind of problem will always arise when value indoctrination is undertaken in a setting where there is not a clear consensus on the values to be taught. In an audience which is not prepared to discuss and debate the values issues at stake, the teaching can verge on the manipulative. Perhaps what is required, if such education is undertaken at all, is the greatest sensitivity on the part of the teacher so he will perceive that he is engaged in value retraining. But a more sound approach is the exploration of alternative value systems in an atmosphere which permits the maximum discussion of the issues which are at stake.

Population policy is public policy--whether we realize it consciously or not--and we cannot talk about public policy without talking ethics. Deciding public policy is deciding what should be done--including what is morally required--to protect the freedom of the individual, to promote the general welfare and survival of the society, and to promote justice. Of course, public policies do not always meet these norms; they may be directly contrary to them, but few will doubt that this is what public policy should be.