

***Towards Operationalizing the Concept
of Integration of Population and
Developmental Planning:
The Philippine Experience***

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A B S T R A C T

Calls for the integration of population and development planning have been made at various forums during the past decade. A review of documents calling for such integration reveals that the term "integration" has been used in different contexts which often blur rather than clarify its meaning.

This paper suggests a working definition of the concept of integration of population and development planning and applies this concept to different planning and programming perspectives. This paper also discusses the potential gains that could be derived from integration and some concrete steps needed to achieve integration. A final section describes current Philippine efforts towards the integration of population and development planning.

This paper was presented at the Nihon University Population Research Institute Occasional Public Seminar, October 26, 1984. It was written while the author was a Visiting Research Fellow at the Institute from October to early November 1984. Many ideas contained in this paper have been presented in various training programs and workshops for planners and population program managers which the author either coordinated or participated in as a resource person during the past three years. The author has profitted from the insights provided by participants and colleagues. Errors of interpretation are solely the responsibility of the author.

I. Introduction

Calls for the integration of population and development planning have been made at various forums during the last decade. At the international level, this call was made in the World Population Plan of Action (1974) which states: "Population measures and programmes should be integrated into comprehensive social and economic plans and programmes . . ." This call essentially remained in force in the Mexico City Declaration on Population and Development (1984). At the regional level, this call is contained in the Asia and the Pacific Call for Action on Population and Development (1982) which states: "An integrated approach should be evolved and followed in regard to population and related programmes of economic and social development." Underlying these calls is the recognition that population and development are interrelated; population variables influence development variables and are also influenced by them, and population goals and policies are integral parts of social, economic and cultural development aimed to improve levels of living and the quality of life of the people.

In the Philippines, the need for such integration has been clearly stated in the Report of the Special Committee to Review the Philippine Population Program (1978). Noting that while some efforts have been taken to link the Philippine Population Program with other economic and social dimensions of development, the Committee found that to a large extent, the program has remained essentially a family planning program. Moreover, the Committee observed that whenever population was considered in the formulation of development plans, it was often treated more as a demand variable than as a factor that can be influenced by economic and social development. Hence, the Committee recommended that "the Philippine Population Program should be designed on a broader scale and be fully integrated in the national development plans of the country. Economic, social and institutional policies and programs should be evolved with a conscious consideration of their impact on demographic behavior and objectives" (pp. 122).

Several interrelated questions arise from such repeated calls for integration. First, what does "integration of population and development planning" mean? The documents cited above do not readily provide a working definition of the term "integration". In fact, the term

"integration" has been used in different ways that blur rather than clarify its meaning. Secondly, why does the need for integration arise, and what can be gained from such integration? Thirdly, how does one go about "integrating"? The documents cited above suggest the need to create a high level population unit within the development planning agency to be responsible for integrating population policies and programs with related social and economic development policies and programs. But what does such a unit propose to do in operational terms to promote the desired integration?

The purpose of this paper is to attempt to provide preliminary answers to the above questions as bases for generating additional insight from all concerned--development planners, population program managers, and social scientists--on what integration should mean and how it can be effected. The paper is organized as follows: In Section II, we examine how the term "integration" has been used in the past. In Section III, we suggest a working definition of "integration" and apply this in the context of overall development planning and program design. We also provide a brief historical description of the evolution of thinking regarding population and development issues and suggest that the need for integration is a logical development of our changing perspectives about population and development issues. In Section IV, we discuss the potential gains that could be derived from integration while in Section V, we suggest steps that need to be taken to achieve integration. Finally, in Section VI we describe current Philippine efforts towards the integration of population and development planning.

II. Integration: How the Term Has Been Used in the Past

The term integration has meant several things depending upon the context in which it has been used. Within the macro development planning perspective, economic planners use the term to mean the 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. If this is all that integration really means then indeed, integration has been achieved and nothing more needs to be said, except perhaps that there is a need for obtaining accurate and timely

population data for planning purposes. Still within the same macro planning perspective, population program managers, on the other hand, use the term integration to mean formulating socioeconomic policies which, while contributing to economic growth and higher standards of living, have a decisive impact upon demographic trends, including fertility. In this concept of integration one might ask: If socioeconomic policies succeed in achieving economic growth and higher standards of living, why do we still have to worry about demographic trends?

At the program planning level, population program managers use the term integration in still many different contexts. First, integration is used to refer to the addition of family planning activities to on-going programs in health, nutrition, education and rural development, the purpose of which has not been made quite explicit. One might call this the "linking" concept of integration and it is reflected in such statements as: "There is a need to integrate family planning into the maternal and child health care program," or "Family planning programs should be linked with programs related to health and nutrition, education, rural development, women and youth." Second, the term integration has also been used to refer to the use of established development programs to carry out family planning activities. One might call this the "piggy-back" concept of integration and it is reflected in such statements as: "Population and family life education should be integrated with both formal and non-formal systems of education." This concept is also evident in earlier suggestions that family planning outreach strategy might involve using agricultural extension agents to deliver family planning messages to farm households in addition to their main task of disseminating modern agricultural practices and technology. Third, the term integration has been used to refer to a family planning strategy that uses a development project as an entry point for the dissemination of family planning information and for motivational campaigns to increase the use of family planning methods. For example, a pilot family planning project in the Philippines involves the setting up of a parasite control project in the target community as an initial activity for enhancing family planning acceptance. The idea is that when the target population sees good results from the parasite control project, they will become more receptive to the idea of family plan-

ning, a result which might not readily occur if only a pure family planning program is introduced. One might call this the "entry point" concept of integration. Finally, the term integration has been used to refer to the merger of a specialized agency performing solely family planning activities with a larger established agency which normally performs such activities as part of a broader range of activities, in order to avoid costly duplication of efforts. This "merger" concept of integration is evident in the issue regarding the relative efficiency of vertical versus integrated family planning programs which is centered on the question of whether family planning objectives can be more efficiently achieved if the program is handled by a separate special agency side by side with the health ministry, or whether the program should be implemented solely through the health ministry.

This problem of defining integration is confounded when we examine the very documents that have called for the need for integration. Not only is there no explicit definition of integration, but when the term "integration" does appear, it is often used in different contexts, and very vaguely at that. The following statements from the World Population Plan of Action, 1974 illustrate this point:

"25. It is recommended that health and nutrition programmes designed to reduce morbidity and mortality be integrated within a comprehensive development strategy and supplemented by a wide range of mutually supporting social policy measures . . . "

"30. Governments which have family planning programmes are invited to consider integrating and co-ordinating those services with health and other services designed to raise the quality of family life, including family allowances and maternity benefits, and to consider including family planning services in their official health and social insurance systems."

"45. Policies aimed at influencing population flows into urban areas should be co-ordinated with policies relating to the absorptive capacity of urban centres, as well as policies aimed at eliminating the undesirable consequences of excessive migration. In so far as possible, these policies should be integrated in plans and programmes dealing with over all social and economic development."

A different context for integration is implicit in the following recommendation:

"31. It is recommended that countries wishing to affect fertility give priority to implementing development programmes and educational and health strategies which, while contributing to economic growth and higher standards of living, have a decisive impact upon demographic trends, including fertility."

In the Asia and Pacific Call to Action on Population and Development, the term integration has likewise been used in different contexts as revealed by the following recommendations.

"13. . . . family planning programmes should be linked with programmes related to health and nutrition, education, rural development, women and youth."

"36. Population and family life education should be integrated with both formal and non-formal systems of education at all levels in order to help youth to become responsible parents and citizens for the future."

The many different concepts of integration used in the past have probably led to more confusion than clarification. In the light of repeated calls for integration during the past decade, it is not surprising that development planners and population program managers are at a loss as to how to proceed, especially if, in their own respective conceptualization, they feel that they have already achieved such integration. It is therefore necessary, at this point, to clarify the concept of integration as a basis for its effective implementation.

III. Integration: Clarifying its Meaning from Development Planning and Programming Perspectives

In development planning, we consider development goals and objectives and we formulate policies and programs designed to achieve those goals and objectives. In formulating policies and programs, we make certain assumptions about the behavior of the real world.^{1/} If we have narrowly specified objectives, then our model can be very simple. For example, if the objective of economic development is narrowly specified as simply the increase in the growth of GNP, then our assumptions about the behavior of the real world can be reflected in such simple growth models that relate economic growth with the rate of capital accumulation. Policies can then be formulated to speed up the rate of capital accumulation. Likewise, if the popula-

tion objective is merely to reduce population growth rates through fertility control, then we can have a model that simply relates fertility reduction with the use of modern contraception. Policies and programs can then be formulated to increase family planning use.

During the past three decades, however, our conceptualization of economic development and population problems has undergone significant changes, leading to a more comprehensive specification of development goals and objectives. As a result, the formulation of policies and programs must now necessarily be based on a more comprehensive conceptualization of the behavior of the real world, one that takes into account various socioeconomic and demographic interactions. It might be instructive at this point to briefly trace our changing perspectives with regards to population and development as a background for understanding the need for integrating population and development planning.

A. Population and Development Concerns: Historical Background

With the achievement of political independence during the post-war period, many Less Developed Countries (LDCs) began to go about the business of economic development. Resources were mobilized and institutions were developed according to the then prevailing conventional wisdom that economic development involves essentially economic growth or the rapid increase of GNP per capita. In the context of large manpower resources, the key to this economic growth was rapid capital accumulation. In many countries, including the Philippines, the strategy for achieving rapid and sustained growth was through industrialization, initially of the import substitution variety. Various fiscal, monetary and trade policies were formulated to support such a strategy. A basic assumption in this strategy was that the rapid growth of output would eventually benefit the population via the "trickle down" process. By the end of the 1960s, however, the realization came that in spite of creditable output growth performances, the problems of poverty and unemployment were nowhere near being solved. In the Philippines, as well as in some other countries, evidence pointed to the fact that income distribution had even become worse rather than better. With the increased concern with continued poverty and inequality in the face of rapid economic

growth, attention in the 1970s shifted to a development strategy that emphasized the necessity for the direct provision of basic needs. The view was that the trickle down process of development was too slow and too uncertain. If poverty was to be eliminated, policies and programs must be directly aimed at providing jobs, education and health services, etc. to the population groups most in need of these services. However, the various international crises in the 1970s led to another realization; resources, scarce as they are to start with in LDCs, had become even more scarce as resources from external donors had been reduced, and therefore, the existing national resources could not possibly be adequate to provide for all basic needs. As we entered the 1980s, the development strategy began to emphasize, more than ever before, the need for people's participation in the development process, mobilization of community resources, and self-reliance to provide for the basic needs at the community level.

In all these developments, we see an evolution of thinking from a preoccupation with macro economic growth to a fuller specification of economic development objectives in terms of the socioeconomic welfare of various population subgroups.

Paralleling this changing conceptualization of, and strategies for, economic development, was the realization in the 1960s that the rapid mortality declines in the early postwar period were being translated directly into rapid population growth. While demographers in the More Developed Countries (MDCs) had earlier issued warning calls to LDCs regarding the potential adverse consequences of rapid population growth on their socioeconomic development, the appreciation of these consequences did not begin to sink in until simulation studies in the late 1950s and 1960s demonstrated that rapid population growth in the LDCs (with already large populations relative to resources and which are relatively poor) could severely limit these countries' abilities to achieve sustained growth and to adequately provide for the basic needs of their populations.

By the turn of the 1970s, many LDC governments had responded to the challenge posed by rapid population growth by instituting policies to moderate population growth rates. The main program in support of these policies was the family planning program. But just as the family planning program was set up, a debate began regarding the wisdom of allocating scarce resources to family planning activities

instead of allocating these resources to more development efforts. Family planning programs were seen in some circles as either premature or ineffective. The assumption was that the fertility decline is largely a function of socioeconomic development, and unless significant prior development is achieved, family planning programs can not possibly have more than modest success. In fact, it has been said that the problems of LDCs are underdevelopment rather than rapid population growth per se.

Between these two polar points of the debate came a more balanced view that population and development are interrelated, and that while population trends have implications for socioeconomic development, development also plays a crucial role in affecting population trends. In addition to the relationships came an explicit broadening of population concerns from an earlier, almost total preoccupation with fertility reduction to concerns about morbidity and mortality, family formation and the status of women, population distribution and urbanization, internal and international migration, and population structure. In short, what we see is an evolution of thinking in the population field from its former preoccupation with fertility reduction to a fuller specification of demographic objectives in terms of the socioeconomic welfare of specific population subgroups.

Where does this parallel evolution of thinking about economic and demographic problems lead us? It is clear that both trains of thought converge ultimately in a common set of development concerns that takes account of both the socioeconomic and demographic dimensions of welfare and quality of life of the population. The implication of all this is that development objectives can now be more fully specified in terms of both socioeconomic and demographic outcomes, whether viewed from an economic planning perspective or from a population planning perspective. With commonly specified objectives, the formulation of policies and programs to achieve these objectives also have a common behavioral framework, one that takes into account the implications of demographic trends on socioeconomic outcomes, on the one hand, and the implications of socioeconomic development on demographic outcomes, on the other.

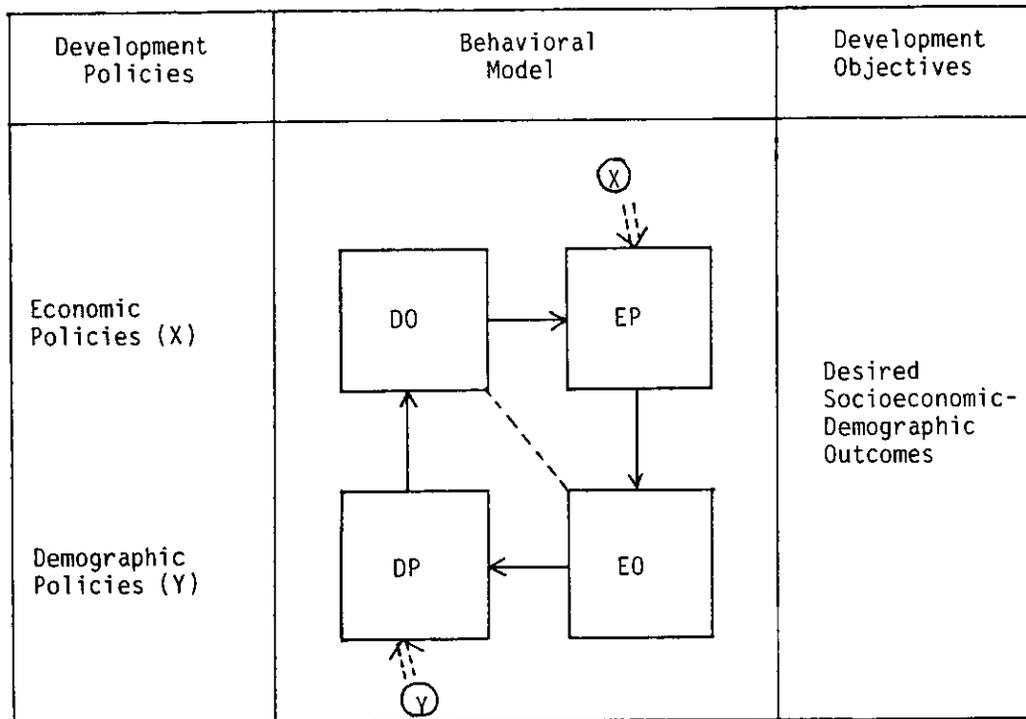
B. Integration: Its Meaning and Application to Various Planning Perspectives

On the basis of the foregoing, we are now in a better position to clarify the meaning of integration of population and development planning in operational terms. Integration simply refers to the explicit consideration of socioeconomic and demographic interrelationships in the formulation of development policies and programs to achieve the nation's development objectives. Let us now discuss the application of this concept to various planning perspectives and draw out its practical implications for planning.

C. Macro Planning Perspective

There are three elements in the concept of integration as shown in Figure 1. These are the development objectives, the behavioral model, and the development policies and programs. In the case of the Philippines, the goals as expressed in the development plan are (a) sustained economic growth; (b) total human development, which subsumes such concerns as employment, education, health, etc.; and (c) equitable distribution of the fruits of development, which includes equitable distribution at the spatial and population subgroups levels. While development goals can be stated in broad terms, development objectives must be specified in more concrete terms. With the integration concept described above, development objectives must be specified ultimately in terms of both socioeconomic and demographic outcomes. Thus one is interested, for example, in increasing employment not merely in terms of aggregate employment, but also, and more critically, of the employment of the subgroups of the population--age-sex composition, occupational distribution, sectoral distribution (agriculture, industry, and services), and spatial distribution (rural, urban, regional), etc.--which one wishes to influence. This suggests the need for more refined and disaggregated socioeconomic development indicators so that we can, in fact, judge the success of policies in achieving the newly specified development objectives. The question of equity is readily addressed by this integration concept because the specification of the development objectives is in the form of "who gets what". Thus the objective of equity, which has dominated

Figure 1. Framework for Viewing the Integration of Population and Development Planning at the Macro Level



DO = Demographic Outcomes

EP = Socioeconomic Processes

DP = Demographic Processes

EO = Socioeconomic Outcomes

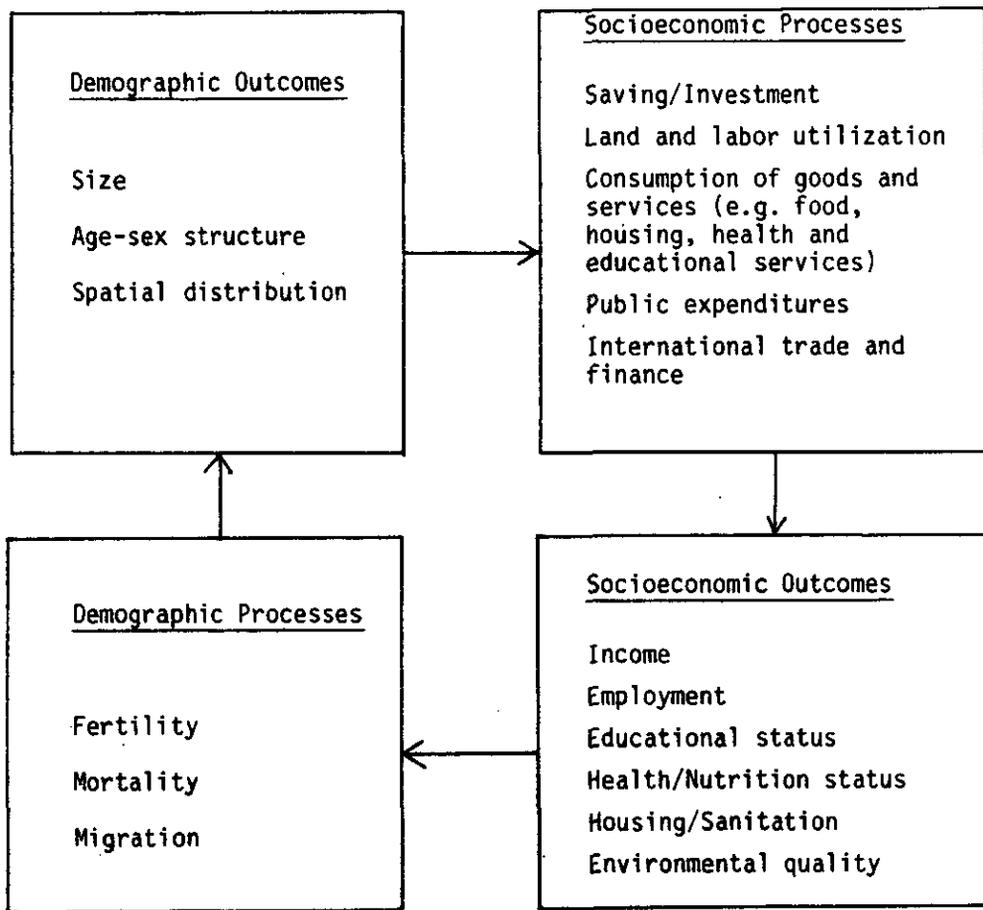
development thinking of the past decades, can now be properly pursued, not in isolation, but as an integral part of the entire development planning process.

The second element in the concept of integration is the behavioral model which serves as the framework for viewing socioeconomic and demographic interrelationships. At the macro level, this set of interrelationships may be described in a very general way with the aid of Figure 2. We could trace the interrelationships by starting with the demographic processes of fertility, mortality and migration determining the demographic outcomes in terms of size, age-sex structure and spatial distribution of the population. The resulting demographic characteristics in turn affect socioeconomic processes which include saving and investment, land and labor utilization, consumption of goods and services, public expenditures, and international trade and finance. The operation of these processes then determines the socioeconomic outcomes in terms of income, employment, educational and health status, environmental quality, etc. The socioeconomic outcomes in turn affect the basic demographic processes we started with.

The basis for identifying these various interrelationships is the growing theoretical and empirical literature on population-development interactions which we shall not review in this paper. Suffice it to say at this point that our basic understanding of population-development interrelationships can be expected to widen and deepen as new information from the social sciences regarding these broad interrelationships becomes available.

An important implication that arises from our integrated approach is that planning must necessarily be pursued with a longer term view than is currently being used, i.e., short/medium term planning as in the case of five-year development plans. The need to take a longer view of the development process is necessary in order to fully account for critical socioeconomic-demographic interrelationships which may require a long time to become evident. As past development experiences suggest, a series of short/medium term plans that simply take demographic factors as exogenous will one day reveal that these demographic factors are seriously constraining socioeconomic development efforts and reducing policy options. The planning approach that is suggested by this integrated approach is one in which a long-term

Figure 2. Simplified Framework of Population-Development Interrelationships



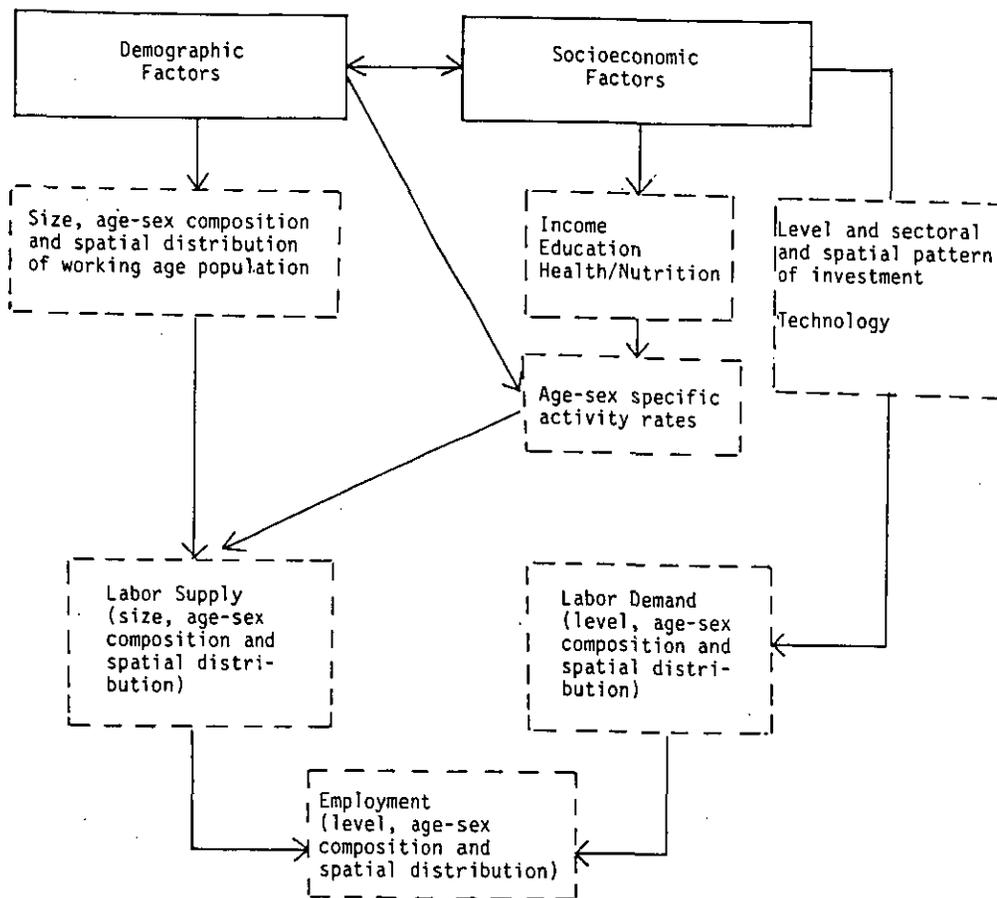
perspective plan is first formulated that takes full account of socio-economic-demographic interrelationships, and then short/medium term plans consistent with this overall long-term perspective are formulated. Short/medium term gains could then be properly assessed in terms of their long term impact towards the achievement of development objectives.

The third element of this integration concept is the set of development policies consisting broadly of socioeconomic policies and demographic policies. Demographic policies affect primarily demographic processes, while economic policies affect primarily economic policies. Both processes jointly affect our development outcomes. It follows then that both demographic and economic policies must be formulated in a comprehensive and integrated, as opposed to isolated, manner to produce the desired development outcomes. It is now more clear than ever after decades of experience with development planning, that either policy pursued in isolation, will have a smaller chance of significantly achieving the nation's development objectives in the long run. Well known historical examples might serve to illustrate the point. On the basis of hindsight, we note that policies and programs to reduce mortality in the early postwar years, while successful in the short run, nevertheless resulted in a rapid population growth in the decades that followed. This made it difficult for socioeconomic processes to adjust adequately to the new demographic realities, thus making the early gains in mortality reduction difficult to sustain in the more recent periods. Similarly, economic policies pursued in the early postwar years to increase the pace of industrialization without explicit consideration of their long term demographic consequences, have led to a pattern of economic growth characterized by a highly uneven spatial distribution of economic activities and resulting in a disproportionate concentration of population in one or a few major urban centers, and in regional income inequalities.

D. Sectoral Planning Perspective

The concept of integration can be readily applied to sectoral planning, i.e., the planning which addresses specific development concerns such as employment, education, health, etc. In this regard,

Figure 3. Simplified Framework for Analyzing the Socioeconomic and Demographic Determinants of Employment



what we need is a more specific formulation of the sectoral objectives and correspondingly, a more detailed specification of socioeconomic-demographic interrelationships as they relate to the determination of the specific sectoral outcomes.

Let us consider employment and examine a more detailed behavioral model derived from the general macro model described earlier. The determination of employment by size, age-sex composition and spatial distribution can be described with the aid of Figure 3. Here we have collapsed the demographic blocks into a single block called "Demographic Factors," and the socioeconomic blocks into "Socioeconomic Factors". For each of these broad blocks we attempt to draw specific elements that are critical in the determination of employment. We note that a major determinant of labor supply is the size, age-sex structure and spatial distribution of the working age population. Nonetheless, labor supply is also determined by the age-sex specific activity rates which in turn depend on both demographic (e.g. fertility) and socioeconomic factors (e.g. levels of household income, educational attainment, health status, etc.). Since males normally tend to exhibit uniformly high rates of labor force participation over a broad age range, a dynamic element in labor supply is the participation of females. All things being equal, labor supply can expand rapidly if more women decide to participate in the labor force. Declining fertility, which may moderate the size of the working age population after a time lag, may not proportionately reduce labor supply if declining fertility also leads to higher labor force participation of women.

Concerning labor demand, a whole range of economic policies affecting the level, structural (agriculture vs. industry) and spatial (rural vs. urban) pattern of investment, as well as the choice of technology (labor biased vs. capital-biased) influence the level and distribution of labor demand. Economic policies that have a long term effect of limiting the growth of employment demand to only a few sectors and areas in the face of the rapid growth of the working age population will obviously exacerbate problems of unemployment and underemployment in other sectors and areas. Likewise, demographic policies that have the effect of reducing the growth of population of working ages in the intermediate run may not be sufficient to solve the employment problem in the face of increasing participation of

women resulting from fertility decline in the current period, and in the face of slow growth of employment opportunities generated by inappropriate economic policies. The need to synchronize demographic and economic policies with regard to employment objectives becomes evident.

Summarizing thus far, we have applied the concept of integration to development planning at both the macro and sectoral levels. Among others, we have noted that the concept of integration has practical implications for future planning activities which might be emphasized at this point. First, development objectives must now be specified in terms of both socioeconomic and demographic outcomes. This requires the development of more refined and disaggregated development indicators where such are not yet available. Issues of equity can be addressed more effectively from the specification of such indicators. Secondly, planning must be undertaken with a longer time frame than is currently being used in order to fully account for critical socioeconomic and demographic interactions whose impacts take some time to become evident. Finally, economic and demographic policies must be formulated as components of the total development policy package to influence both socioeconomic and demographic outcomes.

E. Program/Project Planning Perspective

It might now be instructive to examine how the concept of integration can be applied at the program or project planning level. In our earlier discussion, we noted that the term integration has been used to mean several things such as a piggy-backing of family planning activities on development activities, or an incorporation of population-related activities into well-established socioeconomic programs. We shall note below that these activities, although they might improve administrative efficiency, are not necessary to achieve integration.

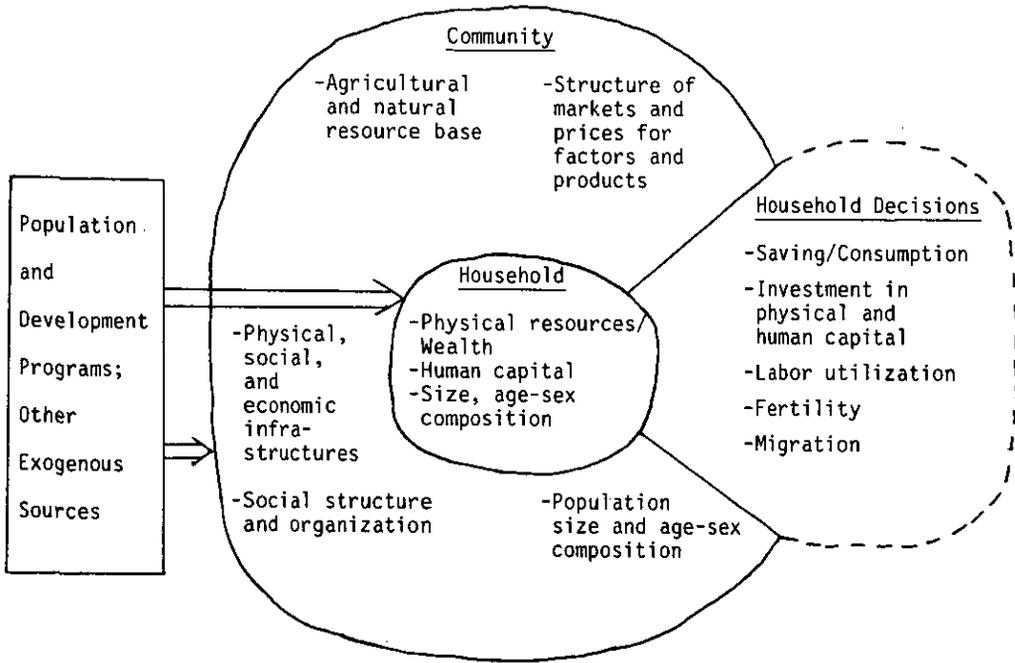
The integration of population and development planning at the program and project level requires consideration of the same three basic elements we have mentioned earlier in connection with macro and sectoral planning, namely, the development objectives, the population-development interactions, and the socioeconomic and demographic programs designed to achieve these objectives. The objectives of any program/project are a subset of the overall development objectives,

and these are specified to address a particular subgroup of the population upon which the program/project is expected to have an impact. In designing programs to achieve certain objectives, we make certain assumptions as to the behavior of the target population, mainly households or individuals. This framework allows us to analyze the impact of our programs on the target population. Integration then implies that we take into account economic and demographic inter-relationships at the household or individual level in the formulation and design of programs to achieve desired behavioral outcomes.

A simple framework for viewing socioeconomic and demographic interactions at the household or individual level is depicted in Figure 4. 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 environment arising from population and development activities.^{2/}

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 as defined by its household resources (physical and human capital as well as 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 non-family labor utilization, and social, economic and political alliances which influence cooperative behavior 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, etc. The final source of change in the environment is the set of population and development programs. These include: (a) provision of physical infrastructures such as roads, irrigation, flood control, electrification, etc.; (b) the provision of social infrastructures and services in the field of education, health, nutrition, environmental sanitation, family planning, etc.; (c) agricultural programs, such as land reform, development of cooperatives, provision of extension services and rural credit, and various input subsidies and price

Figure 4. Simplified Framework for Analyzing the Impact of Population and Development Activities on Household Behavior



supports; and (d) industrial development programs involving the provision of credit and various subsidies to small and large-scale enterprises.

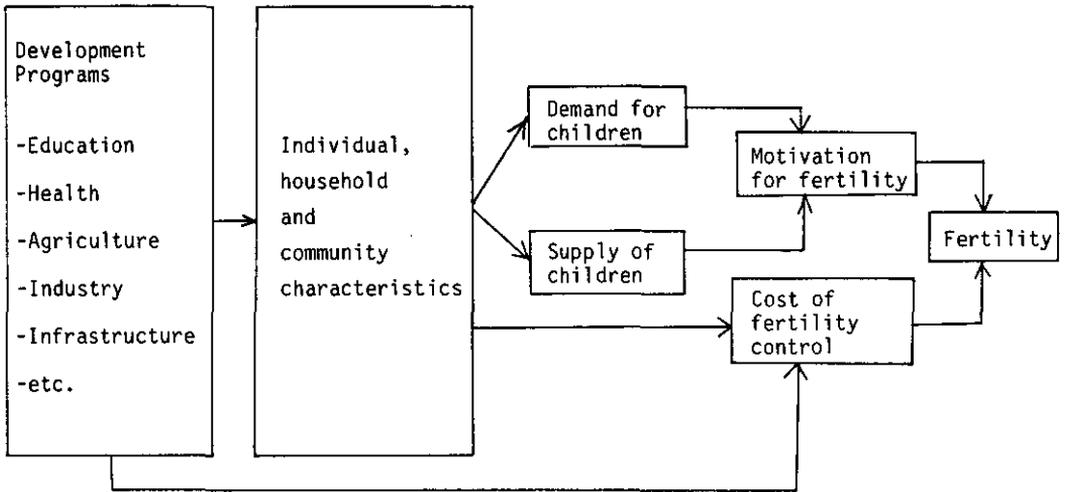
In this framework, demographic and socioeconomic development programs are expected to affect the structure of opportunities and constraints facing the households either directly, by increasing household resources and access to basic economic and social services, or indirectly through the community, by 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, labor 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 which can be influenced by various types of development activities. The implication of this feature for program planning is that programs formulated to achieve a small subset of development objectives may not achieve such objectives if formulated in isolation. For example, programs 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 programs to support modern industry (i.e., policies to keep urban prices of foodstuff low to support a low wage policy in industry, or import controls and tariffs to protect local manufacturing industries producing agricultural inputs). Furthermore, infrastructure programs 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 programs. Finally, family planning programs 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 program 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 behavior, the planner can design various programs with the view that their combined and complementary impacts all lead to the desired behavioral outcomes.

To illustrate this last point, it might be helpful to consider the impacts of development programs and projects on fertility behavior. Without going into detail, one can conceptualize the determinants of fertility behavior as shown in Figure 5. Individual, household and community characteristics determine the demand for, and supply of (surviving) children. In the case of demand, these characteristics include income and the taste for children relative to other goods, the latter being determined by community norms as well as household and individual background characteristics. An increase in income generally makes the household wealthier and more able to afford more goods, including children. However, increased income may also increase the opportunity cost of children, or lower the relative cost of alternative investment opportunities to support future consumption streams and old age security of parents. Both factors will tend to reduce the demand for children. Furthermore, higher income will tend to improve health and nutrition, and therefore reduce infant/child mortality leading to lower demand for births for a given level of desired number of surviving children. Better education and health and higher income could also improve maternal health, nutrition and prenatal care, leading to higher potential supply of births. With lower infant/child mortality, the result is a larger number of surviving children. The motivation for fertility control arises if the potential supply of children exceeds the desired number. Actual fertility is then determined by the degree to which perfect fertility control is achieved so that the desired and the potential number of children are equated. This degree of fertility control depends on the cost (psychic as well as monetary) of contraception which is determined in turn by individual, household and community characteristics that increase effective knowledge and access to such contraceptive techniques.

Figure 5. A Simple Framework for Analyzing the Impact of Development Programs on Fertility Behavior



Development programs affect fertility indirectly through their effects on the determinants of supply and demand for children and on the cost of contraception. A family planning program may directly affect taste for children through Information, Education and Communication (IEC) campaigns, and the cost of contraception by providing better services at low cost. Health programs can affect infant and child mortality as well as the health of mothers, thus affecting both demand and supply of children. Programs that succeed in increasing income and employment opportunities for women will tend to reduce the demand for children, etc. In all these, we can see that various programs, while pursued independently in the administrative sense, can have impacts on fertility. What is needed from an integrated standpoint, however, is to see that each program is in fact having the desired impact on individual, household and community variables that contribute to fertility change. As a result of this evaluation, it may be decided to strengthen some programs or modify others. In any case, an integrated approach does not mean establishing a completely new set of programs to deal with all the determinants of fertility. Many development programs were already in place long before government family planning programs came into being. A family planning program need not be tied to an existing development program; it can be administratively implemented independent of other programs without compromising the concept of integration. Likewise, a family planning program need not adopt artificial "entry points" to be acceptable to the potential target population. A whole range of programs are already being implemented in the community. It can be brought to the attention of potential clientele that this family planning program is yet another community undertaking to improve standards of living and quality of life. The entire information strategy of the family planning program could in fact point to development programs already in place to improve its motivational efforts. One could emphasize, for example, the potential difficulty that households could face in taking full advantage of new opportunities generated by the various community development programs under conditions of very rapid and uncontrolled fertility. This implies, however, that family planning personnel are knowledgeable about the development programs being implemented in the community and the extent to which these programs are achieving their specific objectives.

IV. Potential Gains From Integration

Thus far we have described the concept of integration in the context of development planning and programming. In doing so, we have alluded to the gains that can be achieved from such integration. It is worthwhile at this point to make explicit what these gains might be.

If development planning is being undertaken to achieve a more efficient allocation of the nation's scarce resources, then the integration of population and development planning can be expected to improve the prospects for greater allocative efficiency. Let us examine how integration can improve such prospects.

First, if socioeconomic and demographic factors are indeed inter-related, then policy decisions based on cost-benefit analyses that do not take full account of such interactions will tend to be biased, leading to misallocation of resources. For example, industrialization policies and programs that do not take into account their implication for the spatial distribution of economic activities and the consequent impact of this on the spatial distribution of the population could indirectly lead to such adverse long run consequences as regional income inequality, increased pressure on employment and basic social services in one or a few urban centers, deteriorating income and employment prospects in the countryside, etc. These unintended consequences are added costs that should be taken into consideration when judging the merits of alternative development strategies/policies and programs. Failure to incorporate these costs implies overallocation of resources in this line of activity.

Examples at the program level will illustrate this point further. Consider an irrigation program that has for its major objective the increase in income and employment of its target population. This program, in addition to having an impact on income and employment, could also indirectly increase the incidence of schistosomiasis in the target population and surrounding areas. Failure to account for this unintended health, and possible mortality, consequence would tend to overstate the calculated net benefits of the program, and therefore, lead to overinvestment in irrigation facilities. Similarly, a family planning program's net benefits may tend to be understated if only its fertility reduction effects, but not its effect on the health of

mothers and their children, are considered. The result would be an underinvestment in family planning programs.

The advantage of integration over other planning approaches is that, in explicitly considering the socioeconomic and demographic interactions in the formulation of development policies and programs, the indirect and unintended socioeconomic and demographic consequences of these policies and programs over the short and the long term can be more effectively identified and taken into account in cost benefit analyses used to judge the relative merits of alternative policies and programs. The population-development framework facilitates the identification of such indirect and unintended short and long term consequences.

Secondly, integration of population and development planning tends to promote greater consistency in the formulation of the overall development plan. This arises from the fact that short and long term socioeconomic and demographic consequences of specific policies and programs on other policies and programs can be systematically identified and accounted for prior to the final formulation of the overall plan.

Thirdly, integration of population and development planning tends to facilitate coordination among development agencies in designing and implementing programs. For example, we indicated earlier that an irrigation program might have implications for the increased incidence of schistosomiasis. In the planning of this program, this identified potential unintended consequence can be communicated to the health agency so that such an agency can incorporate activities in its usual range of activities to deal with this potential problem. Alternatively, the health agency might help design a health component to be implemented by the irrigation program. In either case, the timely identification of a potential problem could prevent its occurrence or minimize its adverse impact.

Finally, the integration perspective facilitates specialization of function by different development agencies. With an explicit population-development framework, the direct and indirect effect of an agency's program will be clearly identified and accounted for in the early part of the planning process. The programs of other agencies would already have been so designed or redesigned to take account of externalities arising from a particular agency's activities. This

allows a particular agency to concentrate its efforts on activities that will directly contribute to the achievement of overall development objectives. With specialization comes greater efficiency. For example, family planning programs need not be designed with too many socioeconomic development frills to make the program effective on the assumption that socioeconomic factors are important for its success. More often than not, the extra program efforts to influence socioeconomic development in the community (e.g., through implementation of income generation activities for family planning users or potential users) will be puny and ineffective anyway (there are already many development programs in place which are much larger in scale and potential impact). As a result, program resources are wasted on these side activities rather than being used more directly to provide better information and wider access to contraceptive methods to the target population. In the integrated approach, the socioeconomic factors important for the success of the program would have already been addressed by other specialized agencies more qualified than the family planning agency in terms of expertise, manpower and resources.

V. Steps Toward Integration

Having discussed the meaning of integration from a development planning and programming perspective, it is now necessary to specify the steps needed to make integration a reality. The following practical, non-mutually exclusive steps might be considered.^{3/}

Since we have defined integration as the explicit consideration of population-development interrelationships in the formulation of policies and programs, then it follows that the first necessary step in the integration process is for planners to gain confidence in their ability to analyze population-development interrelationships and to begin to use such information, even at first qualitatively, in the formulation of policies and programs. Some amount of useful integration could already be achieved at this point. Among the population-development interrelationships that might fruitfully be considered as starting points are those related to migration and spatial distribution of economic activities, and those relationships centering around health/nutrition, education, contraception, fertility, and mortality. Closer interaction between social scientists and planners in further

synthesizing currently available information on these interrelationships should be encouraged.

Second, as confidence is gained in analyzing, at first, a limited subset of population-development relationships, the range of variables to be considered can be expanded. At the same time, quantitative indicators of critical variables can be specified so that data adequacy can be assessed and data collection can be more systematically planned. In this connection, there may be a need to review socioeconomic and demographic indicators currently available to determine whether a more refined set, i.e., development indicators that are population-denominated, can be constructed according to the manner that development objectives are specified. For example, it is no longer adequate to merely have indicators of output or aggregate income. One must be able to disaggregate these indicators to show household/personal income by specific subgroup of the population. The rationale for this is that it is not enough that development policies lead to increased aggregate income. What is also essential is that the increased income is experienced by the specific population subgroups most in need of income gains. Unless our development indicators can quickly pinpoint such groups, it might be difficult to assess the impact of policies and programs. More practically, in addition to the collection of data on national income, sectoral incomes, functional income shares, etc., it is also essential to collect, *regularly and accurately, household or personal income data*, which are still inadequate and not timely enough for planning and impact evaluation purposes at the present time.

Third, a socioeconomic-demographic model needs to be constructed to test the quantitative significance of socioeconomic-demographic relationships in a country-specific setting. The results of these tests should provide the needed refinements in policy analysis made earlier at a qualitative level. It is important that this quantitative socioeconomic-demographic model starts out initially as "small", reflecting the ability of planners to handle each stage of the integration process confidently. It is also important that the construction of the quantitative model involves planners at the early as well as later stages of construction. They can then learn to use the model for policy analysis once it is completed, and the most pressing policy issues with which they are currently confronted can be ad-

dressed effectively by the model. Perhaps the tragedy of recent efforts at economic-demographic modeling is that these models were often too big to start with and were often constructed by outside groups with little interaction with the planners who were to be the users of these models. The result, more often than not, was that these models were rarely used for policy analysis, partly because the planners did not know how to use them. As new data and information on population-development interrelationships become available, both conceptualization and modeling activities can be refined and expanded accordingly.

Fourth, in addition to aggregative macro models, there is a need to test socioeconomic-demographic interrelationships at the micro level. This requires the conduct of systematic impact studies of programs to determine the extent to which programs contribute directly and indirectly to the achievement of development objectives. This information not only helps to validate broad macro interrelationships but is also essential for determining appropriate programs in the future.

The above basic steps can be expected to enhance the opportunities now available to operationally integrate population and development planning while at the same time minimizing, if not eliminating, some of the real or perceived constraints towards such integration. These constraints have usually been expressed in terms of such statements as: "Our understanding of population-development relationship is incomplete," "Currently available knowledge though suggestive of a variety of relationships is rarely conclusive," "There is a lack of reliable data on population in relation to socioeconomic conditions," "There is a scarcity of tested methodologies for integrating demographic factors and policies into planning," and "The paucity of operationally useful research findings on population-development interrelations is, in part, due to inadequate communication between researchers and planners." (See Horlacher, 1981; Jones, 1982). The elimination of these constraints might be looked upon more fruitfully as the result of efforts toward integration, rather than as a prior condition for initiating the integration process itself.

VI. Current Philippine Efforts at Integration

The lack of integration of population and development planning in the Philippines, as perceived by planners, has been traced to three related problems: (a) unclear institutional responsibility regarding which agency should be primarily responsible for promoting such integration; (b) lack of technical skills in analyzing population-development interrelationships; and (c) lack of information on critical aspects of population-development interrelationships.^{4/} In 1981, a Population and Development Planning and Research Project was launched by the National Economic and Development Authority (NEDA) with the aim of effectively addressing the above problems and to pave the way for the integration of population and development planning at the national, regional and sub-regional levels. The project has three components: (a) an institution building component designed to establish and strengthen institutions which can coordinate, guide and support population-development planning integration efforts; (b) a training component designed to improve planning capabilities especially in analyzing population-development relationships; and (c) a research component designed to provide information on population and development factors and their interrelationships to be used as input for integrated planning.

Since 1981, the project has made significant progress with respect to each of the three components. With respect to institution building, Population/Development Planning Units were set up within the NEDA central office as well as in three NEDA regional offices. At the sub-national level, the strategy adopted was to start institution building first in three pilot regions and then to expand such efforts into all regions in the future as experience is gained and evaluated. Institution building also involved strengthening existing academic and research institutions which are expected to provide training and research support to the integration activities coordinated by the NEDA.

With respect to training, several activities have been implemented. First, orientation workshops and seminars for NEDA and line agencies' planning staff have been conducted at both the national and the three pilot region levels. Several intensive training sessions on population-development relationships and their implications for integrated planning, lasting for either one or two weeks, have been under-

taken for various categories of planners. The participants included the NEDA central and regional planning staff, planners from various line agencies, central and regional staff of the Commission of Population (POPCOM), and development staffs of provincial and city governments of selected regions. The training content included analysis of population and development interrelationships as well as methodologies for impact evaluation of development programs. Experts from academic and research institutions as well as from the NEDA planning staff formed the training core. Various training and reference materials have been prepared both in relation to population-development interrelations and to impact evaluation methodologies.

The experience with the training activities has highlighted the fact that the rapidly growing information of population-development interrelationships has somehow remained largely within the confines of academic and research circles. Planners and population program managers have not benefitted equally from such information. It is both gratifying and disturbing to sense during training activities that planners, on the one hand, are just beginning to appreciate more fully the nature of population dynamics, and that population program managers, on the other hand, are just now being exposed more systematically to the broad constellation of socioeconomic forces which determine demographic processes which they hope to influence with their programs. It should be emphasized that what is needed is not only for these planners and program managers to gain familiarity with population-development interactions, but more importantly, for them to gain confidence in their ability to analyze various dimensions of population-development interactions as a standard activity both in viewing the entire development process and in formulating policies and programs.

Finally, with respect to research, the project has set up mechanisms for systematically identifying research issues through consultative workshops involving planners, academics and researchers, as well as for effectively carrying out various research projects in support of the integration process through the strengthening of research institutions and the upgrading of skills of research personnel. Since 1981, several major research activities directly sponsored by the project have been completed. These activities complement other research conducted by other agencies. These research outputs

the construction of an economic-demographic model which updates and improves upon previous Philippine models, a comprehensive set of population projections using the 1980 census data as the base, an updating of the demographic profile of the Philippines, and several micro studies dealing with the impacts of selected development programs in the pilot regions. A major feature of these research activities is that they were formulated and carried out either in collaboration or in consultation with planners. The motivation for this approach is that research results will be more useful to planners if the research addresses issues of important concern to planners, and if the results are made available at the time they are needed. Thus, in addition to the usual requirement that the research meets scientific standards of quality, relevance and timeliness are important considerations.

It is too early to assess the impact of all these efforts on the actual integration of population and development planning in the Philippines. It is heartening to note, however, that some attempts at integration are evident in the preparation of the Updated Philippine Development Plan 1984-87. Qualitative statements reflecting the consideration of population-development are found in key sections of the plan. For example, in the strategy for "Regional and Human Settlements Development," we find the following analysis:

The development of the regions will be pursued based of the balanced agro-industrial development strategy. Efforts will be directed toward modernizing agriculture to increase the sector's productivity while at the same time encouraging agro-based small and medium industries. This approach will strengthen the linkages between agriculture and industry and also integrate the socioeconomic activities between rural and urban areas, thus reducing inequities in development. The pursuit of a balanced growth of sectors and regions as well as of urban and rural areas is, in turn, expected to result in a narrowing of the inter-regional and urban-rural welfare gaps. This will promote balanced spatial distribution of people and eventually reduce population growth rates, particularly in the rural areas.

Likewise in the section on "Strategies and Policies for Financing and Implementing the Development Plan," the plan notes:

. . . resource allocation decisions will consider the indirect costs and benefits of development programs and projects interacting on one another in order to maximize reinforcing effects and minimize those which offset the attainment of the objectives of one program versus another. In this manner, the inefficient use of resources will be reduced.

Furthermore, sustained commitment to the integration of population and development planning is evident in current efforts to review planned or recently implemented programs with the purpose of determining their population-development implications. These programs include the Regional Cities Development Project, the National Industrial Estate Program, and the Land Settlement Project.

In sum, while the full integration of population and development planning will take some time to achieve, it is expected that current efforts in this direction will cumulate through the "learning by doing" process towards the full achievement of the integration objective.

Notes

- 1/ The description of the development planning process in terms of three major elements (goals, policies and behavioral model) has greatly profitted from V.B. Paqueo's excellent exposition of those elements during training programs that we have participated in together. This general framework is adopted here to serve as a vehicle for clarifying the concept of integration of population and development planning.
- 2/ Rough outlines of this framework came out of discussions at the "Workshop on the Fertility Impacts of Development Activities and Agricultural Practices: A Search for Linkages," held in Thailand in 1981 and sponsored by the Population Council.
- 3/ These have been suggested earlier in Herrin (1983).
- 4/ National Economic and Development Authority, various unpublished project documents.

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