ASIAN POPULATION STUDIES SERIES NO. 82

Population and Development: Frameworks for Research and Planning

REPORT OF THE WORKSHOP ON AN ANALYTICAL FRAMEWORK FOR POPULATION AND DEVELOPMENT RESEARCH AND PLANNING

Bangkok, Thailand
16-20 February 1987

ECONOMIC AND SOCIAL COMMISSION FOR ASIA AND THE PACIFIC
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Part One

REPORT OF THE WORKSHOP

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A. Background

1. The Workshop on an Analytical Framework for Population and Development Research and Planning is a part of the ESCAP Population Division's project on Development of Analytical Framework for Population and Development Research and Planning with financial support from the United Nations Population Fund (UNFPA). The conceptual framework of the project is more or less the same as the Population Council project involving the preparation of country reports on population and development. Specifically, the ESCAP project aims at providing, for individual national entities, up-to-date and scientifically sound descriptions, analyses and interpretations of significant population and development trends and their interrelationships, and assessments of the implications of these trends and relationships for the formulation and improvement of public policy. The background and justification of the project can be elaborated as follows.

2. Integration of population and development has been a topic of concern to countries in the ESCAP region for more than a decade. Nevertheless, the extent to which population factors are integrated into development planning has been limited. At the fourth session of the ESCAP Committee on Population in 1985, it was argued that the lack of appropriate mechanisms for integration was one of the major constraints and that a necessary condition for the integration of population and development planning was that an agency or a unit responsible for planning and co-ordinating the integration process must exist.

3. It may be put forward here that the existence of such a government population authority is not a sufficient condition, especially if the unit as such is not effective. And there could be many reasons why such a unit may be ineffective. A major reason for slow progress in integration is, on the one hand, the lack of useful and ready-to-use scientific information in the areas of population and development for responsible planners and, on the other hand, the lack of analytical frameworks for concerned researchers and responsible planners to identify the crucial information that should be readily available. Research, especially quality research, takes time. Thus, a synthesis of research findings and an analytical framework to plan for research in these areas need to be emphasized as well as developed.

4. In many countries in the ESCAP region, the availability and quality of demographic data have significantly improved in recent years. Studies on the determinants and consequences of demographic trends have likewise accumulated during the past two decades. The results of these studies are found in various technical journals, monographs and unpublished reports which are often not readily useful to policy makers and planners in their current form. First, the highly technical style of most research reports may render them unreadable to the average policy maker or planner. Second, research studies on a particular topic may vary in quality and, hence, the level of confidence to be attached to

their findings. Policy makers and planners may not always be in a position to judge the quality of the research based on scientific standards. Third, research results come in discrete units, and sometimes in contradictory form. Policy makers and planners may not always be in a position to assess conflicting results unless these are placed in the context of the larger pool of knowledge on the subject. Some "processing" of information is, therefore, needed to make the results of research readily useful for decision-making. The analytical framework derived from such "processing" will be of great use not only to planners and policy makers but also to researchers in this field.

5. If the decisions to be made involve only fine-tuning of specific policies and programmes, the usual scheme for research dissemination, for example, research abstracts, memoranda, and seminars/workshops, might be adequate to enable the findings of the relevant research to be brought to bear on the problem. However, when the policy decisions to be made are broader in scope, as in cases involving long-term perspective planning, there is a need to process information on a correspondingly broader scale to serve policy makers and planners. More concretely, there is a need for up-to-date critical analysis and synthesis of available information at the country level on significant population and development trends and their interrelationships, and an assessment of their implications for the formulation and improvement of public policy and programmes.

6. The ESCAP Population Division has recently completed two major projects, each resulting in the preparation of country monographs for selected countries. The Country Monograph Series project has produced for each of 15 countries a valuable description of trends in fertility, mortality and migration and overall population growth; relationships between population and such sectoral concerns as education, health, housing, food and nutrition, and manpower and employment; and population policies and programmes.

7. Other recently-completed monographs under the project on the "Comparative study on migration, urbanization and development in the ESCAP region" have likewise produced for each of six countries or areas interesting descriptions of the patterns and types of population mobility; characteristics of migrants; levels, trends and patterns of urbanization and population redistribution policies.

8. Earlier country monographs had also been prepared for countries in the region by the Committee for International Co-operation of National Research in Demography (CICRED) in connection with the World Population Conference in 1974. These monographs provided a description of demographic levels and trends and of population policies and programmes.

9. This project goes beyond descriptions of levels, trends and determinants of demographic variables. It emphasizes the analysis and synthesis of existing data and results of studies with a view to: (a) providing policy makers and planners with a concise report that addresses key country concerns in the areas of population and development; and (b) providing concerned researchers as well

as planners with an analytical framework for the identification of research priorities in these areas.

10. The need for syntheses of population and development research findings was discussed as early as 1977 in the Workshop on Country Reports on Population and Development held in Norway and sponsored by the Population Council. In the ESCAP region, a similar workshop, also sponsored by the Population Council, was held in Thailand in 1980. To date, several population and status reports or syntheses have been prepared, mainly by the staff of the Center for Policy Studies of the Population Council. These include the studies by Arthur and McNicoll for Bangladesh (1978), and by Lieberman for Iran (1979), and Afghanistan (1980). In the Thailand workshop, one participant noted that country reports that were then available were all written by international experts rather than by country experts, except in one case, the Republic of Korea. Therefore, the workshop participants recommended that, as far as possible, country experts should be tapped for the preparation of such reports so that closer interaction with policy makers and planners within countries could be made. Unfortunately, little is known about the follow-up activities of this workshop.

11. The group took note of the ASEAN Population Programme's three-year project aimed at preparing such country synthesized reports. The present project aims to complement this previous effort.

12. With regard to the development of an analytical framework, the Inter-agency Task Force on Population and Development was organized in 1977 by the ACC Sub-Committee on Population to enhance the harmonization of the United Nations work programme in the areas of population-development inter-relationships and their modelling. Much of the work of the Task Force was devoted to the preparation of an analytical chart, or "mapping", as a systems approach to identifying the main population-development interrelations. It was based on and guided by an initial specification of as many development objectives, broadly defined, as could be identified by the Task Force. The analytical mapping had been computerized with a view to facilitating further applications by interested users. The report of the mapping was published by the United Nations in 1981.

13. For this project, four countries were selected for investigation: Bangladesh, Nepal, the Philippines and Thailand. These countries were selected primarily on the grounds that they are at different stages of integrating population and development activities and research. A comparative analysis will provide a better understanding of the current population-development research activities and the future needs in these countries. This would also help in developing appropriate analytical frameworks for undertaking research activities in the future.

14. Aside from the above-mentioned justifications, the report of the project could also serve the following purposes:

(a) Enhancing social consciousness of existing population and development trends and their implications;

(b) Providing relevant background facts and analytical findings for the general public, and otherwise informing public debate about population policy;

(c) Identifying key gaps in knowledge, and hence helping establish priorities in research and data-gathering efforts;

(d) Facilitating international exchange and comparison of findings on population and development relationships;

(e) Contributing to the development of improved theoretical and analytical tools for investigation of population and development relationships and consequent policy choices.

B. Objectives

15. The long-range objective of the project is to provide systematic information, based on research findings, about significant population-development interrelationships as a basis for the more effective integration of population and development planning by the ESCAP members and associate members.

16. The immediate objectives are to: (1) analyse and synthesize existing research findings and literature on population and development for the formulation and improvement of public policy and programmes: this could enable policy makers to draw the lessons from research activities which are to be integrated into development planning; and (2) develop analytical frameworks which would set research priorities and provide guidelines for future research undertaking in this field.

17. The objective of the Workshop was to review and discuss the research methodology and guidelines or study design for country studies.

C. Organization of the workshop

18. The Workshop was convened as a part of the project. The participants in the Workshop were prospective study directors from Bangladesh, Nepal, the Philippines and Thailand, representatives of population planning agencies from those four countries, and a few selected experts in population-development integration from Australia, Malaysia and the Philippines. Representatives of the Population Division, United Nations Headquarters, ILO, the Asian Development Bank and the Population Council also participated as resource persons.

1. Participation

19. The experts at the Workshop included:

Mr. Ashraf Uddin Ahmed, Assistant Professor, Institute of Statistical Research and Training, University of Dhaka, Dhaka-2, Bangladesh

Mr. Visit Boonyakesanond, Senior Advisor, Human Resources Planning Division, National Economic and Social Development Board, Bangkok

Mr. Bhakta Bahadur Gubhaju, Demographer, Research, Planning and Evaluation Division, Nepal Family Planning and Maternal Child Health Project, P.O. Box 820, Ramshah Path, Kathmandu, Nepal

Mr. Alejandro N. Herrin, Professor, School of Economics, University of the Philippines, Diliman, Quezon City, Philippines 3004

Ms. Brigida L. Jayme, Head, Population/Development Planning Unit, Economic Planning and Research Staff, National Economic and Development Authority, NEDA Pasig, Amber Avenue, Metro Manila, Philippines

Mr. Gavin W. Jones, Department of Demography, Australian National University, P.O. Box 4, Canberra, A.C.T. 2600, Australia

Mr. Thienchay Kiranandana, Faculty of Economics, Chulalongkorn University, Bangkok 10500

Ms. Lim Lin Lean, Associate Professor, Faculty of Economics and Administration, University of Malaya, 59100 Kuala Lumpur, Malaysia

Mr. Mohammed Abdul Mabud, Deputy Chief, Population Section, Bangladesh Planning Commission, Dhaka

Mr. Raghab D. Pant, Senior Economic Advisor, National Commission on Population, Singha Durbar, P.O. Box 1118, Kathmandu, Nepal

Mr. Kua Wongboonsin, Institute of Population Studies, Chulalongkorn University, Bangkok 10500

Mr. David E. Horlacher, Chief, Population and Development Section, Population Division/DIESA, New York

Mr. J. Krishnamurty, Adviser on Population and Employment Research, Labour and Population Team for Asia and the Pacific, International Labour Organisation (ILO), Bangkok

Mr. Ernesto M. Pernia, Asian Development Bank (ADB), Manila

Mr. Paul Demeny, Vice President and Director, Center for Policy Studies, The Population Council, New York

2. *Opening statement*

20. The Workshop was opened by the Chief of the Population Division of ESCAP, who welcomed the participants and expressed appreciation to those who had directly and indirectly contributed to the Workshop and the project. Besides reviewing the objectives of the project, he called attention to the fact that, in the ESCAP region, although the availability and quality of demographic data as well as population and development research had improved significantly recently, the results of those findings were not readily available in forms usable by the average policy makers and planners. Consequently, the extent to which the research results had been utilized for the purpose of public policy formulation and/or improvement had been limited. He emphasized, therefore, that a critical re-analysis, condensation, or synthesis of existing population and development information were needed. In addition, the analytical framework derived from such a process would be of great use to policy makers and planners as well as researchers concerned with that sphere.

21. The Division Chief also drew the attention of the Workshop to the fact that, in the past, most reports on population and development had been prepared by international experts and there was possibly a communication gap between the researchers and policy makers and planners. Understandably, that could result in limited applicability and utility of the reports. Thus, the project would attempt to encourage the participation of local expertise to the greatest degree possible.

3. *Election of officers*

22. The Workshop elected Mr. Gavin W. Jones as Chairman and Mr. Alejandro Herrin as Rapporteur.

4. *Agenda*

23. The following agenda was adopted:

1. Opening of the Workshop.

2. Election of officers.

3. Adoption of the agenda.

4. Review of the situation in selected countries of the ESCAP region as regards population and development research and planning:

   (a) Population and development research and planning in Bangladesh;

   (b) Population and development research and planning in Nepal;

   (c) Population and development research and planning in the Philippines;

(d) Population and development research and planning in Thailand.

5. Integration of population and development in less developed countries in the ESCAP region: planning, research and research needs.

6. Methodological guidelines for the development of an analytical framework for population and development research and planning:

(a) Population status reports;

(b) Population and development interrelation mapping;

(c) Analytical framework for population and development research and planning.

7. Outline of the study design.

8. Other matters.

9. Adoption of the report.

5. Documentation

24. The participants had, in addition to the four country papers, three background papers to support the agenda items. A list of the documents is presented in annex I.

6. Adoption of the report

25. The participants adopted the report of the Workshop on 20 February 1987.

D. Review of the situation in selected countries of the ESCAP region

26. The situation on population and development research and planning in the four participating countries was reviewed by planners from the respective countries.

Bangladesh

27. The paper prepared on the Bangladesh experience with the integration of population and development observed that in the formulation of development plans and policies, population was generally considered more of an exogenous variable than as a factor that could be influenced by socio-economic development. It was suggested that the neglect of the population planning concept

in the process of socio-economic planning had led to its neglect at the operational level as well.

28. The paper observed that the first step in the integration of population and development variables was the recognition by policy makers and planners that rapid population growth was a development problem. Once that was recognized, a variety of public policies were available to reduce population growth. Those would include, in addition to family planning services, the provision of social security for the elderly, reducing infant mortality and compensating couples who were willing to limit family size.

29. In discussing the scope for integrating demographic variables into planning, it was pointed out that a wide variety of demographic projections were needed, including total population, the agricultural population, the school-age population and the elderly. Studies were also required on women's status in society and the effectiveness of alternative programmes for improving that status. Other areas of needed research included strategies for achieving an equitable distribution of resources and ways of dealing with the rapid growth of population in urban areas.

30. In discussing how socio-economic demographic interactions took place, it was noted that the two major aspects of population change in the course of development were population growth and changes in the socio-economic characteristics of the population. Both must be projected in the course of integration.

31. It was observed that the integration of population and development at the operational level required identification of sectors and core programmes of those sectors to incorporate population reduction objectives. To accomplish that, studies on such programmes as rural electrification, income generation and farm employment might be carried out.

32. Though the decision of where to locate a population and development planning unit was considered of critical importance, it was noted that the quality of the staff, their background and scientific orientation were equally important. Thus it was maintained that the crucial factors for the successful implementation of a population and development planning project were an appreciation by (and sustained support of) policy makers and planners for utilizing population variables to influence sectoral policies and programmes and the creation of a group of scientifically-oriented, professionally-qualified senior and mid-level demographers having a broad understanding of the social sciences and the planning process.

Nepal

33. The experience of Nepal in adopting an integrated approach to population and development was described. It was noted that the Government had always perceived a two-way relationship between population and socio-economic

development. In that context, it was recognized that rapid population growth was off-setting development efforts, threatening the environment and depleting natural resources. Nevertheless, it had been difficult to put into operation an integrated approach to dealing with those issues. Given the seriousness of those problems, the Government in 1983 had adopted a comprehensive population strategy, one objective of which was the integration of population into development planning. Methods suggested to put integration into operation included the setting of targets for sectoral ministries on a per capita basis and informing communities of the impact of population growth on the benefits of specific projects. An important step was the recent decision of the Government to utilize a long-term perspective plan which had a more appropriate time horizon for considering the effects of demographic changes.

34. Nepal had made significant headway in institutional development for integrated policy formulation and programme co-ordination. The National Commission on Population had been reorganized in 1982 and would formulate policies, while programmes would be implemented by line ministries and agencies. To facilitate that a series of working groups involving those ministries and agencies had been established. Ultimately, programmes thus prepared would be forwarded to the National Planning Commission. Thus, population and development planning were at present the joint responsibility of the National Commission on Population and the National Planning Commission. Over time, co-ordination and collaboration between the two Commissions were being increased.

35. The main thrust of Nepal's population strategy was to alter the perspective of the people, thus encouraging them to reduce family size. Programmes to reduce infant mortality had also been given special emphasis. To generate effective demand for family planning, the communities had been involved more actively. And work continued to develop effective instruments to change the attitudes and behaviour of communities to fertility behaviour.

36. Research had long been recognized as an essential basis for formulating plans and policies and implementing programmes. Three major institutions currently conducted demographic studies: the Central Bureau of Statistics, the FP/MCH Project and the National Commission on Population. Several of the studies carried out by the National Commission on Population had been used to promote integration. The Commission had also identified areas where future studies were needed for the preparation of development plans.

The Philippines

37. Though the need to integrate population concerns into the development planning process in the Philippines had long been recognized, it was not until 1980 that more systematic, organized and sustained efforts had been pursued with the establishment of the Population/Development Planning and Research Project (PDPR). As a consequence, four major barriers to integration were identified and strategies and institutions to eliminate those barriers were implemented.

38. The institutional structure for integration was conditioned by the fact that the planning functions in the Philippines were dispersed among many ministries and agencies at both national and sub-national levels, and the National Economic and Development Authority (NEDA) served as a co-ordinator. Thus ultimately an agreement was reached that efforts to integrate population-development planning would be the primary responsibility of NEDA. Over time, the status and activities of the Population and Development Planning (PDP) Unit in NEDA were clarified. Among such activities was research management.

39. Consideration was given to establishing a set of PDP units in related ministries but it was found not to be economically feasible. However, PDP units had been established on a pilot basis in four regions. The goal was to integrate conceptual frameworks, data and methodologies within the planning process at the national and regional levels. The capacity for population-development research and training in the region had been strengthened by the creation of area research and training centers.

40. In its research management role, the PDP dealt with problems of an inadequate data and research base, weak linkages between researchers and planners and limited use of existing data and research findings. To deal with those problems, an inventory of population and development research in the Philippines had been commissioned. It had also supported preparation of projections, regional socio-economic demographic profiles and its development of a socio-economic demographic indicator system. It had also commissioned a variety of studies on population-development interactions, including the creation of a socio-economic demographic model. The PDP unit had also supported research into the relation between population, research and the environment.

41. A variety of workshops and other activities had been held to strengthen linkages between planners and researchers. In some cases, planners had been encouraged to participate actively in research activities. All of those activities were combined with various strategies to promote research integration, such as the preparation and dissemination of bibliographies and policy-oriented syntheses of research studies, aiding planners and researchers to retrieve needed data and maintaining a central file of relevant statistical data and research information.

42. Much work remained to be done to fully integrate population factors into Philippine development planning. There was still a tendency among planners to perceive population as an exogenous factor during the five-year planning period. There remained a need to promote a more systematic approach to integrating population and development, with particular emphasis on reducing poverty. There was also a need to review the potential effects on population distribution of various development strategies. More work could be done to achieve integration at programme and project levels, involving decisions regarding the type, location, design and emphasis of such programmes and projects. The monitoring and evaluation of integration in development planning would be improved by measures to determine whether the intended target populations had been reached effectively.

43. The Government of Thailand had long recognized the need to integrate population factors into the national development planning process and to a certain extent population activities had been integrated with overall planning in the National Economic and Social Development Plan since 1972.

44. The paper on integration in Thailand reviewed the demographic and socio-economic situation in that country, providing information on population size, composition and distribution, population growth, fertility and mortality, as well as migration and urbanization. The description of the socio-economic situation presented information on the youth dependency burden, the labour force and trends in education.

45. Since 1970, the Government of Thailand had recognized the negative impacts of rapid population growth. That was the result of efforts over a long period by Thai economists and demographers, as well as government officials. To implement the national population policy, the Government in 1970 had created a population unit, called the Population and Manpower Planning Division, in the National Economic and Social Development Board (NESDB). In each successive plan, the scope of integrated planning had increased. During the preparatory work for the current sixth plan, 1987-1991, NESDB had commissioned a study of the probable impact of demographic changes in the next decade on employment and various types of public expenditure.

46. Though Thailand had made significant advances in integrated planning, lack of co-ordination among governmental units remained a serious problem. To overcome that and integrate population factors throughout the national development process, the Sub-Committee on Population Policy and Planning, operating through its secretariat, the Human Resource Planning Division (successor to the Population and Manpower Planning Division) worked closely with the other socio-economic committees of NESDB.

47. Considerable research had been commissioned by NESDB to document the relationship between population and development as it concerned planning. Towards the end of the last decade, a joint research programme between NESDB and the Institute of Population Studies had resulted in 22 policy-oriented studies. In preparing for the sixth plan, the Thailand Development Research Institute had carried out a study which provided information on the impact of population changes in the next decade and a project on socio-economic and demographic relationships at household and village levels was implemented by the Human Resource Institute of Thammasart University.

48. Though there has not been a systematic evaluation of the effectiveness of integration in development planning within NESDB, the current arrangement did seem to have a number of advantages. The population planning unit at NESDB did provide other planning units with population data and information needed for their work, thus promoting the utilization of research findings, since

population activities included improvements of population quality, spatial distribution of population and human settlements as well as family planning, the Sub-Committee on Population Policy and Planning and its secretariat, the Human Resource Planning Division, had successfully acted to co-ordinate the concerned agencies. Nevertheless, work remained to be done in improving the effectiveness of the Sub-Committee and its secretariat.

49. NESDB would undertake new activities to integrate population into planning, giving more systematic attention to urbanization and population disbribution issues. That was part of an overall commitment to consciously move away from traditional and narrow views of population policies. That effort could be advanced by increased knowledge of the relationship between population and development, and developing closer collaboration between planners and researchers in designing future research and, finally, by augmenting the quantity and quality of the relevant staff.

Discussion

50. In connection with the review of the situation in the four participating countries as regards population and development research and planning, there were a number of questions and comments.

51. In observing that the Philippine project on population and development planning and research (PDPR) had been in operation for the past six years and that considerable progress had been achieved in the area of institution-building, training and research, a question was raised as to whether or not the project had actually led to changes in policies or whether or not policies formulated based on an integrated framework had had an impact on development objectives. It was noted that such a determination was difficult to make. Moreover, it was clarified that the primary purpose of integration was to improve the quality of policy formulation and planning rather than directly influencing specific policies in any direction.

52. The discussion further clarified the mechanisms evolved by the PDPR project to strengthen the collaboration between researchers and planners in identifying research issues, in determining the appropriate research strategies to be adopted, and in utilizing research findings for policy formulation and planning. On the issue of research utilization, it was noted that different types of reports i.e. research digest, might be prepared to address different levels of planners.

53. A useful suggestion was made regarding the need for critically evaluating the lessons that could be learned by the PDPR project, more particularly with respect to the ways in which various perceived constraints towards integration had been addressed and whether alternative strategies could be identified for possible adoption by other countries still embarking on a similar project.

54. After noting the similarities in approach between Thailand and the Philippines, that is, training of planners in line ministries as well as dissimilarities

in their planning structure, that is, one planning unit (NESDB) in Thailand as opposed to two units taking on various aspects of population planning in the Philippines (NEDA and POPCOM), a question was raised regarding the need or urgency for undertaking a project on population and development planning integration in Thailand, given that their demographic transition was well under way. It was pointed out integration must be pursued at different levels. It was possible that integration might exist at one level, the project planning level, but not at another, the macro or sectoral level.

55. In the case of Thailand, it was pointed out that among the three planning levels, national, sectoral, and provincial, much still needed to be done in terms of integration at the sectoral and provincial levels. Constraints to integration included data gaps at those levels of planning, especially with respect to migration. Moreover, there was a need to understand the existence of wide variations in total fertility rates (ranging from 1 to 5) between provinces.

56. The role of research in supporting planning activities was noted specifically with reference to the preparation of the fifth and the sixth development plans. While collaborative research between NESDB and IPS utilizing available information characterized research in support of the fifth plan, a new organization, the TDRI, had taken an active role in research in support of the sixth plan.

57. The advantages and disadvantages of creating new units to minitor integration were discussed. Among other things, it was noted that while initially a separate unit might be useful in focusing attention on the need for integration and co-ordinating various training and research activities, there was a danger that such a unit would become isolated from the mainstream of planning activities.

58. Questions were raised regarding the extent to which available research was used in the planning process in Nepal. It was pointed out that the potential for population-development research to support the integration process remained to be fully realized. To be useful for planning, however, research on population-development interactions must be structured in such a way that "policy handles" could be easily identified. With respect to data gaps, it was pointed out that while various data collection activities had been undertaken for specific purposes, there was a need to integrate those various activities so that the information obtained from each could systematically cumulate into a coherent and consistent body of information useful for planning.

59. In the case of Bangladesh, it was noted that familiarity with either population or development dynamics did not necessarily mean that planners were familiar with the process of integration. The important dimension in integrated planning was the understanding of the interaction between population and development factors. Moreover, while commitment to integration at the top planning level was a must, it was equally important to generate a similar commitment at the local or lower planning levels. In generating such a commitment, it was suggested that emphasis should be placed on the role of integration in improving planning.

E. Integration of population and development in less developed countries in the ESCAP region: planning, research and research needs

60. The background paper on that topic was presented and discussed. The paper is given in part two. In essence, the paper discussed the fundamental concepts and forms of integration and went on to review the extent to which there had been effective integration of population and development planning in Bangladesh, Nepal, the Philippines and Thailand. On the basis of the review, the paper then identified the planning and institutional implications on the one hand, and the research and data needs on the other, for more effective integration.

61. A number of questions and comments were raised. The discussions revolved around the rationale for planning (for example, failure of market forces alone to achieve the desired outcome), the adequacy of current approaches to population projection (for example, lack of alternative assumptions regarding mortality trends and migration patterns), and the efficiency with which research results were transformed into useful information for policy formulation and planning. On the last issue, a question was raised as to whether there was a need for an intermediary between researchers and policy makers/planners. It was pointed out that currently there already existed many lines of communication between researchers and users. What might be strengthened, however, was the capacity of planners to be efficient consumers of research (for example, they should be able to specify more concretely what information they needed and should be able to evaluate critically the research results that were presented to them). Within planning units, it might be possible to develop a core group who could perform those "digesting and "ingesting" functions for policy makers and planners.

F. Population status report

62. A background paper in relation to that topic is given in part two of the report. In that connection, there was a brief description of experience of some countries (that is, United Kingdom of Great Britain and North Ireland, United States of America) in commissioning large-scale studies to look at population issues of great concern at the time (that is, implications of below-replacement fertility in the United Kingdom and the expectation of continued rapid population growth in the United States). Although such studies were eventually overtaken by events (the baby boom in the 1950s and return to below-replacement fertility in the 1970s), they represented good examples of efforts designed to influence policy.

63. In developing countries, there were certain factors that tended to dampen interest in the continuing and more rigorous analysis of the implications of population growth. One of those factors was the early consensus that was achieved regarding the need to moderate rapid population growth based on

simple but highly persuasive economic-demographic models, such as those pioneered by Coale and Hoover. Since most policy makers and planners had been convinced that rapid population growth made development efforts more difficult, they were reluctant to invest resources in studies aimed at learning more about consequences. A second factor was related to the success in reducing fertility and population growth in some developing countries. Such success had encouraged an anti-intellectual attitude towards studying the consequences of population change.

64. The presentation pointed out that that was not a correct attitude to take. Population problems in developing countries still existed in sufficient magnitude to deserve careful analysis, although the nature of such problems might have been changed over the past decades. That was the underlying case calling for the elaboration of "Country status reports". Since population problems had many dimensions and since differential changes might have occurred in some of those dimensions in individual countries, there was a need for careful country-specific analyses of those dimensions. If the analyses were correctly undertaken and the reports well prepared, they could be influential in generating renewed interest in and commitment to addressing current and prospective population problems.

65. Various perspectives and approaches to the preparation of those reports were suggested. Researchers were enjoined to explore more innovative ways of progressing reports which were more digestibel and appealing to participation and planners, in contrast to traditional research reports. Those are contained in the background paper on the topic reproduced in part two.

66. Discussion centred on the reasons for the lack of research on the socio-economic consequences of demographic change, on how country status reports could provide an added impetus toward such efforts, and on whether existing economic reports already covered the subject and how the population-development reports could either be integrated into such reports or supplement them. If economic reports did not yet exist, population-development status reports could help generate interest in preparing other reports on salient development issues.

67. At the conclusion of the discussions, it was reiterated that with the limited time frame of that project, country status reports could be more useful if they focused on selected specific issues or a policy set, rather than to describing population-development interrelationships as such not directly related to real-life issues.

G. Population and development interrelation mapping

68. The discussion on that agenda item was with reference to the United Nations documents entitled "The mapping of interrelations between population and development" (ST/ESA/SER.A/43) and "The work of the task force on

interrelationships between population and development" (ESA/P/WP. 36). The participants in the Workshop were informed that a number of frameworks had been proposed for integrating demographic factors and policies into planning, one such framework being the interrelation matrix prepared by the United Nations Task Force on Interrelationships between Population and Development. It was noted that the framework had been developed to co-ordinate research on population and development within the United Nations system and might be useful for assessing research programmes in a variety of contents.

69. The interrelation matrix was constructed by treating a number of variables as both determinants of and as dependent on other variables. It was described as based on a set of 61 variables. Of those, 15 could be considered objectives of planning, and 10 were classified as population variables. There were 36 other variables, representing economic factors, policy instruments and socio-cultural and exogenous factors.

70. The matrix itself, consisting of 61 rows and columns, was composed of 3,721 individual cells. Each cell represented a possible direct impact of one variable on another. Thus, a row of cells would indicate the determinants of a variable and a column of cells would indicate the impacts of a variable.

71. The total matrix could be partitioned into nine submatrices, five of which involved population variables. The corner submatrices, however, involved interrelationships between non-demographic variables. The rationale for including such relationships was that they were needed to trace out the various links in chains of causation, which were often lengthy and complex.

72. Each user of the interactions matrix technique should select the particular variables, indications and levels of aggregation which were appropriate for the task on hand. In that regard, it was suggested that such matrices, once constructed, could be utilized for a variety of research-related purposes. The relationships being studied by one or more organizations could be inventoried and the results displayed as Xs in the corresponding cells of a matrix. Judgments could be made about the likely existance of relationships and Xs placed in the appropriate cells. Estimates could be made of the likely strength of such relationships and numeric scores could be entered in the appropriate cells. Similar judgments could be made about the state of knowledge concerning known relationships and a score indicating that status could be entered into the matrix. Scores could also be assigned on the basis of presumed relevance for planning and policy-making. Given the profiles indicating the strength, importance and state of knowledge of each assumed relationship, it should be possible to assign a set of research priorities.

73. It was noted that the matrix or a framework for organizing a programme of research had many similarities to an economic demographic model. In fact, economic demographic models could be analysed using the interrelation matrix approach to inventory the relationships actually included in the model.

74. Much of the rest of the discussion centred on clarification on how certain variables were chosen, how they were measured, and what the bases were for some of the suggested interactors between variables. Some participants suggested that the matrix prepared by the United Nations Task Force might be more detailed than was necessary for many planning/research applications and a number of questions were raised as to whether the relationships had been correctly identified. Given those apparent flaws, some questioned the utility of the matrix approach itself. Other participants emphasized the need to develop matrices tailored to their own country situations. In that regard, it was noted that the Philippine Population/Development Planning and Research Project had prepared its own matrix, which had been successfully used to analyse the relationships contained in the national development plan and in a national economic demographic model. It was stated that that matrix had been particularly effective as a training instrument.

H. Analytical framework for population and development research and planning

75. A paper was presented suggesting an approach to help planners obtain information regarding population-development interrelationships at the country level and to provide the analytical basis for integration. The framework involved a behavioural model to conceptualize how various social, economic and demographic outcomes were determined as well as their relation to development policies and programmes.

76. The framework for a macro perspective was presented in diagrammatic form showing linkages between demographic processes and outcomes and socio-economic outcomes and processes. A second framework was presented which could be used to extract population-development interactions at the sectoral level. The economic sector was described along with the infrastructure sector.

77. As in the macro and sectoral levels, the integration of population and development planning at the programme and project levels required consideration of the same three basic elements: the development objectives, the population development interaction and the socio-economic and demographic programmes designed to achieve those objectives.

78. The paper described a number of illustrative research studies in support of the integration of population and development planning. Such studies included the role of public policies in economic and demographic transitions, a sectoral analysis of public policy and health outcomes and assessments of the demographic impact of development projects. The full paper is presented in part two of this report.

I. Outline of study design

79. A background paper on the design of country studies to be undertaken in Bangladesh, Nepal, the Philippines and Thailand was presented for consideration

at the Workshop. After the presentation of the paper, the Workshop discussed the pros and cons of various approaches for developing study designs specific to participating countries as well as appropriate for an intercountry comparison. The representatives of each of the participating countries then presented for discussion their proposed formats for their country reports, and identified specific problems/issues on which they would focus.

1. Study methodology

80. The entire study would be implemented at two levels, country and intercountry. Studies at the country level would be conducted in the four participating countries. Once the country studies were completed, and before final publication and dissemination, an intercountry comparative analysis would be undertaken by the secretariat in order to synthesize, from a regional point of view, the findings of the country studies.

81. The study would emphasize the participation and contribution of local experts at both levels of implementation. Studies at the country level would be undertaken by a study team of local experts, working in either academic or research institutions, or in the government planning agency, with technical backstopping to be provided by ESCAP. An intercountry comparative study based on the four country studies would be reviewed and discussed at a regional meeting to which experts and planners from countries participating in the project would be invited.

82. The study also emphasized the participation of planners, especially from the countries participating in the project, with a view to enhancing their consciousness of existing population and development interrelationships and implications for the formulation or improvement of public policy, as well as obtaining their pragmatic views and guidance for the study. In particular, for country studies, each country study team should consist of at least one planner from the country's economic planning agency.

83. In general, the project would consist of a few major steps. To start with, the Workshop was convened for country experts, planners and other outstanding experts in that area to develop and discuss methodological guidelines for the country studies. After the Workshop, the studies at the country level would be undertaken simultaneously by country study teams, with technical backstopping to be provided by the secretariat. The country study work would be subdivided into two phases.

84. In the first phase, country experts, following the framework and recommendations discussed at the workshop, would identify or locate the existing data and research in the areas of population and development, analyse and assess their quality, synthesize the research and prepare a preliminary report. The preliminary reports would then be presented and discussed at a study directors' meeting to be held at the end of the first phase of the country study. At that

meeting, a few resource persons would also be invited to review and comment on the preliminary study results.

85. In the second phase, the country experts would refine their preliminary results, assess the relative importance of various population and development interrelationships for public policy decisions, as well as identify unexpected implications of existing population and development trends, develop an analytical framework for further research in those areas, and prepare a draft final report to be submitted to ESCAP. Towards the end of the project, a regional meeting of experts would be convened to review the draft final country reports and an intercountry comparative study, as well as to discuss highlights of specific country findings that would be of interest and relevance to other countries. After the regional meeting, a final report would be published and disseminated.

86. The country studies to be undertaken as part of the project should follow the methodological guidelines developed, recommended and discussed at the workshop.

87. In general, for individual national entities, the country studies should aim at presenting up-to-date and scientifically sound descriptions, analyses and interpretations of significant population and development trends and their interrelationships for the formulation or improvement of public policy. More detailed guidelines may be found in the background papers reproduced in part two of this report.

2. Country study outline

88. A tentative outline designed by the secretariat was presented and relevant guidelines, that is, objectives and methodology, were reviewed. To set the stage for a more thorough discussion of individual country study designs, some general issues were first clarified.

89. Those general issues revolved around : (a) the composition of the team, the time commitment of different members of the team, and the need to maintain objectivity; (b) the problem-focused emphasis versus the encyclopedic approach; and as a consequence of (b), emphasis on a country-specific approach rather than on preoccupation with a predetermined structure for comparability. The outlines of the proposed country reports were presented and discussed. The accepted outlines are reproduced in annex II.

90. Some salient points and suggestions that emerged from the comments on the proposed outlines are given below for each country.

Bangladesh

91. The concern with the presentation of the proposed study was that the outline, as originally set out, suggested a rather bland, encyclopedic treatment rather than a focused treatment of issue(s) deemed crucial for Bangladesh.

92. It was suggested that section II.B should represent the crux of the study, that is, the study should focus on what rapid population growth had done to economic and social welfare. The main thrust should be on how important and in what ways population change effected economical and social development, structural adjustments, the position of population sub-groups, etc. Adopting such a focused approach would suggest that discussion on policies should not be emphasized, but rather policies should be brought in only in so far as they directly addressed the problems of rapid demographic growth.

93. A plea was also made to give some consideration to the other direction of the interlinkages, i.e. the effects of economic and social development on demographic factors.

Nepal

94. There could be a more focused approach, perhaps with the main theme of fertility regulation. If the focus was on fertility regulation, then topics dealing with migration and mortality should be dealt with only in as far as they related to fertility regulation efforts.

95. Areas/topics not mentioned in the proposed outline but that were identified as being significant for Nepal included:

(a) Urbanization and urban growth;

(b) Education and literacy, especially for women;

(c) Potential impacts of ecological degradation;

(d) Impact of infrastructural developments, such as roads links, on demographic change;

(e) Institutional aspects of putting integration into operation.

96. Taking into consideration the recommendations made at the Workshop, the outline of the country report was revised and is included in annex II.

The Philippines

97. The Philippine proposal for the country report was commended for taking a focused, "burning issue"-oriented approach. But concern was expressed that the focus on poverty should give explicit recognition to the population-development interlinkages and not be slanted only to the "development" perspective. To help ensure that there was that emphasis on the demographic aspects of poverty, one suggestion was to consider how shifts in population policy or how population growth or alternative population trajectories had effected or were likely to affect poverty.

98. Part of the discussion centred on the type of approach to adopt to catch the attention of or to be acceptable to policy makers and planners. There was some feeling that an approach that highlighted the socio-economic development perspective or that was couched in terms of the current concern in the country with the programme of economic recovery would both catch the attention of and be more acceptable to policy makers and planners in the Philippines. On the other hand, it was rationalized that since the study was intended as an analytical rather than normative piece, it should not have to be concerned with the issue of how it would be received in the country.

99. In discussing the coverage to be given to policies in the report, four major points emerged:

(1) The emphasis should be on how policy distortions had heightened the problems of the poor and/or on how current population policies affecting fertility regulation, infant and child health and so on had eased the burden of the poor;

(2) The need to recognize that policy makers and planners and formal policies constituted only one of the components in the system of interlinkages;

(3) In relation to (2), the need to clarify the internal dynamics of the system rather than just focusing on what the government had done;

(4) The recognition to be given to the importance of the private sector, the implications of moves toward the privatization of services, and the extent to which public policies had reshaped markets.

100. Specific suggestions for restructuring the study outline included:

(1) Inclusion of a section in the introductory chapter on the economic and demographic context in which poverty had arisen;

(2) Inclusion of a section in the chapter on policies to deal with the effects of demographic trends and policies on low-income households.

Thailand

101. In the presentation of the proposed outline for the Thai country report, it was clarified that a sectoral perspective would be adopted, based essentially on issues arising from ministerial plans. The first three chapters were intended only as a brief introduction to lead up to the issues highlighted in the remaining three chapters. The possibility of Combining the first three chapters into one chapter was therefore considered.

102. One salient suggestion was that the sectoral focus of the study could be placed within the context of discussing the impact of the relative slowing down of population growth rates in Thailand on changing age structure, youth dependency, labour force and employment, educational needs, old age problems, and so on.

103. One serious concern expressed was that the three sectoral issues selected, in particular the education component, might not be the most outstanding issues for the country, especially in view of the fact that all three represented essentially population-responsive sectors. Other areas suggested for consideration, either to be added to or as a substitute for the selected sectors, included: (a) the speed and importance and impact of structural transformations on the labour force; and (b) spatial distribution of the population and settlement patterns.

3. Work schedule

104. The Workshop recommended that the country studies should observe the following work schedule:

Workshop on an analytical framework for population and development research planning	16-20 February 1987
Country studies: first phase	1 March-31 July 1987
Submission of preliminary reports	31 July 1987
Study directors' meeting	17-21 August 1987
Country studies: second phase	21 August-31 November 1987
Submission of draft final report	31 November 1987
Regional seminar	11-15 January 1988
Refinement of final reports	15 January-15 February 1988
Submission of final reports	15 February 1988
Publication and dissemination of final reports	31 March 1988

It was noted that, since the project would have to be completed at the end of March 1988, the deadline for the submission of the final reports could not be later than 15 February 1988.

Annex I

LIST OF DOCUMENTS

Provisional agenda	POP/WAFP/L.1/Rev.1
Aide-mémoire	
Country reports on population and development: why, what, and how? A selective outline of issues (Paul Demeny)	
Fertility impacts of development projects in Asia (John Stoeckel)	POP/WAFP/1
Integration of population-development planning: Nepal's experience (Raghab D. Pant, B.B. Gubhaju and G. Regmi)	POP/WAFP/2
Integration of population and development in less developed countries in the ESCAP region: planning, research and research needs (Lim Lin Lean)	POP/WAFP/3
Population and development planning and research in Thailand (Visit Boonyakesanond)	POP/WAFP/4
Outline of study design (Secretariat)	POP/WAFP/5
Population and development planning integration: the Philippine experience (F. Pante, Jr. and Brigida L. Jayme)	POP/WAFP/6
Analytical perspectives for population and development research and planning (Alejandro N. Herrin)	POP/WAFP/7
Integration of population and development (An analytical framework of population planning and research (Mohammed A. Mabud)	POP/WAFP/8

Annex II

COUNTRY STUDY OUTLINES

BANGLADESH

Chapter

I. INTRODUCTION

A. Background and justification of the study

B. Objectives of the study and methodology employed

C. Scope and limitations of the study

D. Organization of the study

II. DEMOGRAPHIC AND SOCIO-ECONOMIC SITUATION OF THE COUNTRY (in brief)

A. Demographic situation
- Population size and growth (since 1971 to present)
- Population distribution/density
- Population composition
- Fertility
- Nuptiality
- Mortality
- Migration (international and internal)

B. Socio-economic situation
- Economic growth (GNP per capita income)
- Poverty
- Labour force
- Unemployment
- Land utilization

III. THE RELATIONSHIP BETWEEN POPULATION CHANGE AND SOCIO-ECONOMIC DEVELOPMENT

A. The role of demographic factors in economic and social development (population and employment education, health)

B. Effects of economic and social development and demographic factors (development and fertility, mortality, health and education)

C. Assessment of the integration of population and development policies and programmes (with respect to health, education and employment programme)

IV. POPULATION POLICIES AND HEALTH/NUTRITION PROGRAMMES

A. Population change and health/nutrition status

B. Current population policies and health/nutrition programmes

C. Perspective of future population change in relation to health/nutrition programmes

D. Analytical framework for further research

V. POPULATION POLICY AND EDUCATION DEVELOPMENT PROGRAMMES

A. Demographic factors affecting educational systems

B. Current policy for education development in response to demographic transition and manpower requirement

C. Analytical framework for further research

VI. POPULATION POLICY AND WOMEN'S DEVELOPMENT PROGRAMMES

A. Current population policies and women's development programme

B. Impact of the programme on women's participation and population changes

C. Analytical framework for further research

VII. SUMMARY AND CONCLUSION

BIBLIOGRAPHY

NEPAL

I. The demographic and socio-economic situation of the country (period covered 1960-1985, population growth, distribution, age at marriage, fertility, mortality, pattern of economic growth, structural transformation, sources of financing, two-way relationship between population and development, population trends, projections and implications).

II. REVIEW OF CURRENT POPULATION POLICIES AND RELATED PROGRAMME

A. Evolution of the country's population policy

B. Population influencing policies

C. Population responsive policies

D. Population policy and programme: monitoring, co-ordinating and evaluating system (includes discussion on policy and programme with respect to integration of population and development)

III. THE RELATIONSHIP BETWEEN POPULATION AND SOCIO-ECONOMIC DEVELOPMENT

A. Poverty

B. Environment

C. Natural resources

D. Pre-school and primary school children

E. Women's education and employment

F. Regional migration

G. Basic needs-housing, food, drinking water, health services, clothing

IV. POPULATION AND DEVELOPMENT, SUGGESTED STRATEGY

A. Economic development and population planning: family strategy and basic need

B. Fertility regulation programme

C. Demand generation for small family: option analysis (e.g. tax incentives: allocation of public services social security, basic needs, value of children, women's economic roles, information and communication, rural development programme, control of migration and needed development strategy)

D. Institutional responsibility: the process of decentralization

V. ANALYTICAL FRAMEWORK FOR FUTURE RESEARCH NEEDS

VI. BIBLIOGRAPHY

PHILIPPINES

(Poverty, population and public policy in the Philippines)

I. THE POVERTY CONCERN IN THE CONTEXT OF ECONOMIC RECOVERY AND SUSTAINABLE GROWTH

II. POVERTY TRENDS AND DYNAMICS

A. Poverty estimates

B. Poverty incidence by region and social groups

C. Economic and demographic aspects of poverty

III. PUBLIC POLICY AND POVERTY: RETROSPECT

A. Macro-economic and sectoral policies and programmes and their impact on socio-economic environment facing low-income households in the context of rapid population growth

B. Population policies and programmes and their impact on demographic behaviour of low-income groups in the context of declining macro-economic and sectoral performance

IV. PUBLIC POLICY AND POVERTY: PROSPECT

A. Economic policy reforms under the new Government and their potential impact on poverty allevation: short- and long-term

B. Implication of the shift in population policy on the low-income group's capacity to cope with poverty: short- and long-term

V. PUBLIC POLICY AND POVERTY: NEW DIRECTIONS

VI. AGENDA FOR RESEARCH

THAILAND

(Population and development in Thailand: with special reference to health/nutrition, education and old-age security)

INTRODUCTION

I. SOCIO-ECONOMIC AND DEMOGRAPHIC SITUATIONS OF THAILAND

A. An overview of economic changes
(Historical changes in the economic situation since the first National Development Plan)

B. Current significant economic problems
(Fundamental constraints of economic development with special emphasis on equity and efficiency issues)

C. General demographic outlook
(Demographic trend in the recent past and its transition, including population size and structure, fertility, mortality and migration; future demographic outlook)

D. The relationship between population change and socio-economic development in Thailand
(The role of demographic factors in economic and social development; impacts of economic and social development on demographic factors; assessment of the integration of population and development policies and programmes (relevant to health and nutrition, education and old-age welfare schemes))

II. POPULATION CHANGES AND HEALTH/NUTRITION STATUS

A. Population change and health/nutrition status

B. Current relationship between population policies and health/nutrition programmes

C. Perspective of future population change in relation to health/nutrition improvement

D. Analytical framework for further research requirements

III. POPULATION CHANGES AND EDUCATIONAL DEVELOPMENT

A. Current and future demographic transition affecting educational system and arrangement

B. Educational development in response to demographic transition and manpower requirements

C. Analytical framework for further research

IV. POPULATION CHANGES AND WELFARE SCHEMES FOR AGING POPULATION

A. Direction and magnitude of a change in the age structure of population

B. Current situation of welfare schemes for the elderly

C. Requirements for institutional arrangements and research in support of future aging population welfare programmes

SUMMARY AND CONCLUDING REMARKS

ANNEX: ANNOTATED BIBLIOGRAPHY ON POPULATION AND DEVELOPMENT IN THAILAND

Part Two

SELECTED BACKGROUND PAPERS

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COUNTRY REPORTS ON POPULATION AND DEVELOPMENT: WHY, WHAT AND HOW? A SELECTIVE OUTLINE OF ISSUES

Paul Demeny

The following notes provide a summary of issues that are encountered in efforts to enhance population policy development and analysis through the preparation of country reports (defined below). The notes are divided under six broad topics:

I. Concept and purpose of country reports

II. Past experience and current activities

III. Analytical framework and coverage

IV. Data needs and data bases

V. Target groups and presentational issues

VI. Organizational problems

I. Concept and purpose of country reports

1. *Concepts of country reports.* Country reports on population and development aim at presenting up-to-date and scientifically sound descriptions, analyses, and interpretations for individual national entities of significant population and development trends and their interrelationships, and assessments of the implications of these trends and relationships for the formulation or improvement of public policy.

2. *Specific aims* of such country reports include:

(a) Integration of analyses of particular policy-relevant issues into a single presentation or into a series of presentations within a coherent framework;

(b) Critical re-analysis, condensation, or synthesis of existing information and findings now scattered in statistical compendia, research reports, monographs, and other sources not easily accessible to policy makers or the general public;

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* This paper was originally prepared for and presented at the Workshop on Country Reports on Population and Development held at Bergen, Norway, in September 1977. It was distributed as Working Paper No. 37, Center for Policy Studies, The Population Council, New York, December 1978.

(c) Assessment of existing population policies;

(d) Formulation of feasible new policy approaches, and evaluation of their expected welfare benefits and costs;

(e) Identification and analysis of population problems preparatory to subsequent attempts to formulate appropriate remedial policies;

(f) Provision of benchmarks for measuring and monitoring progress in matters concerning population and development and related public policy;

(g) Discovery and identification of unsuspected implications of existing population and development trends; the signalling of specific danger points or provision of reassurance about their absence;

(h) Assessment of the relative importance of various population and development relationships for public policy decisions.

3. *Subsidiary goals.* In addition, as a by-product, country reports should:

(a) Enhance social consciousness of existing population and development trends and their implications;

(b) Provide relevant background facts and analytical findings for the general public, and otherwise inform public debate about population policy;

(c) Identify key gaps in knowledge, and hence help establish priorities in research and data-gathering efforts;

(d) Facilitate international exchange and comparison of findings on population and development relationships;

(e) Contribute to the development of improved theoretical and analytical tools for investigation of population and development relationships and consequent policy choices.

4. *Rationale for country focus.* The main rationale for the country focus in population and development reports is the latent demand inherent in the convergence of policy interest and executive capacity within national units, as distinct, for example, from global or regional formulations. Further reinforcement of the rationale is provided by the limited legitimacy of cross-national transfers of many problem formulations, value assumptions, analytical schemes, and behavioural relationships; by the national idiosyncrasies of the empirical data base; and by the numerous advantages of issue- and problem-focused rather than disciplinary formulations.

5. *Selectivity of content.* Country reports are not envisaged as encyclopedic treatments or even comprehensive analyses of population and development

issues and their policy implications. Rather it is assumed that the attention-span of potential audiences is limited; that policy orientation calls for strong selectivity of the topics examined by degree of their potential welfare importance; and that some plausibly important relationships are not yet sufficiently established to warrant treatment in country reports.

6. *Timeliness of country reports.* The time is ripe for consideration of initiating preparation of country reports because:

(a) Interest in population policies is emerging in those countries which do not yet have explicit population policies;

(b) Countries which have adopted population policies need more systematic policy review and analysis;

(c) Dissatisfaction with existing policies often calls for policy reappraisal and vigorous exploration of new policy approaches;

(d) Preconditions for successful country report efforts – with respect to an existing empirical knowledge base and with respect to institutional and trained manpower resources – now exist in many countries, including many developing countries;

(e) A good deal of relevant technical, institutional, and political experience in similar efforts has accumulated and can be mobilized.

7. *Learning by doing.* Nevertheless, it is to be expected that initial country report efforts will be in many ways tentative and imperfect, reflecting significant weaknesses in the empirical and analytical base and a lack of directly applicable national experience. These weaknesses can be mitigated to some degree by proper preparation and by provision of adequate resources for country report efforts, but a measure of learning by doing is likely to be both inevitable and necessary.

8. *Relationship to economic and social reports.* Country reports on population and development bear a close relationship as a genre to country reports on economic trends and to the emerging genre of national social reports. In fact, country reports could be subsumed as a special component of either of these two types of reports. In some situations that may be a desirable and appropriate solution. Such a choice would have fairly straightforward and typically not far-reaching organizational and resource implications for population and development reports. However, it may be assumed that in most developing and many developed countries the policy importance and complexity of population and development relationships are such that a treatment independent from national social and economic reports is fully warranted.

II. Past experience and current activities

9. *Experience from past country reports.* Country-focused scientific work and discussions of policy issues that are relevant to the subject matter of country

reports on population and development exist, of course, in vast quantities. Co-operative ventures aimed at producing the type of analytical synthesis and broad policy analysis incorporated in the country report concept have been much scarcer. Four classes of reporting activity are of special interest for considering plans on country report projects:

(a) National population commission-type efforts, as exemplified in particular by experience in a number of European countries, the United States, and Australia;

(b) The extensive country-focused and policy-oriented economic reports prepared by the World Bank, with particular reference to their population component;

(c) Work organized by the United Nations and its specialized agencies, notably the International Labour Organisation (ILO) and the Food and Agriculture Organization of the United Nations (FAO) that analyse population and development relationships in particular countries;

(d) A recent effort by the Committee for International Co-operation in National Research in Demography (CICRED) to induce national teams or institutions to prepare country demographic reports following a broadly comparable format.

10. *Experience from other social science fields.* The relevance of experience accumulated in the preparation of policy-oriented country reports in neighbouring fields – economic and social development – also bears examination.

III. Analytical framework and coverage

11. *The aim of policy analysis* in a given country is to develop and assess proposals that (a) successfully pass the policy-making process; (b) lead to modification of the existing public policy stance; and (c) result in an improvement in social welfare over time (in comparison to what it would have been in the absence of the policy) as evaluated by agreed-upon criteria. If contributed by population policy, welfare improvement takes place through modification of demographic behaviour. The conventional list of the latter encompasses the broad categories of growth, fertility, family formation, mortality, and migration. Certain changes in demographic outcomes signal changes in welfare directly (for instance, decline in mortality), while other changes must be assessed for their indirect effect on welfare. These changes in welfare can be assessed on the individual and family level or on a more aggregated basis, including the country as a whole. From the point of view of public policy, policies may be aimed at mitigating social conflicts by lessening undesirable external effects of demographic decisions of individual actors or satisfying certain human wants (individuals or collective).

A simple framework of analysis for country reports suggested by these considerations thus may involve the following broad components:

(a) A description of demographic processes and states;

(b) Analysis of the factors that affect them, including assessment of their welfare significance;

(c) Examination of the consequences of demographic behaviour, including assessment of consequences for social welfare;

(d) A search for feasible modifications of the determinants of demographic behaviour that could be effected by a change in public policy and that would produce social benefits exceeding their costs.

12. *Use of comprehensive models in policy analysis.* A full description and analysis of the relationships just outlined would require the development of comprehensive models capable of simulating the numerous important linkages among various elements of the social system. Extensive efforts have been directed to constructing such models for the purpose of studying population and development relationships and their expected dynamics. However, problems inherent in the characteristics and use of such models render their policy payoffs highly tenuous.

13. *An alternative approach.* Consequently, it may be suggested that the art of population policy analysis should rely upon, first, examination of particular issues utilizing a variety of scientific tools, including a number of narrower and specific-purpose (although often still quite complex) submodels representing particular population and development relationships; second, the fusing of such partial analyses into a balanced overall narrative representation covering salient features of the entire development landscape; and third, development of policy propositions based on partial models but judiciously checked against each other for their coherence and adjusted in the light of the total picture.

14. *Need for a historical perspective.* In so far as available information permits, a strong historical component should be introduced in the analysis of various relationships, and in the description of past trends.

15. *Uncertainty concerning functional relationships.* As to exploration of future trends through various models, the existing state of theory and empirical information rarely permits realistic endogenous treatment of key variables, particularly in a longer-term perspective. Rather, the aim must be more modest: exploration of degrees of sensitivity and plausible ranges of future trends. This is likely to be the case, for instance, with respect to socio-economic determinants of demographic change. Analysis, for example, of the economic impact of population change on the aggregate level may then proceed by positing alternative demographic time trends or, at the micro-level, by examining the economic consequences of hypothetical patterns of family formation. Calculation of a

series of contrasting demographic growth patterns incorporating specific assumptions as to the proximate determinants of growth (e.g. "high" vs. "low" fertility assumptions) is an important and commonly-used analytic device. Even though such patterns are in a sense set by fiat, great care should be exercised in selecting and presenting the rationale of the demographic assumptions whose implications are to be examined. For instance, inconsistencies between posited demographic trends and expected future ranges of socio-economic changes (in view of what we know of broad relationships between such changes and demographic patterns) should be avoided. This, in turn, requires examination of future developments in such factors as income, economic and political institutions, technology, status of women and class structure, and the plausible social adjustments, including demographic adjustments, that such changes are likely to generate.

16. *Uncertainty concerning welfare significance.* The development of firm policy propositions is evidently made difficult – although not vitiated – by the existing weaknesses (reflected by the comments in the previous paragraph) in assessing both population-to-development impacts and cause-effect relationships between social factors and population trends. Assessment of the relative attractiveness of alternative policy choices, which should be a chief aim of country reports, is further complicated by the difficulty of attaching unambiguous welfare weights (negative or positive) to various policy measures or stances; to the resulting modified demographic behaviour; and to the various "impacts" of that behaviour. A quantitative welfare calculus is likely to be feasible only under drastically simple assumptions as to the shape of the welfare function used to evaluate a given policy. However, an explicit qualitative discussion of the nature and incidence of the costs and benefits of alternative policy measures is a key facet of policy analysis.

17. *The need for "impact analysis".* The foregoing comments underscore the importance of focusing analysis on population and development relationships that are quantitatively significant, and concerning which the state of knowledge is sufficiently advanced to hold out hope for the establishment of relatively strong propositions as to (a) the impact of existing demographic patterns and their expected changes, and (b) the feasibility of welfare-enhancing policy choices. The former objective – reaching valid and significant propositions concerning the impact of population processes – is logically prior to making policy proposals as such. It has obviously first priority in country situations where the existence of "population problems" is disputed. It may also be needed, however, where policy makers appear to be already fully persuaded that a population problem does exist. Periodic re-examination of the rationale of existing policies is a routine task of policy analysis. Such impact analysis is also needed to explore possible pay-offs from new policy approaches. Indeed, often ongoing policy interventions are poorly protected against unexpected critical assault upon their underlying benefit-cost calculus. In other instances, absence of incisive impact analysis may explain excessive timidity and conservatism in considering new policy alternatives. This state of affairs may, of course, correctly reflect actual uncertainties as to the effects of population change. In such a case, better diagnosis of population problems represents a first priority. As

diagnosis becomes firmer, and as empirical knowledge on behavioural relationships and on individual and group preferences becomes more solidly grounded, the prescriptive element in country reports should gradually gain the upper hand.

18. *Population-adjusting versus population-accommodating concerns.* Implicit in the above comments is the view that population change is a variable that may be adjusted by appropriate policy interventions. An alternative is to take an "accommodationist" stance, i.e., to take future population trends as given (although known within certain ranges only) and explore the public policy tasks of optimally accommodating such changes. In the polar case, the exercise of considering future population trends may be appropriately viewed as simply an input into the analysis of policy problems classified under other labels (for example, housing or employment policy). However, even when the intent includes consideration of population-adjusting measures, policy analyses will identify future population characteristics and magnitudes that are more or less outside the range of any plausible policy intervention, thereby identifying the magnitude of population-accommodation tasks faced by public policy.

19. *Diversity of analytic framework.* The foregoing general comments set the stage for considering an alternative analytic framework and the desirable contents of a country report. A wide range of possible options may be envisaged on that account, depending on the resources available, the desired time-table, the length of time period to be considered, the size of the country in question, the complexity of its economy and society, the desirability of cross-national comparisons, and the richness of the existing knowledge base.

The only general rule that may be suggested is that groups undertaking the preparation of country reports should favour formulations firmly rooted in an examination of local issues and conditions, and should give relatively little weight to the value of enhancing international comparisons and to the convenience of adopting analytical approaches developed in other countries. Since an encyclopedic approach to coverage is neither feasible nor desirable, the need is to select a small number of strategic focal points around which a presentation best suited to the nature of local issues and most responsible to local policy needs can be effectively organized. As the number of such potential focal points is large, it is likely that country reports would exhibit a good deal of diversity not only with respect to substantive content but also in organization and arrangement of topics. This is not to say that important common themes do not exist. Elements likely to be standard in most country reports are: a broad historical overview of demographic change and of socio-economic development, a description of existing institutional and political arrangements, a discussion of the social/ethnic/religious composition of the population, and an exploration of expected future ranges of population trends. However, key analytical content and substantive focus would depend on a limited number of items being selected from among a wide range of possible options, and hence would tend to exhibit substantial diversity. As a matter of classification, seven types of organizing approaches may be distinguished. Each of these further subdivides into a variety

of subtopics from among which, in any given setting, only a few will call for relatively elaborate development. The classification, of course, is overlapping and non-exclusive. Nevertheless, the first choices as to organizing the discussion and analysis are likely to lend a distinctive flavour to each country report. Only the general nature of each approach is indicated in the paragraphs that follow. The order of listing is not suggestive of their relative importance.

20. *A sectoral perspective.* One organizing strategy is to use analysis of sectoral impacts of population change as the appropriate starting point. The impacts are viewed on a highly aggregated level, as it were from the perspective of sector-ministries or other specialized governmental departments. The approach is primarily investigative and diagnostic ("Is there a problem, and if so, what is it?") but with obvious extension toward policy concerns (what to do to lessen undesired impacts interfering with fulfilment of the mandate of various government agencies). The analysis typically proceeds by positing alternative population trends specified in appropriate structural subdivisions (e.g., by age, sex, urban or rural residence, and so forth) and assessing the implications for sector performance. In particular, costs of accommodating alternative trends are compared or, for given budgets, implied qualities of services rendered are contrasted. Examples of sectors (typically covered by a specialized government agency) include

- Education
- Health
- Housing
- Transport
- Energy
- Environmental amenities
- Employment

21. *A family perspective.* A second strategy for organizing the contents of country reports is oriented to the micro-level and provides both a diagnosis of (Is there a problem?) and insights into policy approaches influencing demographic behaviour. It investigates how micro decisions concerning marriage, family size, child spacing, divorce, and other choice-dependent life-cycle events affect family welfare and the welfare of particular members within the family. Such an investigation is facilitated by the elaboration of a household decision-making model interpreting decisions on household resource allocation (for example, on child quality vs. quantity, accumulation of human capital, labour-force participation, consumption patterns), or by analysis of quantitative information on these or various other aspects of family behaviour and welfare, such as education, housing, health, income, savings, work effort, wealth, mobility, security, and so forth. Success in the modelling of household decision-making provides a catalogue of potential intervention points aimed at modifying demographic behaviour. These intervention points are centred around parental calculations as to the perceived costs and benefits of children to them, or as to the costs and benefits of migration decisions to the family. Thus discussion can move from diagnosis to consideration of how public policy choices can differentially affect the utility calculus of households, hence demographic behaviour.

22. *An issue perspective.* A third organizing axis is centred on investigation of the role of demographic variables in affecting certain perceived "social problems" or "issues". Some examples are:

- Urbanization that is considered excessive
- Marginalization of certain social strata
- Increase in rural landlessness
- Persistence of social and economic dualism
- Emigration of trained manpower
- Increasing import dependence in key food items
- Increasing juvenile delinquency
- Deterioration of the natural environment
- Increasing inequalities of income

The initial vantage point from which such issues are viewed is again usually that of the central government interested in ameliorative action. However, the initial conceptualization of the problem is neither sectoral nor agency-oriented. In determining how any given problem is affected, the device of comparing impacts of alternative population scenarios is again applicable. If population effects are found to play a significant role in creating or aggravating a problem, population-adjusting policy proposals may emerge.

23. *A client group perspective.* A fourth organizing strategy contains elements of both the "sectoral" and the "problem" perspective, but is distinct from them in so far as the focus is directed to particular well-identifiable groups that are considered as requiring special attention for a variety of reasons, such as past or present subjection to economic discrimination and other social inequities, or a group's inability to secure for itself adequate amounts of certain goods or services to the consumption of which society attaches special importance. Government programmes may then be directed to providing for some of the needs (food, shelter, health care, fertility regulation services, education, income supplementation) of such "target" groups as defined by and seen from the perspective of government agencies. Alternatively, analysis of the nature of the problem may suggest other remedial policy approaches. A demographic component in such client group-oriented concerns is often present, although to a varying degree. Understanding how the group's own demographic behaviour (or that of outsiders) affects the welfare of the group in question is of possibly strategic significance in reaching correct policy conclusions. (The contribution of the policy analysis to the solution of the problem at hand may be, of course, indirect for example, it may provide a rationale for intervention using generalized rather than group-specific levers). Some examples of groups are:

- Pre-school children
- Women
- Elderly persons
- Persons in need of fertility regulation services
- Recent rural-to-urban migrants
- Families in the bottom 20 per cent of the income-distribution pyramid
- Slum dwellers

Numerous subdivisions of these and other similar groups (for example, orphan children, elderly persons living alone) are readily envisaged.

24. *An interrest-group perspective.* A fifth type of organizing focus is directed to the analysis of demographic factors that affect the status (with respect to economic welfare, political power, social prestige, social mobility, security, satisfaction of cultural values, and so forth) of important social groups that have a significant degree of common interest by virtue of their geographic residence, position in the social hierarchy, ethnic background, demographic characteristics, and various other criteria. This description superficially resembles the one outlined in the preceding paragraph. However, the primary perspective here, unlike the case of client groups, is not "from above", but from the groups' own distinctive vantage points. Analysis should seek to determine how group interests are affected by the group's own demographic behaviour and by that of others, what the groups's perceptions of these influences are, and what demographic responses are generated as a result. Further key differences between the interest groups under discussion and client groups lie in the degree to which interest groups are organized, or capable of being organized, hence their degree of participation in the political process that shapes public policy-including population policies. An understanding of the distribution of gains and losses experienced by important interest groups is crucial to the understanding of the social supports of demographic behaviour. In a dynamic perspective, such analysis should provide a better basis for forecasting future demographic trends and the likely direction of the political bargaining process concerning population policy. Potentially it should also supply the knowledge base on which new population-influencing social arrangement could be proposed that would be recognized by the affected interest groups as mutually advantageous. Types of interest groups (actual or potential) may be defined by a variety of criteria. Their relevance to policy analysis with respect to demographic matters may, of course, differ greatly, depending on the particular social, economic, and institutional setting. Examples are:

(a) Territorial groups
by natural areal divisions
administrative divisions
urban and rural strata

(b) Social class
e. g., landless agricultural labourers
small cultivators
better-off farmers
industrial workers

(c) Occupational groups

(d) Kinship groups

(e) Ethnic, linguistic, religious and similar groups, castes

(f) Demographic groups
e. g., by sex
position in the generational sequence

(g) Political/ideological groups

25. *A policy-instrument perspective.* The sixth organizing frame takes discussion of individual policy instruments, programmes, or their suitable combinations ("packages") as basic building blocks for country reports. The instruments may be already in use, in which case the discussion may consider the case for major quantitative or qualitative change (e. g., considering the merit of a major expansion of an existing programme), or assess options for improvement of performance (better organization, administrative reshuffling, better training for service personnel, and so forth). Alternatively or additionally, new policy instruments or programmes, the introduction of which may represent attractive policy options, would be discussed. Examination of costs, alternative administrative and organizational arrangements, the magnitude and distribution of expected benefits, and so forth, will then be the focal points of analysis – which may culminate in presenting specific programme proposals. The appropriate organization of such directly policy-centred reports may follow main subheadings such as:

(a) Fertility regulation programmes

Government-organized service

Subsidized private services
(subheadings depending on scope and character of existing or planned programmes)

Contraceptive development and manufacturing

(b) Measures directly affecting micro-level calculus on fertility, nuptiality, or migration decisions

Family allowances

Tax incentives/disincentives

Preferential allocation of public services

(c) Development strategies affecting demographic behaviour

"Demographic biases" in sectoral or regional investment policies

- education
- rural development
- health

Measures affecting women's economic roles and status

"Demographic biases" in income-distribution policy

(d) Population education, information

Programmes aimed at changing demographically relevant preferences and tastes

Inculcation of new social norms as to family size, child quality, parental obligations and roles, desirable marriage age, and so forth.

(e) Coercive policies

Administrative controls over internal migration and across the national boundary.

26. *A constitutional perspective.* A final organizing strategy may seek to retain the direct meshing of the analysis with policy concerns characteristic of the perspective outlined in the preceding paragraph, but would search for policy options on a higher systemic level than the tangible instrument and programme-oriented approach dominant in contemporary social policy. Demographic trends that are perceived as socially undesirable yet originate in rational choices at the family level reflect a flaw in societal arrangements that could have other remedies than steady accretion of governmental programmes, attacking surface manifestations of the structural defect with specialized corrective instruments. Population policy concerns may, instead, lead to consideration of broader non-specific "constitutional" issues involving the legal order and the nature of social institutions that govern the allocation of rights and obligations in society. Tracing the effects of policy decisions on such levels to demographic patterns is necessarily elusive, yet is a task that policy analysis in the population field should not ignore. The time perspective of such efforts would be, of course, typically much longer than is the case in specific programme and instrument-oriented policy discussions. Policy analyses under the present heading may include examination of the implications of broad strategic choices in development policy. What are, for instance, the demographic effects of choosing a particular policy-mix between two polar alternatives characterized by, *inter alia* (a) economic modernization through central planning, emphasizing accelerated State-sponsored industrialization financed by savings through control of prices and incomes but tempered by direct governmental effort to assure satisfaction of minimum basic needs and to achieve an equalitarian income distribution; and (b) a demand-pull strategy relying on the stimulus of rising expectations on effort, productivity, entrepreneurship and innovation, combined with acceptance of market-generated levels and structure of investment, employment, consumption and prices? Another example of fruitful investigation would focus on population-relevant implications of alternative systems of public administration, as characterized by the design and hierarchy of administrative units, their functions and their authority, and by the balance between permitted local autonomy and central control.

IV. Data needs and data bases

27. *Adequacy of conventional data.* Data bases potentially useful in the preparation of country reports have improved significantly in most countries during the past few decades. In particular, conventional demographic data (even though often deficient in quality, hence requiring specialized expertise for manipulation and proper use) should be generally sufficient for the purposes

of establishing the demographic background needed in country reports and for the preparation of population projections. Similarly, for some of the analytic approaches outlined in the preceding section, data are relatively abundant and well-organized. This is so in general when the analytic "cut" coincides with an existing administrative unit or a programmatic category, as in the case of sectoral perspectives or in the case of analysing established policy instruments and programmes. Even in these instances, however, the data tend to be less than ideally suited for the purposes at hand. Thus, existing programme data typically relate to inputs (such as budget expenditures, personnel, characteristics of the clientele served) or intermediate products (e.g., number of clients serviced) rather than final outputs. Also, qualitative characteristics of performance tend to be inadequately measured. As to household-level information, recent data-gathering efforts have resulted in significant improvement. However, micro-level data that adequately combine both demographic and socio-economic information remain rare, and linkage of separate data sets is difficult.

28. *Availability of special-purpose data.* Data that readily match the non-programmatic categories enumerated in section III are grossly inadequate. Nevertheless, a substantial investment of time and effort could go a long way in lessening these deficiencies even without collecting new statistics. Existing information is scattered in numerous sources, either collected as part of general statistical programmes (e.g., in population censuses and in surveys of agriculture, industry, employment, and consumption), or to serve particular administrative-budgetary needs. Thus, for example, data needed to elaborate "issue" or "interest group" perspective would have to be assembled from a variety of disparate sources. Such raw data usually also require considerable manipulation, adjustment, and ciritical analysis to produce estimates acceptable for analytic uses.

29. *Need for generating new data.* Advance determination of the proper analytic categories around which country reports in any given situation are to be organized should orient not only the effort of assembling already existing information but also the launching of new data-generating efforts. There exist special needs for data of the following unit:

(a) Data relating to the economic and social status and behavioural characteristics of particular groups. (Of paragraphs 23 and 24);

(b) Diversified survey data and data gathered from in-depth interview and observation techniques illuminating specific issues and problem areas. (Of paragraph 22);

(c) Household-level behavioural data that are more refined and qualitatively nuanced than in feasible to collect in conventional household sample surveys. Gathering such data requires application of anthropological techniques and longitudinal observation. (Of paragraph 21);

(d) Data on target-group perceptions of government programmes, e.g., clients' perception of quality and value of services offered. (Of paragraphs 23 and 24);

(e) Data permitting programme-impact analysis in a natural-experiment framework, that is, a framework matching communities or other suitable units that differ only with respect to the presence of a focused policy intervention.

V. Target groups and presentational issues

30. *Audience.* To whom should country reports be addressed? The policy-oriented emphasis suggests concentration on decision makers in government. However, if policy makers perceive population issues as politically overly sensitive or as heavily discounted by the public (because of uncertainties and the long-term nature of the problem), the truly strategic target group may shift toward opinion makers, the intelligentsia, and leaders of special-interest groups. Arguably, an even broader approach, directed to reach the entire adult population, could be an important objective. At the same time, the analytic content and the methodology underlying country reports should command the respect of the scientific community. Solutions must be found – e.g., preparation of more than one version – that can satisfy such conflicting requirements.

31. *Level of presentation.* Determination of the intended target audience must have a strong infleunce on the style and level of difficulty appropriate for the reports and, less directly, on such matters as length of presentation and use of communication media other than the written word. The lessons of past experience concerning such matters should be carefully assessed. In general, it may be suggested that a strategy that concentrates on producing a high-quality report and entrusts its "discovery" and its eventual penetration of public opinion to the intrinsic merit of its content will be more efficient than even the most skilful public relations-type effort.

32. *Policy stance.* Determination of the desirable balance in country reports between analysis and advocacy requires careful consideration. In general, it is important to distinguish between presentation of facts and objective analysis on the one hand, and interpretation on the other. Also, if possible, reports should present sufficient factual and background information to enable the reader to reach his or her own conclusions. Value judgments and assumptions should be explicitly spelled out, and the conclusions that would follow from different value judgments should also be explored. Even though reports should seek to avoid polemics it may be useful to reflect significant conflicting viewpoints.

(a) *Execution through government agency.* Assuming strategic location within the government, adequate in-house staffing, and flexibility to contract outside talent, the superior access to policy makers and to data sources provided by this solution has important advantages. Likely disadvantages are possible built-in biases for a programmatic-incrementalist approach to policy and for centralized administrative mechanism in recommending policy instruments. Ensuring adequate institutional protection from political and bureaucratic influences may also be difficult.

(Insert page 46, para. 32, line 10)

VI. Organizational problems

33. ***Approaches to organization.*** Numerous bases and mechanisms for preparing Country Reports could be envisaged depending on intended scope of the work, available budget, and available intellectual and institutional resources. Four main alternatives could be identified. Each may be fully domestic institution-based (the prefered solution) or rely in part on extra-national resources.

(a) *Reliance on commissions.* This was the device used in a number of large-scale population investigations. The commission conducts its own inquiry through specially recruited professional staff and through hearings, and may commission various studies and specialized reports from outside experts. The mandate is to deliver a final report to the sponsoring government agency. In preparing the report, the commission format is likely to provide easy access to government sources yet give greater flexibility in orgainzing and carrying out the work assignment than would location within an established government bureau.

(numbering of paragraphs that follow to be rearranged accordingly.)

(b) *Execution through management consultant-type arrangements.* This solution combines the advantage of access to government sources with the flexibility of an outside agency to assemble a non-permancent group of experts, operating under a clear mandate but exempt from the political limitations and pressures under which civil servants and government commissions operate.

(c) *Reliance on one or several research organizations, either university-based or independent.* This solution, in comparison with (b) above, can have the advantage of the greater detachment and broader perspective provided by the academic institutional environment. However, the inclination to approach policy issues as research problems within the conflicts of a particular discipline may greatly weaken the policy relevance of the final product.

33. *Sponsorship.* Official (governmental) sponsorship may be high on the list of organizational requirements ensuring access to information sources, a firm policy orientation, and early utilization of findings by policy makers. However, academic or research organizations, less subject to the political sensitivities that may constrain the government, may also take the initiative of assembling talent and securing resources for the preparation of country reports. Sponsorship by an international organization or by a multinational consortium of institutions or researchers is another possibility. The latter arrangement could also create a mechanism for efficient exchange of relevant international experience and, if desirable, provide a channel for financial or technical assistance.

35. *Staffing, budget, and time-table.* Consideration of these matters should be a function of the views that might emerge from discussions concerning the desirable goals, scope, and sponsorship of country reports, and the particular circumstances, needs and capacities of each country wishing to undertake such work. However, it appears that the current allocation of financial resources and analytical talent between policy analysis and conventional disciplinary research is lop-sidedly in favour of the latter. This suggests that the type of effort country reports represent ought to command high priority.

INTEGRATION OF POPULATION AND DEVELOPMENT IN LESS DEVELOPED COUNTRIES IN THE ESCAP REGION: PLANNING, RESEARCH AND RESEARCH NEEDS

Lin Lean Lim

I. Background

1. It was only in the 1970s that the relationship between population variables and development processes came into the limelight. Government development plans before the 1970s rarely mentioned population variables. During the last decade, however, various international forums have called for the integration of population and development planning. The World Population Plan of Action agreed upon at the 1974 Bucharest Conference recommended that:

> "Population measures and programmes should be integrated into comprehensive social and economic plans and programmes and this integration should be reflected in the goals, instrumentalities and organizations for planning within the countries".
>
> [United Nations 1975:179].

This call was reiterated at the 1984 Mexico City Declaration on Population and Development [United Nations 1984]. At the regional level, the Asia and Pacific Call for Action on Population and Development [1982] stressed that "an integrated approach should be evolved and followed in regard to population and related programmes of economic and social development".

2. The basis for these calls is the recognition that population and development are interrelated; population variables affect and are affected by socio-economic development variables, and population goals and policies are integral aspects of social and economic development aimed at improving levels of living and the quality of life of a country's population.

3. One purpose of this paper is to review the extent to which there has been effective integration of population and development planning in less developed countries of the ESCAP region, specifically in Bangladesh, Nepal, the Philippines and Thailand. On the basis of this review, the paper then goes on to identify the planning and institutional implications on the one hand, and the research and data needs on the other for more effective integration.

4. The paper begins by clarifying the nature of integration of population and development planning. Part of the reason why "integration" at the country level has not been effective has been because of the lack of agreement on or

understanding of what the term involves. We discuss various forms of integration and suggest an operational definition that could be applied to the overall process of development planning and policy and programme formulation. In the next section, we justify the need to emphasize the integration of population and development planning in less developed countries. In section IV, we examine the experience of integration in Bangladesh, Nepal, Thailand and the Philippines. Since this review section shows that both the institutional and methodological aspects of integration have not been comprehensive in these countries, the last two sections therefore offer suggestions for improving the development planning machinery and the methodological approaches for more substantive integration.

5. At the institutional level, the paper attempts to identify some of the key elements of the organizational arrangements that could promote integration in the planning process. Suggestions for the methodological aspects have to do with the introduction of analytical frameworks that can create awareness among both practitioners and researchers of the complex network of dynamics among the various components of population change and socio-economic variables. The possible application of these analytical frameworks to various planning perspectives and the practical implications for planning and policy and programme formulation will be the focus of concern. By identifying knowledge gaps, the analytical frameworks could also help establish priorities in research and data-gathering efforts.

II. Development planning, integration and institutional arrangements for the integration of population and development planning

A. The nature of development planning

6. Integration must be viewed in the context of development planning. By "development planning", we refer to the content of medium- or long-term national socio-economic development plans and the process by which the content is arrived at, that is, the planning process. The "planning process" encompasses all modalities by which national, regional and subregional development plans, policies and programmes are formulated, implemented and evaluated. The basic purpose of planning is to bring some degree of co-ordination (and therefore control) to the elements that play important roles in the process of development.

7. The major components of the planning process using functional criteria could be identified as [Hong 1981:4]:

Overall goal/policy setting;

Research and the creation of policy options;

Policy decision-making at both the national policy level and the more technical, operational and sectoral levels;

Planning, programming and allocation of resources;

Programme development, implementation and evaluation.

Since opportunities exist for integrating population factors into each stage of the planning process, we discuss them briefly below.

8. Operational policies and plans must reflect the more general, overall values of the society and its development orientations. At the most basic level, the ultimate objective of development planning is an improvement in the quality of life of the entire population. While there tends to be an emphasis on socio-economic targets, it is now generally accepted that planning should encompass the demographic aspects of development as well. There is the concern that development objectives should be more fully specified in terms of both socio-economic and demographic outcomes, whether viewed from an economic planning perspective or from a population planning perspective.

9. It is worth noting that national goal-setting is politics of the most fundamental sort. In democratic societies, while the most obvious goal setters are the high-level elected or appointed officials, non-governmental opinion, including the influence of special interest groups, and the international community and donor agencies can all influence the fundamental directions of national goals.

10. Once the broad long-term national goals and directions are set, the next step is to formulate policies and programmes designed to achieve these goals and objectives. In formulating policies and programmes, it is not only that needs and resources have to be estimated and projected. Certain assumptions have to be made about behaviour in the real world. The more comprehensive and accurate these assumptions are and the more closely they approximate the real world situation, the more effective policy and programme formulation is likely to be. With identified socio-economic and demographic objectives, it is important to have a common behavioural framework that traces the interactions between socio-economic and demographic variables. It is in this connection that research and the accessibility and usability of data are most significant.

11. Policy decision-making basically takes place at two levels – the national formal level engendered in a written document which is commonly a five-year plan; and the more operational policy level involving matters of a more technical, programmatic or shorter-term nature within the formal plan. To convert policies into plans for action or to provide the basis for implementation, programmes are identified and resources are allocated. Specific programmes and strategies are planned for each sector of the economy, depending upon the limitations of resources and their expected contribution to the achievement of both socio-economic and demographic targets. Since objectives always exceed available resources, a central function of planners in market economies is to decide how resources are to be allocated within the public sector and to influence how resources are allocated within the private sector. In such resource allocation decisions, the demographic impacts of various alternative socio-economic

development programmes should represent one of the criteria for selection from an array of policy and programme options.

12. Policies take on meaning only when they are implemented in the form of programmes or projects that can move the country toward its basic goals. Implementation is the task of sectoral or regional bureaucrats. After implementation, the final step is evaluation. Only through evaluation is it possible to determine the degree of impact that a given policy has had. Information from the evaluation is normally fed back to the system to help streamline and bring policies into better conformity with local reality.

B. The nature of integration

13. Because of the complexity of development planning, demographic factors inevitably enter into the planning process at some point, either explicitly or implicitly. But for there to be "full integration", there must be the explicit, substantive consideration of population concerns in development planning such that there is consistency, preferably mutually reinforcing effects, in the objectives and means of action of both the socio-economic and population policies. As stated by UNFPA [1983:1],

> "Integration involves considering systematically and taking into account explicitly in the planning process, population factors in so far as they significantly influence or are influenced by other variables relevant to development plans".

14. Forms of integration can be seen as ranging along a continuum. This is because integration has been taken to mean different things in the different contexts in which it has been applied.

15. At one end of the continuum would be "technical integration" where the use of demographic data such as in multisectoral models or other planning schemes is primarily a technical matter and neutral to contents and orientations of any population policy. In its most basic form, such integration might merely involve taking account of projections of size, age-sex structure and spatial distribution of the population in determining requirements for food, employment, educational and health services, housing and other basic needs. Within such a macro development planning perspective, demographic factors may be considered "technically" or "passively" integrated into planning when population projections are made independently of the development plan, and the plan is concerned at most with the development consequences of the projected population trends.

16. Proceeding along the continuum, we would have more "substantive" aspects of integration. At the programme planning level, for instance, four different aspects of integration have been noted [Herrin 1985: 3-4]. There is the "linking" concept of integration where family planning activities have been added on to existing programmes in health, nutrition, education or rural de-

velopment. Second, there is the "piggy-back" concept which refers to the use of established development programmes, such as agricultural extension programmes, to carry out family planning activities. The third type of integration is where a development project has been used as an entry point for the dissemination of family planning information and for motivational campaigns to increase the use of family planning methods; this has been called the "entry point" concept of integration. Finally, the "merger" concept refers to the merger of a specialized agency performing solely family planning activities with a larger established agency, such as the health ministry, which normally performs such activities as part of a broader range of activities. The point to note is that in all these forms of integration, the focus of population planning is only on family planning.

17. But at the other end of the continuum would be the comprehensive or wholistic approaches where the concern is with all components of population change and structure and where it is recognized that there are strong linkages connecting population with other aspects of the development process and that both population and development variables are endogenized. At both the macro and micro levels, the nature of development is seen as altering and being altered by, rates of fertility, mortality and migration.

18. In operational terms, substantive integration would mean that planners and policy makers must take account not only of ways in which proposed policies and programmes could accommodate a given population situation but also of how such policies or programmes might in turn affect the population situation. One requirement would be the co-ordination of all the policies which directly or indirectly affect the components of population change irrespective of their immediate purposes, that is, whether they are designed for the purpose of influencing or responding to population trends.

C. Institutional arrangement for integration of population and development planning

19. The 1974 World Population Plan of Action suggested that to ensure the integration of population planning in the development process, "a unit dealing with population aspects be created and placed at a high level of the national administrative structure and that such a unit be staffed with qualified persons from the relevant disciplines" [United Nations 1975:179]. The 1984 International Conference on Population in Mexico City again underscored the importance of institutionalizing the integration of population and development planning [United Nations 1984:38]. Other writers [Horlacher and others 1981: 205] note that while "strategies are needed to deal with problems of data, analysis, and synthesis perhaps most importantly there is a need for new organizational structures", with yet others [Bilsborrow 1985:358] calling for "stronger and more effective ones".

20. The point has also been made that a crucial factor determining the relationship between the simple existence of demographic information and its use in policy formulation and implementation is the set of institutions that have

been given some significant responsibility in this area [Heisel 1985:331]. Such institutions would seek out, select and act upon the implications of the demographic information available to them, and, as primary users of such information, would also exercise a good deal of influence over what kinds of information will be gathered in the country.

21. The World Bank [1984:158] acknowledged the role of institutions in translating political commitment into effective policy and stressed the importance of institutionalizing two main aspects of integration: (i) relating demographic targets to the policies and resources necessary to achieve them; and (ii) co-ordinating and evaluating the implementation of population policy. To consider the demographic benefits of a wide range of social policies in education, health, family planning, etc. and the complementarities among these policies is fundamentally a planning function that should be the responsibility of a specialized unit. For co-ordination and evaluation, especially as the scope of integration is extended, the World Bank notes that new institutional arrangements or greater joint efforts on the part of different existing organizations may be needed. While agreeing that it is not yet clear what institutional arrangements would work best, the Bank was, however, of the opinion that "sustained political commitment seems to matter more to the outcome than organizational structure" [1984:159].

22. Critical issues still need to be resolved in the institutional arrangements for integration, and until these are settled the supporting machinery may not be conducive to active integration. Some of the key issues in the institutionalization of integration of population and development planning have been identified as: (i) the appropriate location of a population unit within the structure of the central planning authority; (ii) the relative merits of establishing a specialized population unit as compared with fostering the planning capacity of sectoral ministries or sections of the central planning authority; (iii) the linkages to be maintained by the population unit with other planning-related and research-related or data-gathering units; (iv) the functions and mandate of the unit; (v) staffing for the unit; and (vi) the types of international assistance to be provided to these units.

III. The justification for integration

23. Underlying the stress on integration of population and development planning is the expectation that such integration is potentially beneficial to a country.

24. UNFPA [1983:1] describes the objectives of integration to be twofold: (i) to improve the general quality of development planning; and (ii) to promote awareness among both planners and policy makers of the need to adopt population policies consistent with development objectives. We can, however, spell out more clearly the potential gains from integration.

25. The integration of demographic considerations should promote more effective and realistic planning. As mentioned earlier, planning is based on certain assumptions about how the world works and how selective interventions might influence the process. By considering the dynamic, structural and behavioural relationships between population variables and economic and social variables, policy makers and planners may better understand what constitutes and drives the system. As succinctly put by Birdsall and others [1979:212], "policy design and government intervention require such a fuller understanding of a system which in operation involves demographic, economic and social phenomena".

26. Consideration of the interactions among demographic and socio-economic phenomena should lead to greater consistency in the formulation of the overall development plan. Integration would make it possible for policy makers and planners to formulate broad objectives and plan targets in the light of the prospective demographic situation and change therein and to have additional scope for reconciliation of objectives. The incorporation of population variables provides a third dimension in planning that makes it possible for planners to consider objectives and set targets not only in economic and social but also in demographic terms, with greater scope for reconciliation.

27. With integration, there could also be greater consistency in planning because it would encourage more serious attempts to reconcile short- and long-term socio-economic and demographic consequences of particular policies or programmes. Some indirect demographic consequences of socio-economic policies may only evolve in the longer term. In the planning process, there is a distinction between the period when decisions are made and the period when their consequences will be felt. Although resource allocation decisions are generally made and implemented in an annual time-frame through the government's annual budget, an integrated approach to planning may help ensure that current decisions are made with due regard to their longer-term results.

28. Integration of population and development planning should also contribute to the more efficient allocation of a nation's scarce resources. Policy makers and planners may be able to consider the population impacts of various alternative development policies as criteria for their selection from an array of policy and programme options. If in the real world, socio-economic and demographic variables are indeed interrelated, non-consideration of these interactions in planning may lead to misallocation of resources. Many development programmes have been known to fail because of unexpected intervening demographic consequences which may disrupt the achievement of desired objectives. These unexpected consequences represent added costs or benefits that should be taken into account when judging the relative merits of alternative policies or programmes and making resource allocation decisions. An integrated population-development framework could facilitate the identification of these indirect or unintended short- and long-term consequences. If we view the basic purpose of development planning to be the efficient allocation of a nation's scarce

resources, then integration would be important in so far as it promotes allocative efficiency.

29. Integration of population and development planning may also facilitate, on the one hand, specialization of function by different development agencies and on the other, co-ordination among development agencies in designing and implementing programmes. Herrin [1985:24-25] provides concrete examples to show how such co-ordination and specialization would be encouraged through an integrated approach to planning. With an explicit population-development framework, the direct and indirect effects of an agency's programmes would be clearly identified and accounted for in an early part of the planning process. Programmes of other agencies could then be designed or redesigned to take account of externalities arising from a particular agency's activities. This would allow agencies to more clearly define their scope of activities and to co-ordinate with others more effectively.

IV. Integration and institutionalization of population and development planning in the ESCAP countries

A. Integration of population and development planning in the ESCAP countries

30. To review the experience of integration of population and development planning in the less developed countries of the ESCAP region, we resort to content analysis of development plans, examination of population policies and programmes, and examination of the institutional arrangements for such integration.

31. Using these different bases for evaluation, it appears that Bangladesh, Nepal, Thailand and Philippines have all been aware of and have demonstrated some political commitment to the importance of integrating population and development planning. In all these four countries, the perception of the "population problem" is that the current rate of population growth is too high and the current policy is identified as one of full intervention to decrease the rate of population growth (see table 1).

32. The World Development Report 1984 [World Bank 1984:156] in its summary of the current state of population policy in twenty-six developing countries, showed that the majority of the ESCAP nations had (see table 2):

(a) Published census data and data from other surveys on fertility, mortality and contraceptive use;

(b) An official policy to reduce population growth expressed by high officials and in a national development plan, sometimes including specific demographic targets;

Table 1. Population size and growth: rates, perception and policies ESCAP countries or areas

	Population size	Rate of growth	Current perception of rate			Current policy		
	(thousands) 1980	1975-1980	Too high	Acceptable	Too low	Full intervention to increase/ decrease/ maintain	Some support to increase/ decrease/ maintain	No inter-vention
East Asia								
China	994 913	1.40	x			x		
Democratic People's Republic of Korea	17 892	2.42			x	x		
Hong Kong	5 106	3.00		x			x	
Japan	116 551	0.88		x			x	
Mongolia	1 669	2.89			x	x		
Republic of Korea	38 455	1.72	x			x		
Eastern South Asia								
Brunei Darusalam	228	6.84	..	..	..	..	..	..
Burma	35 289	2.44		x			x	
Democratic Kampuchea	6 747	-1.01			x	x		
Indonesia	148 033	1.74	x			x		
Lao People's Democratic Republic	3 721	2.39			x	x		
Malaysia	14 068	2.37		x			x	
Philippines	49 211	2.67	x			x		
Singapore	2 390	1.21		x			x	
Thailand	47 063	2.34	x			x		
Viet Nam	53 740	2.30	x			x		
Middle South Asia								
Afghanistan	15 940	2.54		x			x	
Bangladesh	88 164	2.82	x			x		
Bhutan	1 296	2.21			x		x	
India	684 460	2.02	x			x		
Iran (Islamic Republic of)	38 126	3.04	x			x		
Maldives	154	3.00		x				x
Nepal	14 288	2.30	x			x		
Pakistan	86 899	2.81	x			x		
Sri Lanka	14 815	1.71	x			x		
Oceania								
Australia	14 488	1.23		x			x	
Cook Islands	19	0.73	x			x		
Fiji	630	1.78	x			x		
Kiribati	58	1.53	x			x		
Nauru	7	0.81			x	x		
New Zealand	3 268	1.14		x			x	
Papua New Guinea	3 154	2.69	x			x		
Samoa	157	0.86	x			x		
Solomon Islands	229	3.45	x				x	
Tonga	97	2.01	x			x		
Trust Territory of the Pacific Islands	137	2.36	..	..	..	..	..	..
Tuvalu	7	4.45	x				x	

Source: United Nations Population Division 1984a.

(c) A population planning unit that integrates demographic projections into current economic plans and considers the effects of policies on demographic parameters;

(d) A high-level co-ordinating body to set population policy, oversee implementation, and evaluate results of multisectoral policies;

(e) Government financial support of private family planning associations;

(f) Public family planning services;

(g) Family planning outreach, including community-based distribution systems and/or field workers;

(h) Active use of mass media for information and education to promote family planning and small family norms;

(i) Publicly subsidized commercial sale of contraceptives.

33. It would seem from the above and from table 2 that Bangladesh, Nepal, Thailand and the Philippines have the ingredients for the integration of population and development planning. But although the elements are present, they have been on a piecemeal basis and provide the *appearance* rather than the *substance* of integration [International Labour Office 1984]. As cautioned by Jones [1982:29], "the number of linkages mentioned in development plans should not be taken as a clear indicator of the importance accorded to population-development relationships, because plans differ in their degree of sophistication, detailed arguments underlying given policies are not always spelled out in the plan document, and the size of the section devoted to population issues does not necessarily reflect the importance accorded these issues in practice".

34. As with the majority of other countries in the ESCAP region, the major concern in Bangladesh, Nepal, Thailand and the Philippines has been with high fertility levels and population growth rates that are not considered conducive to the achievement of broader development objectives. All these four less developed countries in the ESCAP region have singled out population as the critical obstacle to development [Stamper 1977:36]. But their development plans have not clearly elucidated the policies, aside from family planning programmes, that could be expected to help achieve population growth rate targets. It cannot be said that the available plans have adequately identified and provided for the demographic impacts of development policies or even the demographic factors underlying development problems such as rural development or urbanization.

35. The focus of population planning has been on policy interventions to modify fertility levels. Policy intervention efforts have gone beyond direct family planning activities to include not only information, education and communication programmes but also some integrated programmes with socio-

Table 2. Population policy indicators for selected countries with populations of 15 million or more

Region and country	Policy indicators												
	Demographic data	Political commitment	Institutions		Family planning				Incentives and disincentives			Birth quotas	
	A	B	C	D	E	F	G	H	I	J	K	L	M
Sub-Saharan Africa													
Kenya	x	x		x	x	x							
Tanzania, United Republic of					x	x							
Nigeria					x								
Zaire													
Sudan	x				x								
Ethiopia													
Middle East and North Africa													
Egypt	x	x	x	x	x	x		x	x				
Morocco	x	x				x							
Turkey	x	x			x	x							
Algeria	x				x								
Latin America and Caribbean±													
Colombia	x	x	x		x	x							
Mexico	x	x	x	x	x	x	x	x					
Venezuela	x				x	x							
Peru	x	x		x	x	x							
South Asia													
Sri Lanka	x	x	x	x	x	x	x		x				
India	x	x	x	x	x	x	x	x	x				
Bangladesh	x	x	x	x	x	x	x	x	x				
Pakistan	x	x	x	x	x	x							
Nepal	x	x	x	x	x	x	x	x	x				
East Asia													
China	x	x	x	x		x	x	x		x	x	x	x
Korea, Rep. of	x	x	x	x	x	x	x	x		x	x		
Indonesia	x	x	x	x	x	x	x	x		x			
Malaysia	x		x	x	x	x	x	x					
Thailand	x	x	x	x	x	x	x	x					
Philippines	x	x	x	x	x	x	x	x		x			

Source: The World Bank 1984.

economic and demographic components. But integration at the level of implementation has been in terms of scattered efforts rather than any systematic attempt encompassing the entire formulation process.

36. These scattered efforts at integration at the level of implementation are, however, worth noting. Active efforts to integrate family planning with other developmental programmes have very commonly been through maternal child health services. The concept of the rural level multi-purpose worker has also become increasingly favoured, with these individuals being charged simultaneously with implementation in several areas, including health, family planning, agriculture and rural development. Special integrated programmes incorporating socio-economic and demographic components have also been developed. Examples include the Integrated Rural Development Programme of the Philippines and the Small Area Package Programme of Nepal [United Nations Population Division 1984b: 142]. The Philippines and Thailand have also reported giving emphasis and importance to various socio-economic measures which are believed to affect fertility over the long term, including policies to expand educational opportunities, raise the status of women, improve nutrition, as well as to strive for a more equitable income distribution and for removal of poverty [United Nations Population Division 1984a: 131]. The Bangladesh Rural Development Board has jointly promoted fertility reduction and greater economic independence for women through the sponsorship of credit co-operatives for rural women since 1975. By providing training and income-earning opportunities, the programme aims to indirectly reduce women's dependence on child-bearing for their short- and long-term security. The co-operatives have also been used to transmit information about family planning, they provide a social setting that encourages acceptance and continued use of contraception [World Bank 1984: 175].

37. These countries have also broadened their population concerns. "Whereas integration has so far been more evident, for most countries, in terms of fertility and/or mortality policies with rural development and/or status of women policies, it is likely that in the future policies in the areas of spatial distribution and international migration will be more fully integrated, both at the level of intervention and in the development of institutional infrastructure" [United Nations Population Division 1984b: 143].

38. A whole range of problems associated with population growth have been mentioned by these countries [Stamper 1977: table 7]. Nepal, for instance, even in its 1970-1975 Development Plan, had already recognized rapid population growth as a factor contributing to slow economic growth, unemployment, increasing school-age population, high dependency ratio, pressure on health services, social services, housing and agriculture and increasing population density. In fact, Nepal was seen as the only country in the sub-continent whose official policy at the time explicitly went beyond control of population growth to cover such population aspects as immigration, rural-urban migration, geographical distribution of population and development of small towns [Desai 1978: 21-22]. The broad scope of Nepal's population policy has not, however,

been placed in the context of an integrated population-development framework. There has been little explicit consideration either of the specific development implications of these spatial components of population or of the population redistribution impact of development policies designed for purely economic ends.

39. In Thailand, preparations for the Fifth National Economic and Social Development Plan (1982-1986) included the appointment of an *ad hoc* Subcommittee on Population Planning which produced a substantial Population Plan noting interactions between population planning and other aspects of development and outlining detailed programmes to influence population trends. However, in the formal five-year plan document, population planning is embedded in a chapter dealing with "Development of social structure and distribution of social services", and in parts of the plan dealing with such issues as agricultural restructuring, urban development, and alleviation of poverty and regional income disparities, there is no mention of the demographic elements underlying the problems being addressed [Jones 1982:30].

40. In the development plans of all these countries, some aspects of population-development linkages have inevitably been discussed. But the discussion is less than coherent. What is important is not just addressing the issues of population-development interrelationships in the published plan but rather the extent to which these interrelationships represent the basis for policy or programme formulation. And certainly, in terms of actual policy and programme formulation, it is not at all clear that policies or programmes have been selected for their demographic effects which would not have been adopted for other reasons anyway. In fact, Jones [1982: 31] pointed out that treatment of the possible deleterious demographic consequences of policies adopted for other purposes has been particularly deficient, with the result that these unplanned consequences may have negated or overwhelmed the limited effects of policies consciously designed for demographic purposes. In the Philippines, for example, the Government's direct efforts in the 1970s at regional dispersal of the population had negligible effects because, at the same time, economic (exchange rate, tariff, tax, monetary) policies tended to concentrate industrial development and infrastructural investments on Manila.

41. It would appear from content analysis of development plans and evaluation of population policies and programmes that these countries have a long way to go to reach the comprehensive and substantive end of the continuum of forms of integration.

B. Institutionalization of population and development planning in the ESCAP countries

42. In terms of the organizational structures for integrating population planning into the development planning machinery, several countries in the ESCAP region have in recent decades established institutions specifically for such purposes. Thailand was one of the first to see the need for the establishment of a

population cell within the planning agency. The Population Planning Sector was established within the Manpower Planning Division (later renamed the Population and Manpower Division) of the National Economic and Social Development Board (NESDB) in 1969. NESDB is the agency with primary responsibility for development planning in Thailand. When the Royal Thai Government became concerned with the expansion of its population programme beyond the confines of family planning, it appointed the Committee on Population Policy and Planning, with the Population and Manpower Planning Division of NESDB serving as the secretariat for this Committee. The Committee is chaired by a member of the executive committee of NESDB, and is composed of senior government officials representing various ministries as well as several population studies experts from local universities, government agencies and private groups. Recognizing that co-operation among planning and research agencies is fundamental to the integration effort, a co-operative programme of research, publication and training was instituted jointly by the Population and Manpower Planning Division of NESDB and the Institute of Population Studies at a local university, Chulalongkorn.

43. In Bangladesh, institutional arrangements for integration are of much more recent origin. It was only in 1981 that the Population and Development Planning Unit was established within the Socio-Economic Infrastructure Division (SEID) of the The Planning Commission. The long-range objectives of the Unit were formalized as "to achieve harmonization of population and development trends in Bangladesh by taking account in the formulation of development policies and programmes both the economic and social implications of population variables and the impact of economic and social policies on demographic behaviour and trends" [Stoeckel 1981:7]. To assist the work of this Unit, a separate Advisory Council was formed to identify areas of research and the most effective ways to disseminate research findings so that they could have maximum impact upon policy decisions. The chairman of the Council is from the SEID while other members include representatives from various related ministries. More recently, however, the major institution responsible for formulating and implementing population policy in Bangladesh has been identified to be the Population Control and Family Planning Division [United Nations Population Division 1984b:142]. Unfortunately, information was not available on the structure or effectiveness of this Division.

44. The organizational framework for the formulation and implementation of the Philippine Population Programme has been characterized by a "complex network of agencies directly or indirectly concerned with population activities" [Pante and Morales 1980:73]. The Population Commission (POPCOM) is the body responsible for the formulation and co-ordination of population policies and programmes and serves as the focal point of all population activities. POPCOM was specifically created to serve as the central planning, policy-making and "umbrella" agency for co-ordinating and integrating the multiagency participation in the Population Programme. However, since POPCOM was primarily concerned with the family planning programme in the country, it was not well positioned to advocate stronger linkages between population and

socio-economic concerns. Such a more exacting task, it was felt, would be more effectively performed by the body which has overall responsibility for planning and policy formulation, that is, the National Economic and Development Authority (NEDA).

45. In 1981, the Population and Development Planning and Research Project was launched by NEDA with three main components: (i) the creation of institutions that could co-ordinate, guide and support population-development planning integration efforts; (ii) the intensification of training at the national and regional levels in population-development planning concerns; and (iii) the strengthening of research to provide information that could be used as an input for integrated planning. Since then, the Project has made significant progress with respect to each of these three components [Herrin 1985:28]. In terms of institution-building, Population/Development Planning Units (PDP Units) have been set up within the NEDA central office as well as in three NEDA regional offices. In addition, there were plans for 3 area research and training centres and 12 regional research and training centres to be established on the grounds that such regionalization efforts could be more sensitive to local needs and circumstances.

46. The concern with population and development in Nepal is supposed to be relatively long-standing. As early as 1971, the Center of Economic Development and Administration in Nepal had organized a seminar bringing together government leaders and researchers on this topic. But in terms of formal institutional arrangements, integration is still in an embryonic stage in Nepal. Even the organization of basic family planning services still has a long way to go, with unmet needs for contraception among 22 to 27 per cent of eligible women and lack of knowledge of modern contraceptive methods among half of currently married women [World Bank 1984:174].

V. Some institutional lessons

47. The conclusion Jones [1982:33] arrived at in his evaluation of the institutional arrangements for integration in Asian countries was that although progress had certainly been made in integrating population planning into development planning as an ongoing activity of planning agencies, "by and large, one would have to judge that progress has been disappointingly slow".

48. This slow progress can be explained by a number of factors. By identifying the institutional factors which have impeded effective integration, we might shed some light on the issues raised in section II.3 and draw some lessons for improving the planning machinery. We should, however, preface our discussion by making it clear that we cannot attempt to suggest an institutional model that would fit all countries. Obviously Bangladesh, Nepal, Thailand and the Philippines have differences in national objectives and priorities, as well as in administrative structures and the nature and seriousness of demographic problems. Their organizational structures must reflect these differences and must also evolve as part of an ongoing process of co-ordination among various components of their national government. But we can make some general observations.

49. Firstly, the experience of these and other ESCAP countries has illustrated that a strong identification with the family planning programme can be a great hindrance. In the Philippines, for instance, the close identification with the family planning delivery service limited the ability of POPCOM to assume a broader co-ordinating role in national development planning. Where population planning is viewed as a sectoral activity narrowly focused on family planning and where family planning programmes make substantial claims on national budgets and trained human resources, "government agencies with other sectoral mandates – in agriculture, labour, education, or housing, for example – may view 'population' as a competing sectoral concern rather than as an underlying social process that influences and is influenced by all development policies" [Stoeckel 1981:9]. For population policy and development planning units to exercise their intended pervasive influence in national development planning, it is essential that they dispel the widely-held notion that they are solely concerned with family planning. In this context, the very name of the Bangladesh institution responsible for integration – Population Control and Family Planning Division – may perpetuate this misconception.

50. A narrow sectoral perception of equating population planning with the delivery of fertility regulation services may be reinforced by the establishment of a single population planning unit within the development planning agency. A separate population unit, even if it draws its membership from the sectoral ministries, may not only find it difficult to generate concern for population issues among the sectoral ministries but may also find itself the victim of inter-ministerial rivalries over assigned fields of action [Horlacher and others 1981: 212].

51. On the other hand, those countries that have established centralized population units or divisions within their planning agency claim that the advantages accruing from such centralization include economies of scale in the costs of training, personnel and infrastructure development (all of which are in short supply in developing countries), as well as the advantages of intellectual exchange, organizational coherence, and clear policy direction within a critical mass of trained and committed staff. A centralized unit is also expected to be most appropriate for performing economically and efficiently the tasks of preparing population estimates and projections for use in sectoral planning.

52. Horlacher and others [1981:213] advise that the appropriate location for a special population unit is within the central planning agency, "otherwise, the necessary technical competence is likely to be lacking, responsibility diffused and the incorporation of demographic factors into planning may result in little more than general statements in the planning document. Such a unit could be formed by strengthening a section of an existing unit (e.g. manpower)".

53. Some of the countries that we have examined have set up their population units within a division of the central planning agency that is perceived to be most relevant. In the Philippines, for example, the Population/Development Planning Unit is within the Policy and Planning Office of NEDA, while in Bangladesh, it was located within the Socio-economic Infrastructure Division of the Planning Commission.

54. But a potential danger of building the population component into an existing division may be that other divisions may then view population as simply a component of the traditional areas of the division and thus be tempted to ignore its importance. To the extent that effective integration of population and development planning has to be based on awareness of population-development interlinkages within all affected sectoral ministries and on the consideration of demographic consequences in the evaluation of sectoral plans, a centralized population unit located within the planning agency might not be conducive to the achievement of these operational aspects of integration. It might therefore be preferable in the long-term to decentralize the capacity and responsibility for population planning among sectoral ministries [Population Council 1980:5] or at the regional level. Philippine efforts to set up regional Population/Development Planning Units is an example. However, where such units are developed in the ministries or at the regional level, it is crucial that close liason be maintained with the population planners in the central planning agency to ensure that the different ministries do not use different population projections and to provide technical back-up and specialized expertise to the ministries when required.

55. A related issue is the link of the population planning unit with research institutions. Government agencies themselves are rarely designed for long-term research. The transient nature of many of the staff in the planning agency and the short-term nature of the planning process with the urgency of deadlines preclude a long-term focus on research for planning purposes [Hirschman 1981: 565]. The option of setting up an independent population research centre which could work closely with and act as a feeder service for the population planning unit has been suggested. But it is necessary that the population planning unit also maintain close ties with academics and other research institutions to tap the results of their work for more effective integration. In most of these countries, there is as yet no formal system of research dissemination and utilization. Close co-operation between the planning unit and research organizations would help ensure that research addresses issues of concern to planners and results are made available at the time they are needed, and therefore that research would be more policy or programme oriented and useful to planners.

56. It is also worth remembering that it is not just academic institutions and research organizations that collect data or conduct research in population-related issues. A large number of government and quasi-government organizations also do so in the normal course of their functions. But more often than not, the exercise tends to be only in-house, giving rise to duplication of efforts on the one hand, and limited usage of available information on the other [National Family Planning Board Malaysia 1981]. Efforts should therefore be made towards greater co-ordination to cut down duplication of efforts, to compile available information more systematically and to have arrangements for capable researchers from academic or research institutions to have access to primary data of these government and quasi-government agencies so that they can undertake useful analyses of untapped data.

57. We have seen that the location of a population planning unit within the central development planning agency is important. But it has been pointed out that the level at which the unit is located may also be a factor [Bilsborrow 1985:358]. The high-level population co-ordination committee in Thailand was expected to not only ensure co-operation among planning and research agencies in all areas of development planning and programme implementation and evaluation but also to provide prominence and high-powered support for integration. But Jones [1982:38] cautioned that the likely dilemma of a committee with top-level representation is that it may almost never be able to meet because of the very tight schedules of most of its members (Jones cites the case of the Population Policy Co-ordinators' Committee of the Republic of Korea which never met after its first organizing meeting).

58. In terms of the functions and responsibilities of a population unit, it is worth noting that none of the units that we have examined have decision authority over plans submitted by sectoral ministries, nor are they responsible for the allocation of funds to these ministries. Their ability to influence sectoral investment decisions may therefore be very limited. One reason for the slow progress in effective integration may be that "population policy and development planning units are therefore required to be advocates of a particular and novel perspective on national development planning, but cannot exercise the traditionally most effective bureaucratic lever: access to or control over budgetary resources" [Population Council 1980:14].

59. Another common problem faced by population policy and development planning units is that of limited staff capacity. The importance of training and the role of international agencies in providing such training have been widely recognized. NEDA in the Philippines has implemented several training activities. Herrin [1985:29] emphasized that what is needed from these training programmes is not only for planners and programme managers to gain familiarity with population-development interactions, but more importantly, for them to gain confidence in their ability to analyse various dimensions for these interactions as a standard activity both in viewing the entire development process and in formulating policies and programmes. UNFPA [1985:2, 5] suggested that training activities might include assisting planners in using techniques for integration such as socio-economic development models and population projections, strengthening the technical capacity of the staff of the population unit and alerting the sectoral ministries to the linkages between population and their own sectoral activities. UNFPA also identified a need to train three groups of individuals: senior officials with decision-making roles; professionals, technicians and academics; and other mid-level governmental officials.

60. An organizational weakness of a population unit could be that government agencies are rarely designed for long-term research, and the planning process itself is also essentially short-term in nature, subject to the tyranny of a succession of deadlines for formal plans and the preference of political leaders for immediate results. But the nature of population concerns are often long-term. The implications of demographic trends and processes assume greatest import-

ance over the long term, but they may never become apparent if planning is seen as a short-term exercise and perspective planning is not emphasized. For effective integration, it is necessary that a country develop perspective plans to supplement medium- and short-term ones.

61. But perhaps the greatest stumbling block is that policy makers and planners lack data and information on critical aspects of population-development interrelationships. Even when they are aware of the importance of integrating population and development planning, they may not know how to go about actually integrating. The act of establishing a population unit alone does not provide an operational basis for achieving the desired integration. It is in this context that the importance placed on research and data collection is justified. Not only would the research activities (which include three important aspects – preparing estimates and proejctions of demographic levels and trends, ascertaining the nature and strength of demographic and developmental interactions and conducting various forms of policy analysis) help to provide a methodological basis for operationalizing integration of population and development planning, but would also overcome the credibility problem for a population planning unit. Without convincing analytical evidence of population-development interlinkages, the population planning unit may find it extremely difficult to persuade political masters or the disbursers of funds of the potential but long-term benefits of such integration.

VI. Methodological approaches

62. Since we have indicated that a major impediment to integration is the lack of methodological frameworks of population-development interrelationships, we attempt in this section to consider some methodological approaches that would show how population and socio-economic variables are interlinked and would draw out the practical implications for various planning perspectives.

63. A variety of methodological approaches exist for integration of population and development. The variation is in terms of both complexity and level of integration, as in the continuum described earlier.

64. The simplest form of integration, as mentioned, is the independent estimation of demographic rates and their use in projections. Planning in most developing countries typically includes consideration of the development consequences of the projected population on the need to create jobs, build infrastructure, provide schools, health clinics, etc. But even in such passive integration, the role of population factors can be made much more evident by preparing alternative sets of projections and comparing the costs and/or the ability to achieve plan targets expressed in terms of population coverage rates. "This can help sensitize not only planners but officials in the relevant ministry (e.g. education, health, agriculture, labour, social security) to the unavoidable effects of population growth. This should in turn enhance their interest in effectively integrating population into sectoral planning" [Bilsborrow 1985: 360].

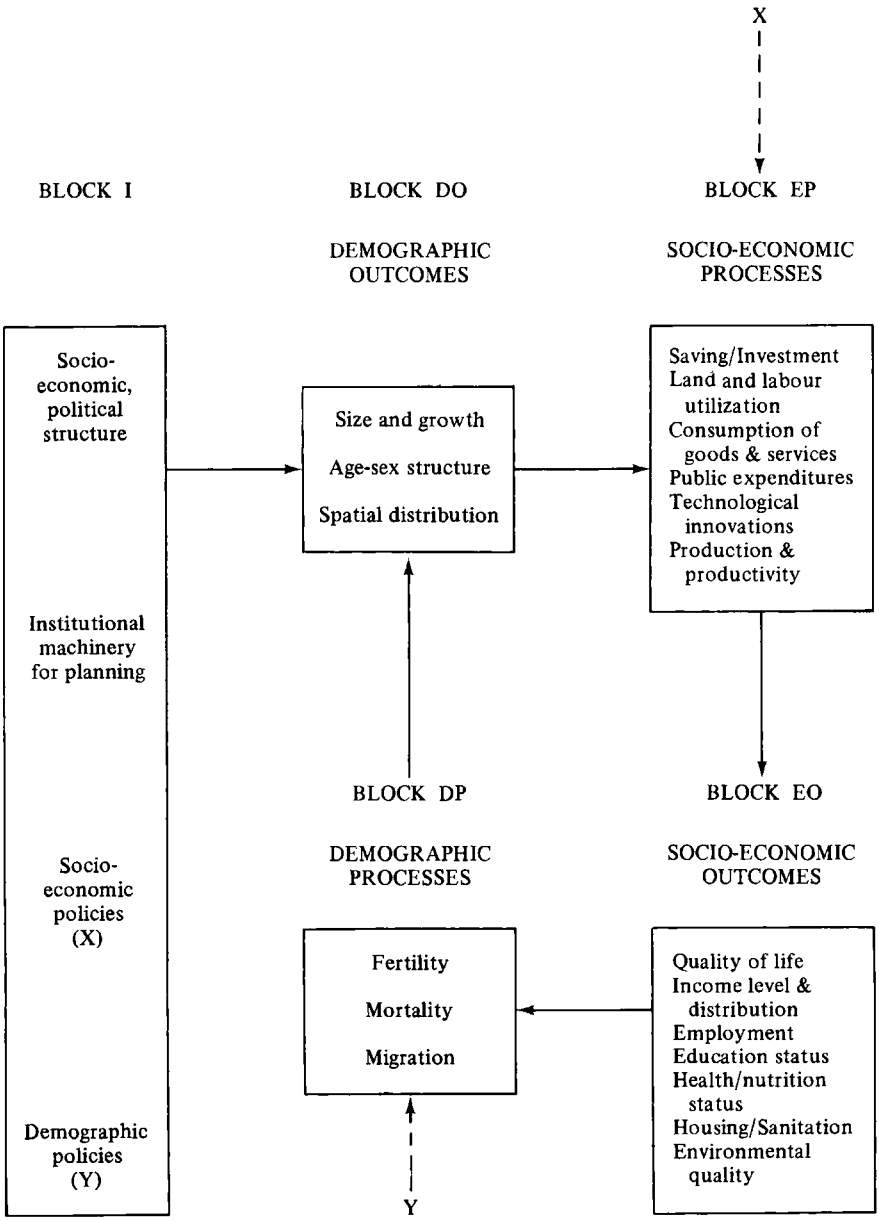
65. Our main methodological suggestions, however, have to do with more substantive integration at two levels – macro planning and micro or programme/project planning.

66. At the macro level, since the interactions are so many and varied, the only way they could be comprehensively viewed would be through the construction of large-scale simulation models in which population trends are integrated as endogenous factors, influencing and in turn influenced by socio-economic development, with extended chains of causation, appropriate feedback loops, spin-off effects and lag effects. The list of such models that have been developed in the last decade include the General Electric Company's TEMPO-I and TEMPO-II, the University of Illinois' Population Dynamics model PDG/PLATO, the International Labour Office's BACHUE models, and the United States Bureau of the Census' Long Range Planning Models (LRPMs). There was a great deal of debate in the 1970s over the value of such models for development planning [Kelley 1974; Arthur and McNicoll 1975; Rodgers and others 1976]. In more recent reconsiderations of the value of these macro economic-demographic models [see, for example, United Nations 1981], the evolving conclusion seems to be that while they are undoubtedly useful for raising the level of understanding of population-development linkages and for identifying areas of needed data collection and research in particular countries, they are generally "too complex to be considered "planning models", and require too many scarce human capital resources over too long a time period to be practical for the vast majority of developing countries" [Bilsborrow 1985:362]. Such models will always be limited by the accuracy with which the functional relationships are understood and specified.

67. We focus therefore on the functional or behavioural relationships. At the macro level, the behavioural model which could serve as a framework for viewing socio-economic and demographic interrelationships can be depicted as in figure I. The demographic processes of fertility, mortality and migration (Block DP) determine the size, growth, age-sex composition and spatial distribution of the population (Block DO) which in turn affect economic development and social progress, including consumption and savings, public expenditures, land and labour utilization, technological innovations, and trade (Block EP). The operation of these socio-economic processes (EP) as they have been indirectly affected by demographic impacts or as they are directly affected by public socio-economic policy interventions (as depicted by the broken arrow, X) would determine the socio-economic outcomes (Block EO). These socio-economic outcomes (EO) would, in turn, affect the processes of demographic change (DP). Demographic change could also be directly influenced by specific population-influencing policies, such as family planning, health or population resettlement programmes (the broken arrow Y).

68. The nature of relationships described in the framework is therefore interlinking or circular. But explicit expression in terms of discrete blocks is useful for analytical purposes to distinguish between determinants and consequences and especially for highlighting specific components and consequences and especially for highlighting specific components of the population-development dynamics in relation to the role of public policy.

Figure I. A simplified framework of population-development interrelationships



Adapted from: Herrin 1985:10, 12, and Lim 1981:12

69. Looking at the framework more specifically from a practical planning perspective, Block DO identifies those population factors that are likely to affect the attainment of development objectives reflected by the socio-economic outcomes in Block EO. The nature of causation points to areas of policy intervention or modification, X, needed in Block EP to take account of the resulting population characteristics in future planning for development. In addition, the observed consequences of demographic trends on the areas of concern could generate policies and programmes, Y, that directly affect the demographic changes themselves, with the aim of minimizing their adverse influence on the attainment of the broader development goals. Such policy and programme formulation and adjustments would, of course, be within the constraints set by the institutional and environmental factors in Block I. But even in Block I, basic institutional reform of the organizational structure or planning machinery and attempts to influence constituent groups, such as political parties as interest groups, could be considered.

70. Figure I shows us that development objectives must be specified in terms of both socio-economic and demographic outcomes. Economic and demographic policies must be formulated as components of the total development policy package to influence both socio-economic and demographic outcomes. And planning must be undertaken with a longer time-frame to take into account interactions which might not be evident in the short-term.

71. The concept of integration could also be applied to sectoral planning addressing specific development concerns such as employment,education, health, etc. In fact, it has been recommended that a focus on particular sectors or behavioural interrelationships may be more fruitful for practical planning purposes in that (i) the sector or variable of particular policy or planning interest can be concentrated on, facilitating a better analysis, in lieu of spreading limited resources too thin; and (ii) the results can be more easily communicated to planners and policy makers, thereby standing a better chance of being used [Bilsborrow 1985: 362-363].

72. What is needed for sectoral integration is a more specific formulation of the sectoral objectives and, correspondingly, a more detailed specification of socio-economic and demographic interlinkages as they relate to the determination of the specific sectoral outcomes. One could, for instance, be concerned with the socio-economic and demographic determinants of employment [see Herrin 1985: 14 for such a framework]. Or alternatively, modelling the causes and consequences of rapid urbanization or industrialization could also produce useful insights for policy makers and planners.

73. It is at the micro or working level – in terms not only of sectors but programmes and projects where the actual day-to-day work of development is occurring – that integration may be most important. The need to apply integrated population and development planning at the programme or project level has been increasingly stressed [Robinson 1975; Miro and Potter 1980; Barlow 1982; Harbison and Robinson 1985; International Labour Office 1984; Bilsborrow and DeLargy 1984; Bilsborrow 1985; Herrin 1986].

74. The integration of population and development planning at the programme or project level requires consideration of the same three basic elements that were identified for macro and sectoral planning, that is the development objectives, the behaviourial relationships between population and development, and the socio-economic and demographic programmes or projects designed to achieve these objectives. In designing programmes or projects to achieve certain objectives, certain assumptions are made as to the behaviour of the target population which are normally households or individuals.

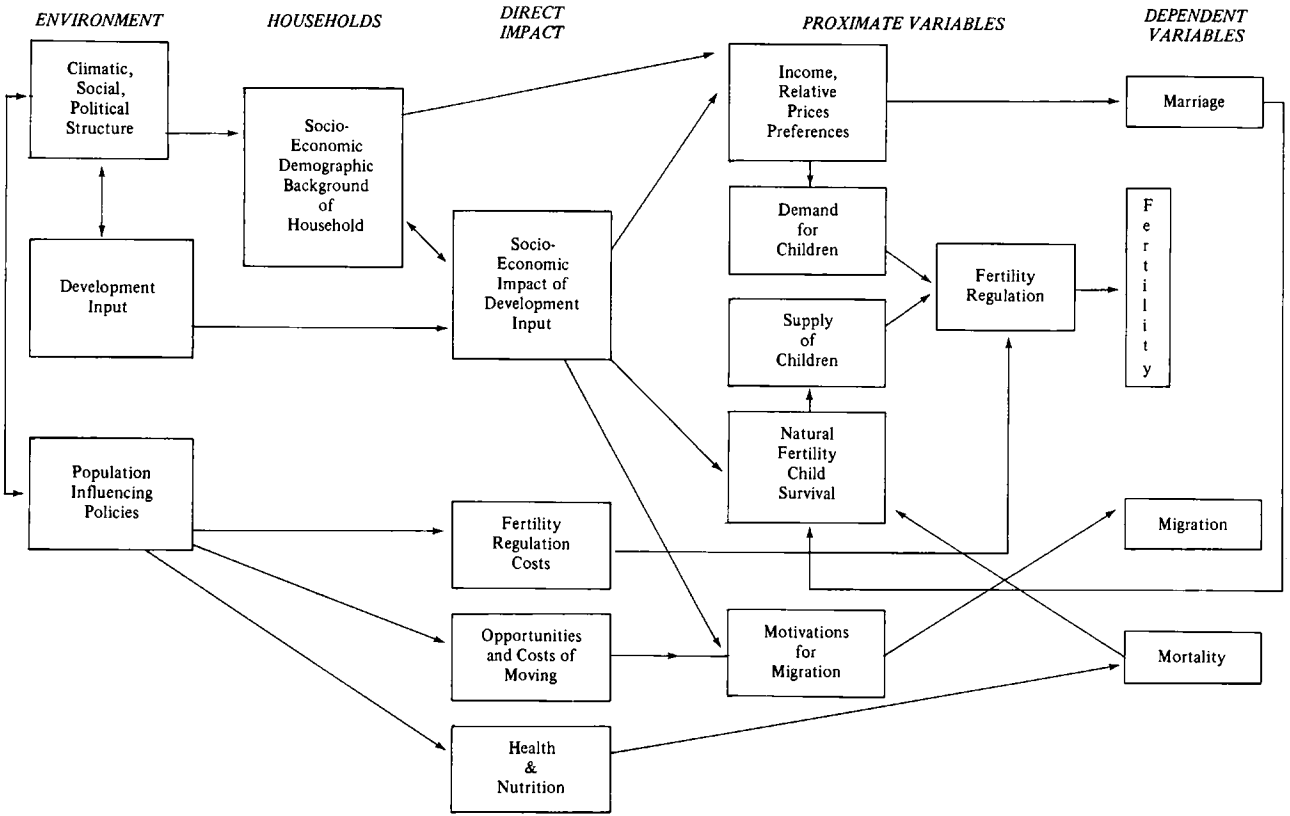
75. For planning to take into consideration the links between a development project and demographic change, it is important to treat the household or family as the focal unit of analysis [Bulatao and Lee 1983; Birdsall and others 1979; Farooq and Simmons 1985]. The household is the focus of economic and demographic decision-making. It has been found methodologically useful, particularly for developing countries, to view the family as the locus of economic decisions on production, consumption, savings and investment and the transfer of wealth. What lies behind shifts in demographic schedules is also the sum of various decisions made within households – to marry, have children, move, and so on. The crux of the relationships between population and development at the micro level is that household decision-making does not take place in a vacuum but is influenced by structural change in the environment in which the household operates. Government policies or programmes will affect these structural changes in the environment.

76. A general framework for viewing socio-economic and demographic interactions at the household level is depicted in figure II and described below in terms of its main components. This framework would be especially useful for viewing the impact of a development programme or project with stated socio-economic aims on demographic behaviour, in particular on fertility behaviour.

77. The impact of development programmes or projects can be envisaged as in figure II to be mediated through several intermediate levels. Within such a framework, changes in demographic behaviour are looked upon as part of a wider set of "multiphasic" responses of households or families to their changing environment. The dynamics of change can be identified in terms of five main components: (i) the development programme which is treated as an exogenous shock to the environment or community; (ii) the socio-economic and demographic background characteristics of the households that represent the target population of the development input; (iii) the direct socio-economic impacts of the development programme or project; (iv) the proximate variables that directly affect demographic behaviour; and (v) changes in the demographic components of marriage, fertility, migration and mortality. In the framework, integration of the development programme or project with demographic change is expected to be through three main sets of endogenous variables moving from left to right in the diagram.

78. The first block in our micro framework duplicates the macro framework to show that development and population interact within a given social system,

Figure II. The impact of development on demographic variables



economy and policy with a particular set of organizational and institutional structures and cultural norms. It is important when dealing with different countries that the environmental or community factors that provide the context or setting within which the development project operates and in which households make their decisions are taken into account. The community or general environment can be influenced or altered by "exogenous shocks" introduced into the system. Some of the exogenous shocks to the environment would be in terms of government intervention, for example, the provision of physical infrastructures such as roads, irrigation, electrification, and social infrastructures and services in education, health, nutrition, family planning; agricultural programmes, including land reform, rural credit, input subsidies and price support; and industrial development programmes for both small and large-scale enterprises. For integrated planning, it is useful to distinguish between direct "population-influencing" programmes and those development inputs with stated non-demographic objectives but that indirectly affect population changes.

79. Socio-economic and demographic programmes are expected to affect the structure of opportunities and constraints facing the households either directly by increasing household resources and access to basic economic and social services, or indirectly through the community by increasing community resources available to the households [Freedman 1974; McNicoll 1975; Caldwell 1976; Anker 1977; Anker and Anker 1982]. The households are then expected to respond to these changes in a manner they perceive will improve their present economic and social welfare.

80. How the household responds to a changing set of opportunities and constraints is expected to be greatly influenced by its socio-economic and demographic background – its composition and type, the roles and interests of individuals in the family, areas of decision-making, production and organization between generations and sexes within the family, and so on. The framework views the household as a decision-making unit with varying access to resources (material, human and time), options and strategies. The household is expected to actively respond or react to changes in the structure of opportunities and constraints it faces in terms of decisions regarding consumption and savings, investment in physical and human capital, labour utilization, marriage, fertility and migration. While such a behavioural model normally assumes rational decision-making on the part of the household seeking to maximize its utility or welfare, it might be useful for programme formulators to bear in mind that economic rationality may not be the only basis for decision-making and that other influences, such as cultural norms or practices and the role of subjective preferences, might influence the socio-economic and demographic outcomes.

81. From a planning point of view, the framework makes a useful distinction between the direct or intended impact of the development programme and its indirect or ultimate effects on demographic behaviour. The implementation of a development programme or project (such as rural electrification or an integrated agricultural development project) would have a direct impact on environmental characteristics and household characteristics simultaneously and in interacting

ways. At the community level, an integrated agricultural project, for example, would directly influence changes in agricultural production and productivity, employment patterns, land ownership and utilization, agricultural technology, income, and so on. For those households that participate directly in the development project, the direct impacts could be traced through changes in the household production structure, in the demand for household labour, income, roles and time allocation of household members, consumption and savings, and so on.

82. The proximate determinants block in the framework is intended to show the intervening factors or mediating mechanisms through which changes in the socio-economic variables block affect demographic behaviour of the household. Focusing on fertility, for example, the socio-economic infuences at the household level would operate through the supply of children, the demand for children, and fertility regulation both as a means of effecting choices and as a factor in choice. The supply of children, that is, the number of surviving children a couple would have if they made no deliberate attempt at limitation, depends directly on the levels of natural fertility and child survival and indirectly on the background variables which influence these levels. While the basic biological elements of natural fertility and background variables [see Davis and Blake 1956; and Bongaarts 1978 and 1983] can be considered as outside the influence of population and development planning, child survival rates could be affected by development projects that improve health and nutrition or raise income levels. But it is largely through the demand for children that the impact of the development project on demographic behaviour at the household level is most likely to be mediated. In the framework, the demand for children is portrayed basically from a benefits-costs perspective of the perceived values and disvalues of children subject to the tastes or preference structure and resources (income and time) of each household. A development project could indirectly influence the perceived values and disvalues of children and also the resources available to a household. Fertility regulation is a function of the costs (monetary, time, psychic and social) of both obtaining and using contraception or abortion. These costs depend on the attitudes towards family planning on the one hand and the degree of access to fertility control on the other. In both cases, government intervention would be important for making available free or subsidized family planning services and for providing information and education that could change attitudes towards family planning.

83. The final block in figure II is intended to indicate that it is important for integrated population and development planning to remember that in the long run, the various demographic components are not only interactive among themselves but also in turn affect other decision-making areas.

84. The micro level relationships between population and development have been described at some length to illustrate that, given these interrelationships between various household and community or environmental determinants of behaviour, population and development planners can design various programmes or projects with various "entry points" into the system of linkages

with a view that their combined and complementary impacts all lead to the desired behavioural outcomes.

VII. Research and data needs

85. To take up the methodological suggestions for integration of population and development planning at various levels will obviously require a great deal more quantitative and qualitative data than is currently available in the less developed countries of the ESCAP region. It has been acknowledged that an important part of the blame for slow progress in integration can be placed on the paucity of data, the lack of research and/or the limited use of research findings.

86. It has been noted here that in many countries in the ESCAP region, the availability and quality of demographic data have significantly improved in the recent past. Studies on the determinants and consequences of demographic trends have likewise accumulated. Unfortunately, to date, much of the research and data has had limited impact on policy formulation and planning at the national level, Available analyses and presentation have tended to be abstract, highly technical or academic, without addressing the more immediate operational concerns of policy makers and planners. In their current forms – as scientific reports of varying quality and sometimes contradictory conclusions, or as discrete, scattered pieces of work that are not easily accessible or understandable to policy makers and planners – such research has contributed litte to effective integration of population and development planning. What is required in this context is to establish closer formal and informal links between planners and policy makers and researchers to ensure on the one hand that research is more policy-oriented and relevant to planning concerns and that, on the other hand, that policy makers and planners have access to and understand research results and also that they can indicate directions for researchers to explore.

87. From a data or information perspective, two categories of population variables are necessary for integration – those that are primary population policy variables and those which explain or support policies in other economic and social spheres. The first category would include the variables relating to the size and growth of population, fertility, mortality, internal and international migration and the age and sex distribution of the population. The second category comprises a variety of structural or behavioural data that link population with specific economic and social factors. Integration of population variables into development planning requires that both categories are interconnected by adequate policy measures with the corresponding components of economic and social development.

88. In relation to these data needs, three important research activities necessary for integrated planning can be identified:

(i) Preparing estimates and projections of demographic levels and trends;

(ii) Ascertaining the nature and strength of demographic and developmental interactions;

(iii) Conducting various forms of policy analysis.

89. While there has been a quantum jump in the quantity, and often also in the quality, of demographic data in the past decade in most developing countries, there is still significant room for improvement. There is need to improve the precision of such data, to achieve appropriate levels of disaggregation, to ensure frequent updating and timely availability of data, and also to encourage greater analysis of existing data.

90. In so far as the quality of current planning decisions is extremely dependent on the quality of available population projections, the need for accuracy in forecasting population trends is stressed. Suggestions for improving basic demographic data have been widely made [Jones 1982:41-42; UNFPA 1985; Miro and Potter 1980]. These suggestions include the development of demographic accounting frameworks or matrices to provide planners with estimates of the numbers of persons with specific characteristics, and the design of projection routines suitable for use on computers. It is also important to note that very often in developing countries there is a long time-lag between the collection of data and the release of the data. As timeliness of data is of the utmost importance for use by planners, improvement in this area is necessary. Part of the problem could be related to the fact that where such data collection is routinely done by a feeder service organization, such as the department of statistics, rather than the population unit itself, the department of statistics often attempts analysis which takes time or it may not make available data in formats that suit the purposes of planners. The drawing up of standardized formats for the types of information needed for planning purposes would help the feeder service to more readily provide the data needed.

91. Lack of disaggregations in terms of local/district-level data and also for socio-economic groups is also serious. There is a need for population projections disaggregated by rural, urban, regional or subregional areas. Projections not only by sex and age but also of the number in identified socio-economic groups, such as poor groups or minority groups, may all be necessary. To make investment decisions (since in most cases, investment decisions do not relate to the entire population but to projected changes in components of the population), to identify target groups for development programmes or projects and to analyze policies or evaluate programmes, all require such disaggregated information.

92. As internal migration has greatly escalated in the past decade in these countries, it is extremely important to improve methodologies for making projections at the subnational level by taking into account patterns of internal migration.

93. In the collection of basic demographic data that go into population projections, very often consideration has not been given to how additional questions

could be incorporated to provide valuable information. Bilsborrow [1985:365] noted that while the type of data collected in household surveys is useful for preparing population projections, it rarely provides the additional inputs needed for integrated population-development planning. Much more socio-economic information on households is desired, and for this a multi-purpose survey approach may be more appropriate.

94. To collect the types of behavioural data mentioned, it is necessary to include in household survey questionnaires: (i) selected attitudinal questions on why people move, why they have more births than they say they want, why they choose to use traditional doctors rather than government hospitals, etc.; (ii) questions on access to, perceptions of and responses to various government policies, services and facilities; and (iii) questions on time allocation of family members, the decision-making process within the household, the status and roles of women and the influence of extended family and other kinship relations. Since it is households that ultimately make demographic decisions and represent the locus of economic activities, a better understanding of the factors influencing their behaviour, including the factors that are potentially amenable to policy intervention by the government, would be extremely useful.

95. An ideal data set for yielding parameters useful in integrated planning should combine a household survey with community survey or areal data. For examples of such community questionnaires and their use, see Freedman 1974; Anker 1980; Bilsborrow and others 1984; Casterline 1985; Lim, Ogawa and Kasai (forthcoming). By collecting household and community level information, policy makers and planners would be in a much better position to verify the interrelationships postulated in figure II. Collection of household or individual and community or aggregate level data is necessary for multi-level analysis, which has been increasingly advocated for integrated approaches [Hermalin and Mason 1980; Casterline 1985; Smith 1986].

96. Multi-level analysis normally takes the form:

$$Y_{ik} = f(H_{ik}, C_k)$$

where Y refers to the household dependent variable (such as fertility), H to the household level explanatory variables, C to the community- or areal-level explanatory variables, and i and k are the household and areal subscripts. The use of household or micro level data has the advantage that the dependent variable refers directly to the decision-making unit. But it is crucial to consider the C variables to make the analysis more relevant to planners since they include the direct policy variables. In diagramatic form, these ideas have been illustrated in figure II.

97. To supplement such multi-level analysis, population impact analysis is an important area of research. The purpose of population impact analysis is to assess the effects of socio-economic development projects, such as rural electrification, integrated agricultural development projects, school construction, on fertility, mortality or migration [see examples in Barlow 1982; Bilsborrow

and DeLargy 1984; Harbison and Robinson 1985; Herrin 1986]. While the methodological issues for such impact analysis are admittedly complex, they are not unsolvable and promise to provide invaluable insights for integrated planning. The impact studies should, as far as possible, be of a quantitative nature if they are to be useful as a basis for resource allocation decisions. Quantitative assessments of demographic impacts of development programmes would provide a better basis for judging the relative merits of a programme competing with other programmes for scarce resources.

98. Population impact analysis should be given priority as a form of policy-relevant research. UNFPA [1985:16] stressed the importance of country studies measuring the demographic impact of various mixes of public investment. It noted that existing academic studies rarely yield findings in a form relevant to policy-making because the impact of development programmes on population is hardly ever anticipated in a concrete manner. To be relevant for policy, such research findings should also attempt to indicate what government can do to effect change and also to estimate the length of time required before a particular development intervention has the desired demographic impact.

99. Other than studies that deal with the determinants of demographic trends, it is very important for developing countries to conduct consequences studies. Whereas research on determinants may indicate to planners how best to modify population variables, studies are also needed on the developmental impacts of demographic change. Although the commonly-held view is that rapid population growth is inimical to socio-economic development, planners generally have no quantitative documentation of the magnitude of the impact of population on development. To demonstrate a need to alter demographic trends as being "too rapid" or as being "too slow" and to take demographic factors into account in planning, convincing analyses of the impact of population trends on such planning variables as food, health, education and employment requirements have to be conducted. UNFPA [1985:16] has emphasized that in so far as there is often still no concensus on the consequences of population growth, with opinions ranging from "we need more people" to "rapid growth is impeding development", it is imperative for countries to give priority to research on the implications of population dynamics for development.

100. It is impossible to set research priorities that would apply to all countries. Much will depend on the conditions and concerns prevailing in these countries. Indication of priorities may come from planners as they are faced with making a choice among policy options, with the resultant agenda of research giving emphasis to those areas that have pragmatic significance for planning. In such cases, research questions bearing on resource allocation in the public sector would be especially important.

101. UNFPA [1985:18] suggested that in establishing national priorities for research efforts in support of integrating population into development planning, attention be given to the following: (a) national objectives in population and development; (b) the availability of data; (c) the availability of suitable

conceptual frameworks and research methodologies; (d) the prospects for using the research findings; and (e) the availability of technical expertise. Furthermore, priorities could be set in terms of relevant time-frames for the research; those which are immediate or short-run could be undertaken first before turning to the longer-term studies.

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ANALYTICAL PERSPECTIVES FOR POPULATION AND DEVELOPMENT RESEARCH AND PLANNING

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I. Introduction

While calls for the integration of population and development planning have been made at various international and regional forums during the past decade, it is only recently that attempts have been made in some countries to operationalize such integration. The lag between rhetoric and action may be due to several factors, among them being (a) lack of a common understanding of what "integration" really means and what is to be gained from such integration; (b) lack of a common set of analytical frameworks and operational guidelines as to how to proceed with such integration; and (c) lack of country-specific information on key population-development interrelationships. Recent work, however, has done much to reduce some of these constraints. The concept of integration and the potential gains from such efforts have been clarified and various analytical frameworks have been suggested. What is still lacking is information regarding population-development interrelationships at the country level to provide the analytical basis for integration.

The purpose of this paper is to suggest an approach that will help planners obtain such needed information. Specifically, the paper describes analytical perspectives that will help guide research into population-development interrelationships.

II. Analytical perspectives for integrating population and development planning

The integration of population and development planning simply means the explicit consideration of socio-economic and demographic interrelationships in the formulation of development policies and programmes aimed at achieving the country's development objectives. The need for integration is based on the recognition that demographic variables influence development variables and are also influenced by them, and that demographic policies are integral parts of social and economic development policies aimed to improve levels of living and raise the quality of life.

A general framework

There are three elements in the concept of integration that apply to each of the planning perspectives we shall describe below. These are the development

objectives, the behavioural model that allow us to conceptualize how various social, economic and demographic outcomes are determined, and the development policies and programmes.

A need for planning arises when the outcomes of socio-economic and demographic processes without public intervention diverge from society's desired outcomes. In such a case, economic and demographic policies are formulated and implemented to modify the operation of the socio-economic-demographic system towards the achievement of the desired outcomes. A critical element of the planning process is the behavioural model which provides the framework for viewing how the socio-economic-demographic system operates. Below we briefly describe behavioural models that apply to specific planning perspectives, i.e. macro, sectoral and programme/project perspectives.

Macro planning perspective

Figure I shows the simplest way in which basic socio-economic and demographic interrelationships can be conceptualized at the macro level. We start by considering the demographic processes of fertility, mortality and migration. These processes determine the demographic outcomes, namely, the size, age-sex structure, and spatial distribution of the population. The resulting demographic outcomes in turn affect various socio-economic processes. These include saving and investment, land, labour and capital utilization, consumption of goods and services, public expenditures, and external trade. Many of these processes operate within specific markets, i.e. resource (land, labour and capital), product, money, and external markets, where demand and supply factors determine the various socio-economic outcomes. The socio-economic outcomes of interest include income, employment, health/nutrition, education/training, housing/sanitation, and environmental quality. These outcomes in turn influence the demographic processes we started out with.

The highly simplified framework in figure I can be expanded to identify in more detail several key socio-economic and demographic processes involved in the determination of development outcomes. Figure II presents such an expanded framework. The key interactions, with special emphasis on the role of population factors, can be briefly described as follows:

1. Fertility, mortality and migration determine the size, age-sex structure and spatial distribution (e.g. rural versus urban) of the population.

2. Consider first a closed economy and an economy without the participation of the public sector. The size, age-sex structure and spatial distribution of the population, together with income and its distribution, and the structure of prices determine the level and structure of household demand for goods and services.

Given the level and distribution of income and the structure of prices, household demand for goods and services is determined first by the size of the

Figure I. Simple framework for viewing the integration of population and development planning at the macro level

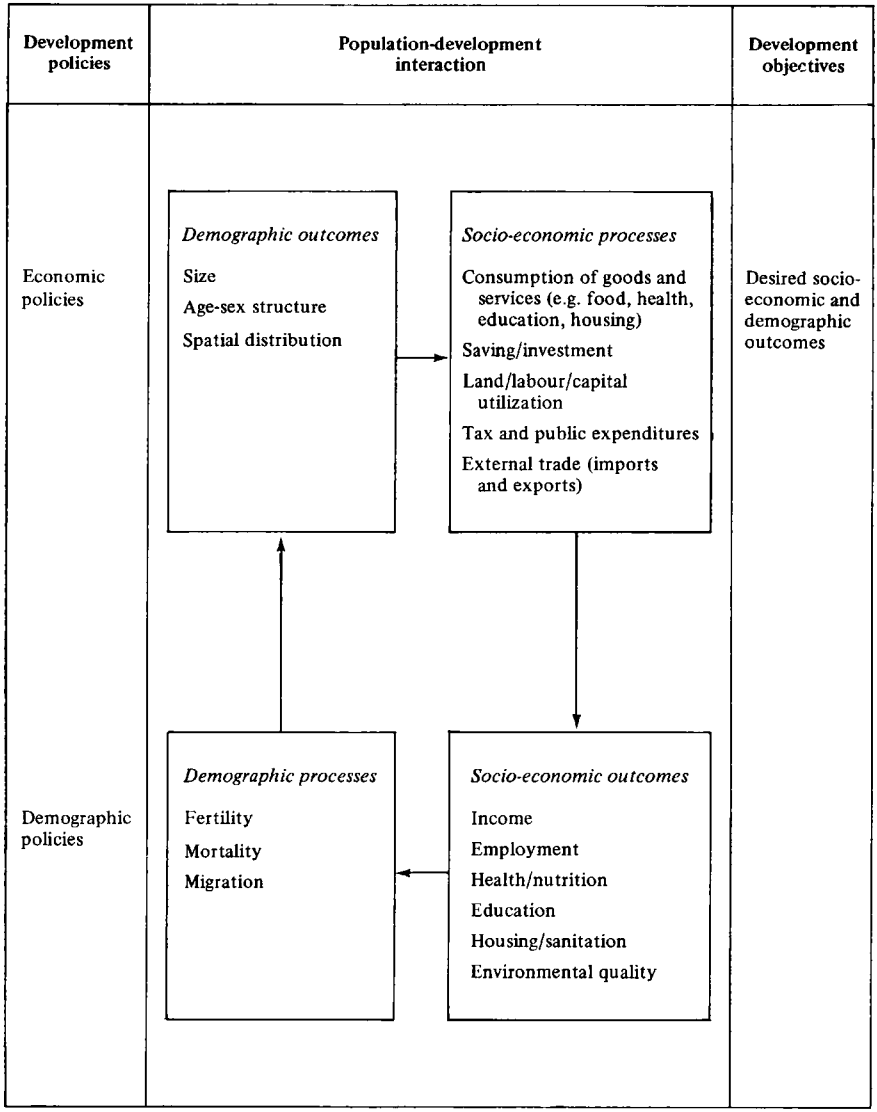
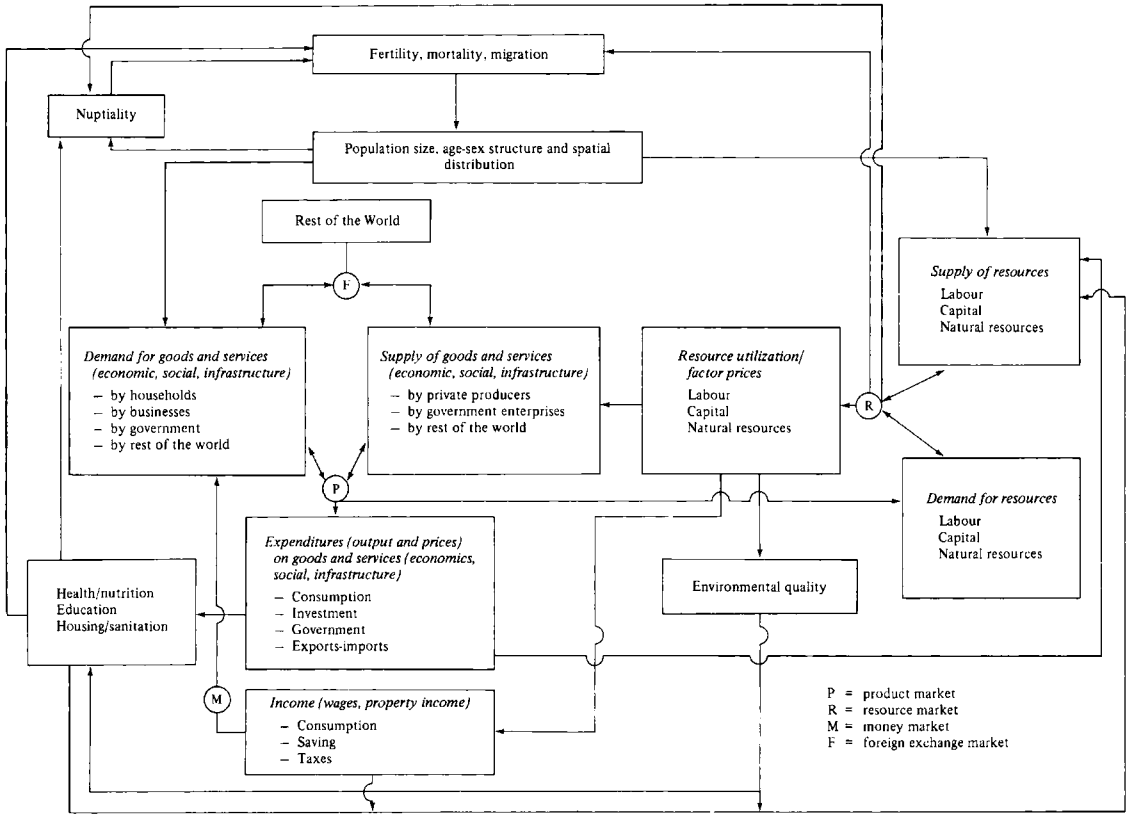


Figure II. Framework for analysing population-development interactions



population, i.e. an increase in population size increases aggregate demand. The structure of demand is also affected by the age-sex structure of the population. A young age structure implies a greater demand for goods and services normally consumed by children and young adults. For example, demand for educational services and certain types of health services would relatively be higher in a younger population than in an older population. Finally, rural-urban distribution of the population can also affect the structure of demand. A more urban population implies a greater demand for specific types of goods and services associated with urban life-styles.

3. To supply the goods and services demanded by households, private producers demand factor inputs (land, labour, and capital). Together with the supply of factor inputs, this demand determines the level and structure of employment and the capital and natural resources used in the production of goods and services, and their corresponding prices (i.e. wage, interest and rent).

4. The amount of resources used and their corresponding prices as determined by supply and demand in the resource markets determine the level of income. Its distribution is determined by the distribution of ownership of resources used in the production of goods and services.

5. The demand for, and supply of, goods and services in the product markets determine the equilibrium level of output and prices, and the equilibrium level of household expenditures and household savings. Consumption expenditures of specific goods and services affect levels of health/nutrition, education/training, and housing/sanitation. These in turn affect fertility and mortality. These also affect labour productivity, and hence, the returns to labour.

6. In supplying the goods and services demanded by households, producers may need to invest in new physical capital, e.g. machinery, equipment, etc. to add to the current stock of capital. The decision to invest in new physical capital depends on whether the expected rate of profit on the new investment is greater or less than the interest rate that must be paid on the funds that need to be borrowed to acquire these assets. The expected rate of profit in turn depends on the prices of goods and services and on the prices of factor inputs. Producers will invest up to the point where the expected rate of profit, given the price of capital, is equal to the interest rate. The interest rate, in turn, is determined by the supply of, and demand for, money in the money market.

The decision by producers to invest in new capital adds to the aggregate demand for goods and services, which leads to additional demand for factor inputs, which given their supply, to additional factor incomes. The demand for, and supply of, investment goods determine the equilibrium level of investment expenditures which add to the stock of existing capital.

7. There are certain goods and services that could not be efficiently provided by private producers because of such factors as economies of scale and externalities, or because, given low incomes, the total output supplied by private

producers falls short of some desired levels, e.g. health and educational services. In this case, the public sector might supplement the supply of goods and services available to households through purchases of productive goods and services and resources needed to provide such goods and services. Such planned purchases increase aggregate demand, which in turn increases the demand for resources (directly, by government demand for inputs, e.g. labour, and indirectly, by private producers demand for inputs to supply the additional government demand for goods and services).

The level and pattern of public demand for goods and services are influenced by the size, age-sex structure and spatial distribution of the population. The increase in population size implies increased requirements for goods and services not adequately provided by the private sector. An increase in population size and density, however, may lead initially to significant economies of scale of certain planned public projects, making them economically viable. Changes in the age structure also affect patterns of requirements for public goods. For example, a young age structure implies greater requirements for educational services. Finally, the spatial distribution of the population (e.g. rural versus urban) also affects the spatial pattern of public expenditure requirements. In turn, the spatial pattern of public expenditures influences migration and settlement patterns by influencing the effective cost of goods and services facing households.

The level and pattern of public expenditures also provide external economies to business, thus reducing the cost of supplying goods and services and increasing expected profitability. This leads to another round of business demand for investment goods. Thus, the activities of the public sector directly and indirectly affect both the level of resource use and income, and the level of output and expenditures.

Government purchases can be financed from taxes (both direct and indirect) as well as from borrowings (both domestic and foreign). As with private investment, the decision to supplement privately-produced goods and services depends upon the expected rate of return of public expenditures *vis a vis* the rate of interest.

8. The rest of the world plays an important role in the development of the national economy. Levels of income in the rest of the world and the relative prices of goods and services between the country and the rest of the world affect the demand for local goods and services, e.g. tourist services. All things remaining the same, an increase in the rest of the world's demand leads to increased local production activities, in turn affecting the level and pattern of resource utilization and incomes in the country.

The level of national income as well as the relative prices of goods and services between the rest of the world and the country affect the country's demand for goods and services produced in the rest of the world. Expenditure on such goods, i.e. imports, represents a leakage in the national income flows, generating incomes and employment elsewhere.

9. The supply of labour is determined by the size, age-sex composition, and spatial distribution of the working age population, and by the age-sex specific labour force participation rates. The latter in turn is determined by health and education levels of the population, property incomes, and the wage rate. Since males normally exhibit uniformly high rates of labour force participation over a broad age range, a dynamic element in labour supply is the participation of females. All things being equal, labour supply can expand rapidly if more women decide to participate in the labour force. Declining fertility, which may moderate the size of the working age population after some time lag, may not proportionately reduce labour supply if declining fertility also leads to higher labour force participation of women.

The demand for labour is a derived demand, i.e. derived from the demand for goods and services. Hence, the demand for labour will depend partly on the prices of goods and services that labour will help produce. In addition, the demand for labour is determined by the productivity of labour, which in turn depends upon the level of technology, the amount of capital and natural resources used in the production process, and the human capital embodied in man.

The demand for, and the supply of labour determine the level of employment and wage rates. Note that if the supply of labour increases faster than the demand, there will be a tendency for employment to be less than full at the same wage rate, or for the wage rate to fall to accommodate the growing supply of labour.

At the subnational level, changes in the supply and demand for labour would tend to affect wage-rate differentials between areas. This would affect the volume and direction of migration.

10. Given the supply of natural resources, an increase in the demand for such inputs due to an increase in aggregate demand (which in turn is partly due to population change) tends to increase the level of resource use. For non-renewable resources, this could lead to a gradual depletion. For renewable resources, the increased use could lead to resource degradation (e.g. erosion and loss of soil fertility, deforestation). This in turn could lead to a decline in environmental quality (e.g. flooding in river basins, changes in micro-climate). Renewable resources, however, can be upgraded and their environmental impact arrested and improved by the application of appropriate technologies often embodied in capital.

11. In addition to growing population and rising local subsistence demands, commercial demand for natural resource-based products could rise dramatically as a result of a large demand from the rest of the world. In this case, the exploitation of resources could become more rapid, and the consequent resource degradation and environmental deterioration more serious. Deterioration in environmental quality could affect mortality directly, and indirectly through its effect on health.

Moreover, the availability of land and natural resources in one area *vis a vis* the rest of the country affects the prices of such resources. This affects the migration of producers that rely heavily on such resources for production, i.e. subsistence farmers.

Sectoral planning perspective

The simple framework shown in figure II can be used to extract population-development interactions at the sectoral level, i.e. economic, social services and infrastructure sectors, by simply highlighting aspects directly related to the sector. The same macro framework is used so that population-development interactions can conveniently be analysed both within the sector and between sectors in the broader context of the macro economy.

Economic sector. The economic sector in current development plans is often subdivided into agricultural and industry/trade sectors. The major concerns include increasing levels of output, income and employment, and arresting and later reversing environmental deterioration and natural resource degradation. Let us first examine population-development interactions within the economic sector. Later we examine the interactions between the economic sector and the rest of the sectors.

(1) Fertility, mortality and migration determine the size, age-sex structure and spatial distribution of the population.

(2) Consider first an economy without the participation of the public sector. The size, age-sex structure and spatial distribution of the population, together with the prevailing levels and distribution of income and the structure of prices, determine the level and pattern of demand for goods and services in the economic sector. A large population with relatively low incomes would generate a structure of demand that is highly biased in favour of food and basic subsistence goods, and away from highly priced industrial goods.

(3) To produce goods and services needed to satisfy such demand, private producers demand factor inputs, namely, labour, capital and natural resources. Together with available supply, this demand determines the level of resource utilization and market prices of each input. The level of resources used determines the supply of agricultural and non-agricultural goods produced, while factor prices and levels of inputs determine factor incomes.

Unless productivity in agriculture increases so that income increases, the continued growth of population will make it difficult to shift the structure of production from basic subsistence agriculture to modern industrial production.

(4) Given low levels of income, inequitable distribution, imperfect markets, and such factors as the presence of externalities and economies of scale, the demand for and supply of goods may lead to a level of consumption and invest-

ment expenditures that fall short of some socially desired levels. In this case, the public sector might supplement the supply of goods and services of the economic sector through investments in productive activities (i.e. investments in agricultural technology, tourist facilities, etc.). These activities tend to generate greater demand for resource inputs, and therefore incomes, which will increase the effective demand of households for goods and services in the sector, or will tend to reduce prices of goods and services, so that, given levels of incomes, there will be a greater level of consumption of goods and services. The activities of the public sector, therefore, affect both the level of resource use and income, and the level of output and expenditures.

(5) Rising income levels in the agricultural sector could lead to greater demand for non-agricultural commodities, and hence to a faster structural transformation of the economy.

(6) The opening of the economy to the rest of the world could have significant impact on the structure of demand and on the pattern of resource use. For example, large demand for natural resource-based products increases the demand for natural resources and, given supply, increases natural resource utilization as well as complementary inputs. A potential adverse impact, however, could be the faster rate of natural resource depletion and environmental degration in some areas of the country. Increased demand for complementary inputs, i.e. labour, to produce export goods could raise wage rates in these areas relative to the rest of the country, and could induce in-migration of labour in these areas.

Interrelationships between sectors can also be identified.

(1) The pattern of resource utilization that contributes to natural resource depletion and environmental degration could affect the outcomes of the social service sector, i.e. health/nutrition.

(2) Investments in the infrastructure sector could reduce the cost of production or increase productivity of resources, leading to higher profits or lower cost of goods and services in the economic sector. This in turn leads to a greater level of expenditure given incomes, or increased incomes from owners of factors of production in the economic sector.

(3) Labour productivity in the economic sector is affected by the outcome of the social service sectors, i.e. health/nutrition, education/training and housing/sanitation.

Social services sector. The social services sector in current development plans is often subdivided into health/nutrition, education/training, housing/sanitation, and other welfare services subsectors. The major concerns are the improvement in levels of health/nutrition, education/training, housing/sanitation, and welfare of disadvantaged population subgroups. Let us first consider the major direct and indirect effects within the sector.

(1) Fertility, mortality and migration determine the size, age-sex structure, and spatial distribution of the population.

(2) Consider first an economy without the participation of the public sector. The size, age-sex structure and spatial distribution of the population, together with the prevailing levels and distribution of income, and the structure of prices of social goods and services, determine the household demand for social goods and services.

(3) To meet such demand, private producers require factor inputs mainly labour and capital. Together with the available supply of such inputs, such demand determines the level and prices of resource inputs used in the production of social services and therefore the available supply of such goods and services.

(4) The demand for, and supply of, social goods and services in the product markets determine the level of consumption and investment expenditures on such goods and services. Consumption of specific social goods and services directly affects levels of health/nutrition, education/training, and housing/sanitation. These in turn affect fertility and mortality. They also affect labour productivity, and hence the returns to labour.

(5) Given low levels of income, inequitable distribution, imperfect markets, (e.g. housing market), and such factors as the presence of externalities and economies of scale, the demand and supply of social goods and services may lead to a level of consumption and investment that fall short of some desired minimum levels. In this case, the public sector might supplement the supply of social goods and services available to households through purchases of productive goods and services and resources needed to produce such goods and services. The increased supply, given the original demand, will tend to reduce prices and expand household expenditures on social goods and services. The activities of the public sector, therefore, affect both the level of resource use and income, and the level of output expenditures.

The above major interrelationships highlighted the direct and indirect effects within the social services sector. The direct and indirect interrelationships between the social services sector and the rest of the sectors, i.e. intersectoral relationships, can be described as follows:

(1) The level of income that partially determines demand is determined not only from the payments to resources used in the social services sector but in the other sectors as well. Problems of low productivity and incomes in the other sectors affect the level of effective demand in the social service sector.

(2) Resource conservation and environmental quality that affect health arise not only from resource use in response to local subsistence demand for goods and services but sometimes, more importantly, in response to large commercial demand for natural resource-based products from the rest of the world, e.g. mineral and forest products or agricultural export products.

(3) The outcomes of the social services sector, i.e. health/nutrition, education/training, and housing/sanitation affect productivity of labour not only of labour within the sector, but labour used in all the other sectors.

Infrastructure sector. The infrastructure sector in current development plans is often subdivided into the following subsectors: transportation, communication, water resources, and energy. The major concerns include the adequate provision of necessary support activities to the operation of the economic and social services sector.

Since production activities in this sector are often characterized by substantial economies of scale and externalities, the private sector is not likely to provide these goods. Hence, outputs of this sector will be provided by the public sector. The following interrelationships within the sector and between sectors may be considered.:

(1) Public investment in infrastructure generates demand for resource inputs, which given the supply, adds to utilization of labour, capital and natural resources. This directly adds income to factor owners.

(2) Infrastructure support affects both the production and consumption activities. Infrastructures lower cost of production, which could lead to lower prices if passed on the consumers, or greater profits and factor incomes, if passed on to resource owners. The first effect directly affects level of expenditures given demand, with important impacts on such key outcomes as health, education, etc. The second effect indirectly affects expenditures through an increase in effective demand arising from increased incomes.

(3) Increased production activities in specific areas of the country arising from the impact of differential areal investments in infrastructures could affect the relative wage rates and prices of goods in these areas, which in turn could affect migration patterns.

(4) The development of infrastructure, however, can have a substantial impact on natural resource conservation and environmental quality, depending upon the manner of infrastructure construction. For example, the development of energy sources, e.g. construction of dams, irrigation and dendro-thermal and geothermal facilities, could affect the local resource base and environment, as well as increase specific health hazards, e.g. schistosomiasis. It could also lead to dislocation of people living in such local areas, which if proper measures are not instituted, could lead to loss of livelihood to a large group of people in the communities affected.

(5) The development of infrastructures affects settlement patterns within a given area, as people settle in areas near such infrastructures, e.g. road network, which in turn could lead to further economies of scale in the provision of subsequent infrastructures.

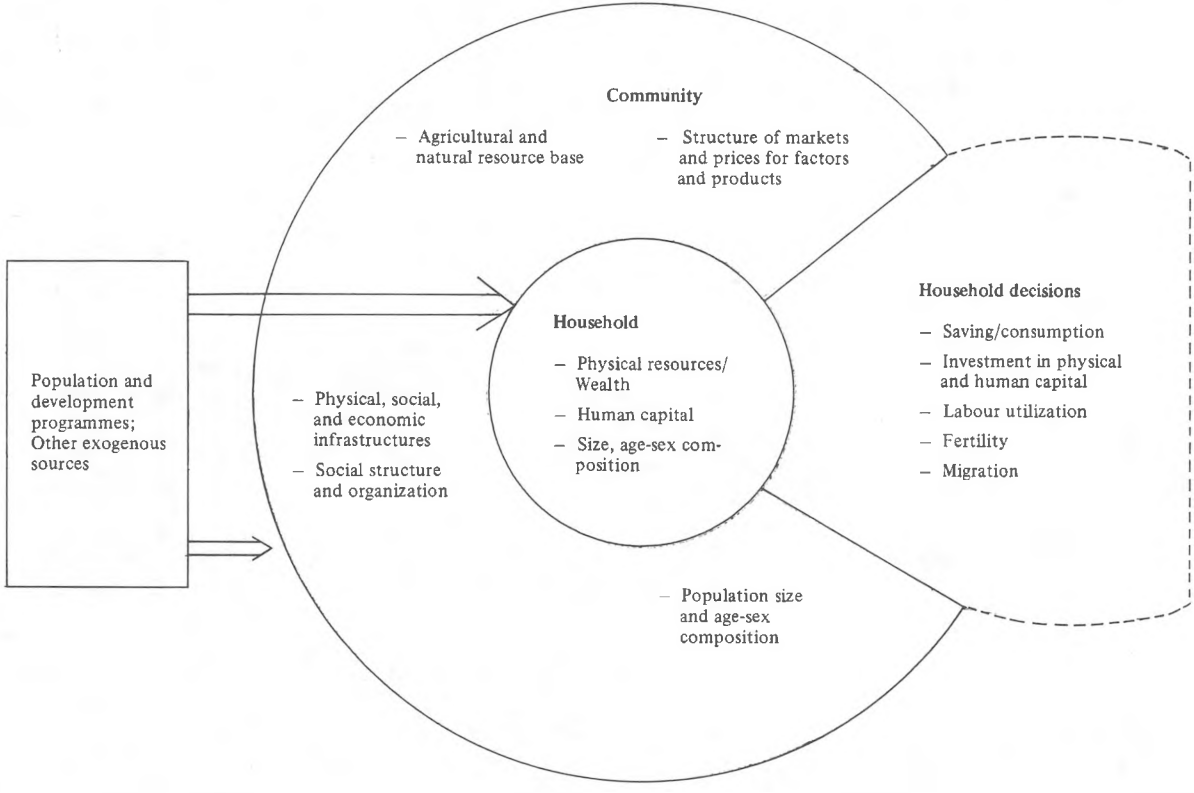
Programme/project planning perspective

As in the macro and sectoral levels, the integration of population and development planning at the programmes and project level requires consideration of the same three basic elements: the development objectives, the population-development interactions, and the socio-economic and demographic programmes designed to achieve these objectives. The objectives of any programme/project is a subset of the overall development objectives, and these are specified to address a particular subgroup of the population on which the programmes project is expected to have an impact. In designing programmes to achieve certain objectives, we make certain assumptions as to the behaviour of the target population, mainly households or individuals. This framework allows us to analyse the impact of our programmes on the target population. Integration then implies that we take into account economic and demographic interrelationships at the household or individual level in the formulation and design of programmes to achieve desired behavioural outcomes.

A simple framework for viewing socio-economic and demographic interactions at the household or individual level is depicted in figure III. This framework can be described in terms of four basic components: (a) a model of household or individual decision-making; (b) the physical, social and economic environment of the community; (c) autonomous changes in this environment; and (d) changes in the environments arising from population and development activities.

In this framework, the household or other micro unit, in an attempt to improve its welfare, is assumed to make various types of decisions based on a set of opportunities and constraints defined by its household resources (physical and human capital as well as by the size and age-sex composition of its members) and by the community environment. This environment includes the community's natural resource endowments, the prevailing structure of markets and prices for both factors of production and products; and the prevailing social structure and social organization which defines, for example, land tenure, non-family labour utilization, and social, economic and political alliances which influence co-operative behaviour and community participation. Autonomous changes in the community environment include changes in international prices for agricultural export crops, national trends in prices of inputs and outputs, technology changes, and so on. The final source of change in the environment is the set of population and development programmes. These include: (a) provision of physical infrastructures such as roads, irrigation, flood control, electrification, and so on.; (b) the provision of social infrastructures and services in the field of education, health, nutrition, environmental sanitation, family planning, and so on; (c) agricultural programmes, such as land reform, development of co-operatives, provision of extension services and rural credit, and of various input subsidies and price supports; and (d) industrial development programmes involving the provision of credit and various subsidies to small and large-scale enterprises.

Figure III. Simplified framework for analysing the impact of population and development activities on household behaviour



In this framework, demographic and socio-economic development programmes are expected to affect the structure of opportunities and constraints facing the households either directly by increasing household resources and access to basic economic and social services, or indirectly through the community, by increasing community resources available to the households. The households are then expected to respond to these changes in a manner they perceive will improve their present economic and social welfare. Depending upon the nature of the emerging structure of opportunities and constraints, we may expect a "multiphasic response" from these households in terms of decisions regarding savings/consumption, investment in physical and human capital, labour participation of its members, fertility, and migration.

An important feature of this simple framework is the recognition that individual or household decisions on any particular aspect of welfare are not independent of other decisions in the sense that these decisions are all jointly determined by individual, household and community-level factors that can be influenced by various types of development activities. The implication of this feature for programme planning is that programmes formulated to achieve a small subset of development objectives may not achieve such objectives if formulated in isolation. For example, programmes to increase agricultural production through the provision of irrigation facilities may not lead to significant increases in household net incomes if prices of complementary agricultural inputs are kept high and prices of outputs are kept low directly or indirectly as a result of policies and programmes to support modern industry (i.e., policies to keep urban prices of foodstuffs low to support a low wage policy in industry, or import controls and tariffs to protect local manufacturing industries producing agricultural inputs). Furthermore, infrastructure programmes in education, health and electrification may fail to achieve their immediate objectives if account is not taken of low household incomes that tend to limit effective access to these programmes. Finally, family planning programmes may not achieve more than moderate success in situations where the economic value of children is high as a result of limited opportunities for current income generation and old age support. This does not imply that any particular development programme must be designed to be all-encompassing of the various factors we have identified. This surely would not be feasible and it is not necessary for achieving integration. Rather, what the framework implies is that, given the interrelationships between various household and community determinants of behaviour, the planner can design various programmes with the view that their combined and complementary impacts all lead to the desired behavioural outcomes.

III. Illustrative researches to support the integration of population and development planning

In many countries in the ESCAP region, the availability and quality of demographic data have significantly improved in the recent past. Studies on the determinants and consequences of demographic trends have likewise accumulated during the past two decades. The results of these studies are found in various

technical journals, monographs and unpublished reports which are often not readily useful to policy makers and planners in their current form. First, the highly technical style of most research reports may render them unreadable to the average policy maker or planner. Secondly, researches on a particular topic vary in quality and hence in levels of confidence too much to be attached to the findings. Policy makers and planners may not always be in a position to judge the quality of the research based on scientific standards. Thirdly, research results come in discrete units, sometimes contradicting previous results. Policy makers and planners may not always be in a position to assess conflicting results unless these are placed in the context of the larger pool of knowledge on the subject. Some "processing" of information is, therefore, needed to make the results of research readily useful for decision-making. The analytical framework derived from such "processing" will be of great use not only to planners and policy makers but also to concerned researchers in this area.

If the decisions to be made involve only fine-timing of specific policies and programmes, the usual research dissemination schemes, e.g. research abstracts, memoranda, and seminar/workshops, might be adequate to bring the relevant research to bear on the problem. However, when the policy decisions to be made are broader in scope, as in the case involving long-term perspective planning, there is a need to process information on a correspondingly broader scale to serve policy makers and planners. More concretely, there is a need for up-to-date critical analysis and synthesis of available information at the country level on significant population and development trends and their interrelationships, and an assessment of their implications for formulation and improvement of public policy and programmes. As a by-product, such country-specific studies might be expected to result in the discovery of unsuspected implications of existing population and development trends. For example, the interactions between fertility, nutrition and school performance could have serious implications for the quality of the labour force, income distribution and the relative balance of power between social groups in the future. Moreover, such studies can help identify critical gaps in knowledge and help establish research priorities on the one hand, and contribute to the development of improved analytical tools for investigation of population-development interrelationships in the future, on the other.

Below we briefly describe illustrative studies that might be pursued based on existing information.

Economic and demographic transitions: the role of public policies

One possible area for research is the examination of how various types of macro-economic and sector-specific policies and programmes have influenced the progress towards poverty reduction and structural change, on the one hand, and demographic trends on the other. The object of such study is to demonstrate to policy makers and planners that public policies designed to achieve specific objectives are most likely to have multiple unintended impacts, and many of

such impacts could adversely affect other development objectives. The result of such a study should provide some basis for decisions regarding whether there is a need to modify certain features of an existing policy or to modify the composition of the entire set of policies to ensure that the different and often conflicting objectives of development efforts can be more fully achieved.

To obtain a better insight into what the above type of study involves, it might be instructive to consider briefly a partial study recently conducted for the Philippines.

Recent data point to several disturbing economic and demographic trends. The poverty rate, which was high in 1971, remained high in 1983. Structural change, measured in terms of the industrial distribution of output and employment, has been very slow. The share of employment in industry, for example, remained stagnant at 15 per cent from 1971 to 1984. The rate of fertility decline and life expectancy improvements observed in the first half of the 1970s could not be sustained in the second half of the decade, and progress in both has probably slowed down further in the 1980s as a result of the economic crisis in 1983. Migration patterns in the 1970s have become predominantly metropolitanward and increasingly involved the migration of young, unskilled and single women to the cities. Analysis of the impact of past public policies on economic progress indicates a strong bias against agriculture in favour of modern industry. Moreover, government priorities, as reflected in the pattern of government expenditures, have tended to favour large-scale economic projects of limited direct impact on welfare at the expense of basic social services. Are these economic and demographic trends and the nature of public policies and priorities merely coincidental, or are they intrinsically related?

Preliminary analysis based on existing information revealed the following. The net effect of various policies to achieve faster growth and development with emphasis on rapid industrialization has been to systematically bias the agricultural sector in favour of modern industry. This bias in agriculture has tended to reduce the growth of productivity in this sector where the bulk of the population is found. This partly explains the continued high rates of poverty of the rural farm population.

The retionale for the rapid industrialization strategy was to raise overall productivity by absorbing the growing population from the relatively low productivity agricultural sector to the higher productivity industrial sector. But the type of modern industry that evolved has been predominantly the import-substituting, import-dependent and capital-intensive variety. The high capital intensity of industrial production which resulted from policy biases that distorted factor prices in favour of capital and at the expense of labour meant a low labour absorptive capacity of modern industry. This partly explains the almost constant share of employment in the industrial sector since the 1950s.

Associated with the limited labour-absorptive capacity of modern industry is the limited occupational mobility of the labour force, i.e. shifts from low

productivity agricultural occupations to higher productivity industrial occupations. Employment instead shifted from agricultural activities in the rural areas to equally low productivity occupations in the traditional services and informal sectors in both urban and rural areas. What this also implies is that much of the rural-urban migration has been, to a large extent, merely a transfer of the rural poor into the urban areas who then swell the size of the urban poor.

Modern industry could still have absorbed labour at a faster rate than it did in spite of its highly capital-intensive nature if its growth had been much faster. But its predominantly import-substituting character meant that it had to rely on increased domestic demand for it to grow. With low productivity and incomes in both the rural farm sector and the urban traditional services and informal sector, such rapid growth could not be achieved. Moreover, its highly import-dependent input structure meant that it was highly vulnerable to external shocks. While exports offered a way to expand the size of the market and to grow, many of the public policies favouring import-substitution continued to remain in place. The limited number of export-oriented industries, like their import-substituting counterparts, also became highly import-dependent and their growth was highly subject to external shocks, in addition to the effect of these shocks on the demand for their products (i.e. recessions in the developed countries following each oil shock in the 1970s which help trigger highly protectionist tendencies).

Public expenditure patterns which reflect public priorities have been increasingly biased in favour of expenditures with dubious economic value (i.e. support to failing public corporations and a large national defense budget) at the expense of social services that have a direct bearing on the public welfare, i.e. education, health, nutrition, social welfare services, etc. The increased budgetary constraints arising from the decline in economic performance in the 1980s meant further reduction in the provision of basic services to the poor in the rural agricultural areas. Thus public expenditure patterns have had limited direct impact on the welfare of the large majority of low-income households.

Moreover, the structure of industry that developed, mainly the import-substituting and import-dependent variety, resulted in the concentration of industry in metropolitan areas and in few urban centres. The social and economic infrastructures to facilitate the growth of industry meant that they too tended to concentrate in these few areas. As such, the public expenditure patterns for infrastructures also tended to acquire a spatial bias in fovour of few areas at the expense of the countryside. This partly influenced the direction of population movements and the concentration of the urban population in the metropolitan and few urban centres.

The combined effect of poor economic performance, slow structural transformation, declining capacity of the public sector to provide for basic services is to slow down the progress towards poverty alleviation, limited occupational mobility, and reduce options for geographic mobility. All these have demographic implications. Low levels of living in the face of declining

capacity of the public sector to provide for basic health services contributed to a slowing down of the progress towards mortality reduction and increasing life expectancies. The slow shift of the population away from the agricultural sector where the social and economic context place a high value on large family sizes favoured continued high fertility. Declining real incomes and the consequent economic stress, coupled with expectations of an unfavourable future economic situation, however, could change the fertility plans of poor households. But with limited independent access to family planning information and services, coupled with the declining capacity of the public sector to provide such services, these reduced fertility plans could not be effectively realized. The result is a declining rate of overall fertility decline. The slow occupational mobility with the associated slow change in incomes and opportunities for new patterns of consumption and investment do not favour rapid change in life-styles consistent with lower fertility. Limited occupational mobility also limits the choices for geographical mobility. The only viable option for a large number of the rural poor may be to move to few urban destinations where opportunities for livelihood in the traditional but low productivity service sectors are still available. But this type of mobility does not provide the accompanying changes in life-styles consistent with smaller families. The high economic value of children for both current production and future old age support remains in both settings.

Public policy and health outcomes: a sectoral analysis

A particular sector of the economy in which population-development interactions are salient is the health sector. It is particularly instructive for policy makers to see how various public policies and programmes as well as other exogenous factors have affected on the one hand the non-health care sectors, which in turn affect various socio-economic outcomes along the analysis suggested above, and how these in turn affected mortality and on the other hand, the operation of the health care sector in producing levels of health care utilization conducive to rapid mortality decline. Since the non-health care determinants of mortality would have been addressed in the previous macro-level analysis, the emphasis in this sectoral analysis might be on the role played by population increase and age-sex structure change on the pattern of health care service requirements and on the role of socio-economic factors and public policies in influencing the level of demand and supply for health care services.

Within the health sector, there is a need to examine closely how the various markets operate. These markets include the health care services market, which determines the quantity and prices of health care services, the health manpower market, which determines the employment and wage rates of health professionals, and the health professional market, which determines the number of graduates and the cost of educating various health professionals. The object of this sectoral analysis is to see how certain public policies and private practices affecting the demand and supply in each of these markets affect the overall efficiency of the health care sector in responding to the changing structure of health needs of the population. It will not be surprising to find that certain

policies and practices, i.e. restrictions on tasks performed by certain professionals, limitation on entry into specific health professions, subsidized professional education, and highly standardized methods of producing health professionals, lead to distortions in each of the health care sector markets leading to inefficiency in the allocation of health resources. In view of the close interactions between these markets, introducing a policy modification in one market, either the supply or the demand, without taking into account existing distortions in the other markets, is bound to produce less than optimal results. The case for integration of health care sector policies will be further strengthened by the demonstration of such interactions as can be provided by a synthesis of existing analysis or, later on, by further empirical studies on the subject.

Assessing the demographic impact of development projects: a project-level analysis

It is now well recognized that development projects traditionally pursued to achieve non-demographic objectives have important demographic consequences. Consideration of these demographic effects could provide additional criteria for the selection of alternative projects as well as provide additional guidelines for project design and implementation. While there might be few studies on this subject in a specific country, it would still be useful to synthesize the results of such studies for policy discussion even as additional studies are to be undertaken in the future.