

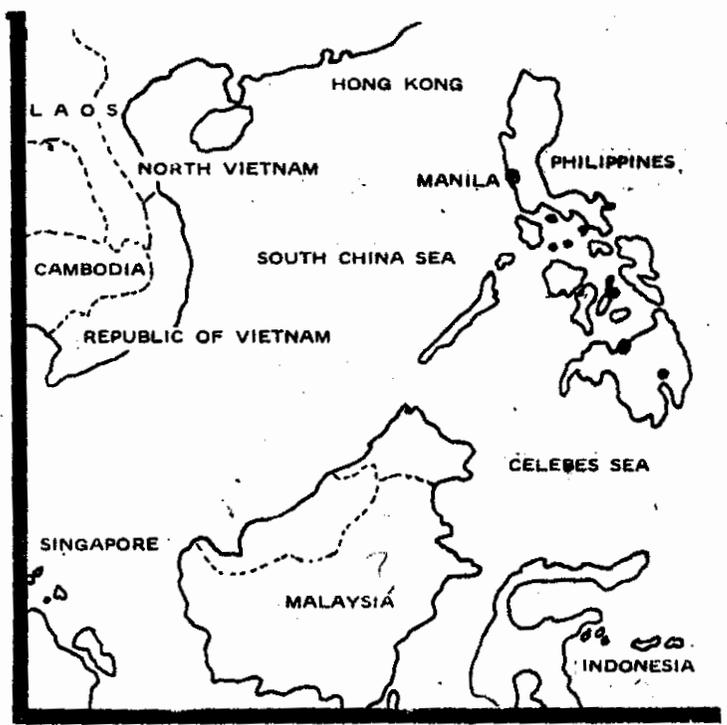
Development Assistance Program for the Philippines

**USA ID/Philippines
December 1974**

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for the Philippines**

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THE PHILIPPINES

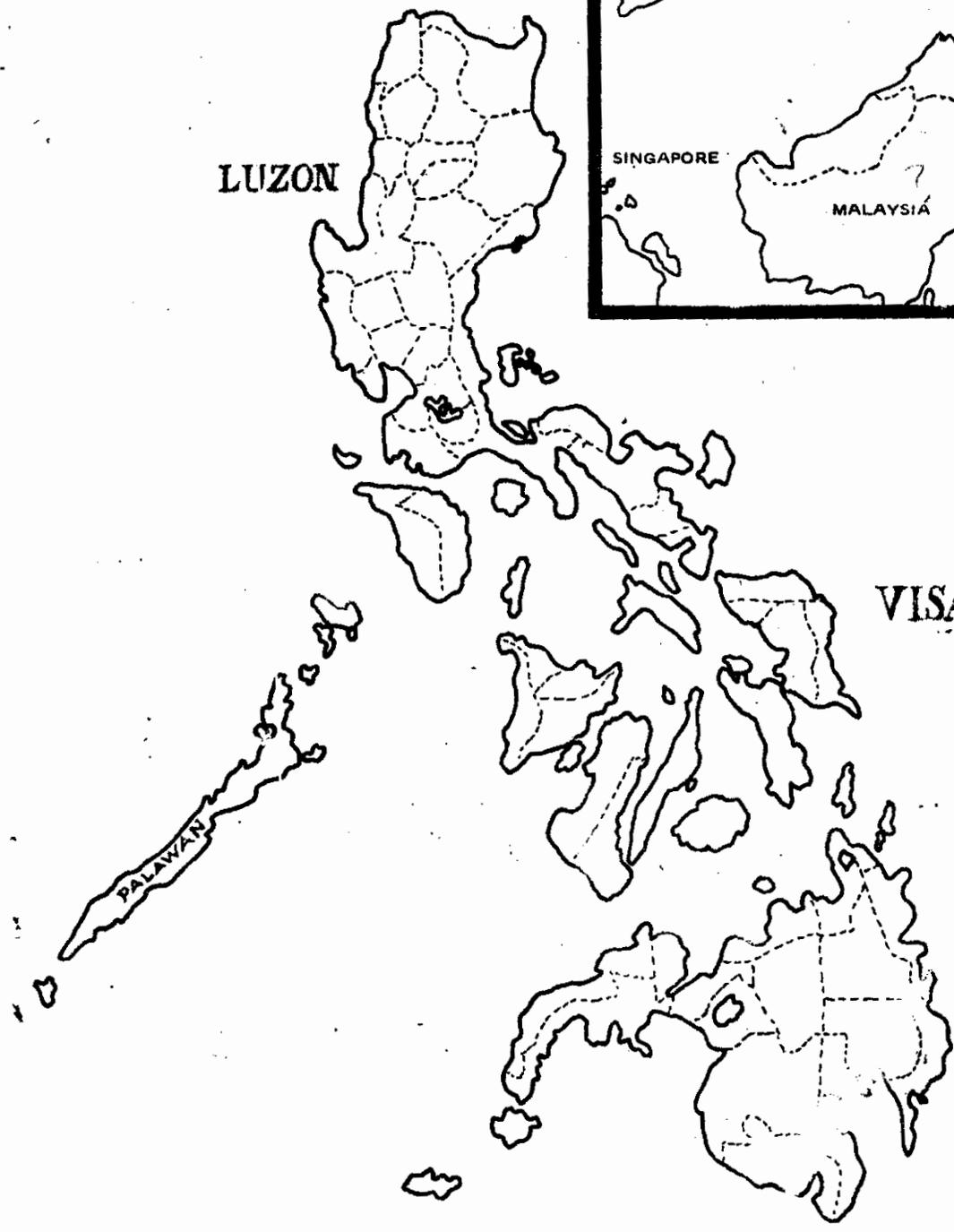


LUZON

VISAYAS

MINDANAO

PALAWAN



THE PHILIPPINES/USAID DEVELOPMENT ASSISTANCE PROGRAM

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THE DEVELOPMENT STRATEGY

INTRODUCTION

This document, the Development Assistance Program for the Philippines, is a formal presentation of a concept of and plan for development which have evolved during the past three-four years. In that sense, the DAP has been in process of preparation for a long time. It presents U.S. Mission views on the rationale for U.S. economic assistance and the strategy and programs which that rationale dictates. The validity of these views will be tested by the results achieved: benefits delivered to the least advantaged segments of the Philippine population during the coming years.

In our view the rationale is straightforward and clear: it is in our own interest as well as in the interest of the Philippine people that the economic and material conditions of life of the majority of Filipinos be improved; and accomplishment of that improvement requires not only tremendous effort by the Philippine Government and people but substantial assistance from external donors, including ourselves.

The strategy which we have presented has been formulated in careful collaboration with the Philippine Government. It is an integral part of the total package of external development assistance which is coordinated through the IBRD-chaired Consultative Group. Consistent with our Congressional mandate it is a strategy which puts people, particularly poor people, at the center of our intentions and efforts.

Accordingly, our programs are designed to deliver lasting benefits directly to substantial numbers of the rural poor. To optimize benefits, these programs are concentrated in only three sectors: Population/Family Planning, Nutrition and Rural Development.

We believe that with continuation of the current will for development and effective use of proposed resources, the Philippines can achieve major progress during the coming years in improving the living conditions of its people.

The Philippines: A Country Profile

<u>Area</u>		<u>Density</u>	
297,000 km ²		140 per km ²	
<u>Population</u>		<u>Population Characteristics, 1970</u>	
41.5 million (mid-1974)		Crude birth rate (per 1,000)	41.4
Rate of growth: 3.0% (estimated from 1960-1974)		Crude death rate (per 1,000)	11.4
		Total fertility rate	6
		Dependency ratio (%)	87 <u>a/</u>
<u>Gross National Product, 1973</u>		% Rural	68
GNP (million US \$)	\$10,490		
GNP per capita	\$ 250		
<u>Employment, 1973</u>		<u>Income Distribution, 1971</u>	
Labor force (millions)	13.9	% of national income, highest quintile	54.0%
Unemployment rate (%)	4.5	fourth quintile	21.0%
		third quintile	13.3%
<u>Education</u>		second quintile	8.1%
Literacy rate (%)	83 (1970)	lowest quintile	3.6%
Primary school enrollment ratio (%)	112 (1971)		
<u>Health, 1972</u>		<u>Nutrition, 1970</u>	
Infant mortality (per 1,000 live births)	65 <u>b/</u>	% sufficiency of daily per capita consumption to recommended dietary allowances.	
Life expectancy at birth (years)	59	Calories	84%
Population per physician	3,000	Protein, grams	93%
Population per hospital bed	900	Fat, grams	73%
<u>Access to Electric Service, 1973</u>		<u>Access to Potable Water, 1973</u>	
% of population	30%	% of population	45%
<u>Transportation, 1973</u>		<u>Communications, 1973</u>	
Kms per km ² of land area		Persons per telephone	100
Philippines	.24		
Manila	20.7		
Persons per km.	500		
Hectares of cultivated land per km of feeder road	470		

a/ Ratio of population from 0-14 years and 65 years and over to population from 15-64 years.

b/ No. of deaths under 1 year per 1,000 live births.

THE DEVELOPMENT STRATEGY

THE GOALS

The United States has an interest in the economic well-being of the Philippines. This interest is in part sentimental. The Philippines was formerly a colony of the United States and is now our oldest ally in Asia. As a nation, we have a great affection for the Filipino people, who have reciprocated by considering themselves close and dependable friends of the United States.

Over and above sentiment, however, it is in our interest for pragmatic reasons that the Philippines should be financially viable, that its economy should be robust, and that its people should be prosperous. Moreover, it is in our interest, as well as the interest of the Philippines itself, that the prosperity should be shared equitably and with social justice by all Filipinos.

If it were otherwise, the Philippines could become either a heavy drain on American resources required to sustain it, or else a vulnerable weak spot in Southeast Asia which would invite external subversion, internal revolt and general instability. If either of these unhappy situations were to eventuate, it is predictable that the United States would be drawn into an unpleasant, costly, and eventually hopeless involvement which would have disruptive consequences both internationally and domestically.

THE PROBLEMS

Therefore, the United States should study the economic problems confronting the Philippines, have a clear understanding of what is required to cope successfully with them, and make a careful calculation of what contribution we should make to that effort. We need not do this in a vacuum, because the Philippine Government has taken a vigorous lead in addressing the situation itself and many other authorities, notably the Japanese Government and the international lending organizations are prepared to do their share.

The economic problems of the Philippines can be stated in fairly concrete terms. They involve the pressure of population on developed resources and the need for restructuring a traditional and dualistic society which has been overtaken by vast technological and, to a lesser extent,

social change. The population of the Philippines, when it regained its independence in 1946, was approximately 20 million. In 1974, it is about 42 million and an estimated one-third of these are malnourished or are receiving diets considerably below standard. At current growth rates, the population would exceed 85 million in the year 2000. This means that, in the next 26 years, the Philippines must feed an average of more than 1.5 million additional people each year. It also means that work must be found for 600,000 or 700,000 new job-seekers each year.

These factors make it clear that the Philippines must run fast merely to stay even with itself. But, unhappily, there is very little running room left in the Philippines. While estimates of the amount of arable land not under cultivation vary, signs of the closure of the land frontier for Philippine development are apparent. Therefore, solutions to Philippine economic problems have to be found not in extensive agricultural techniques but rather in increased agricultural productivity and diversification and geographically dispersed and greatly increased non-agricultural employment.

Given the nature of the development problems facing the Philippines, there is a consensus generally shared by most observers, both Filipino and foreign, on the manner in which development problems should be addressed. From this consensus, a program has been fashioned, although not always coherently articulated. It is considered useful, at the outset of this Development Assistance Program paper to state the concept of this program concisely and specifically. Essentially, it consists of six dominant lines of action, all of which must be pursued simultaneously.

THE SOLUTIONS

1. The first, and most critical, line of action concerns the reduction of rapid population growth, through the provision of family planning ser-
vices and other measures designed to generate greater social support for lowered fertility. The Philippine Government is actively pursuing this line of action through the establishment of clinic services, information and outreach motivational activities, non-clinical and expanded commercial distribution of contraceptives and the integration of population/family planning objectives in other development efforts such as health education, provincial planning and local government. Improved nutrition efforts also have a close relationship to the success of the family planning program. Since the current rate of population growth in the Philippines is calculated at about 3% per annum, family planning will require constant and long-term attention, particularly in the countryside, if it is to succeed.

2. The second, and perhaps equally complex, line of action concerns reformation of the agrarian order through measures designed to increase the production of food crops, export crops and other agricultural produce and to assure that the benefit of the increase accrues to the small scale producer. These measures include the distribution of land to tenant farmers on rice and corn lands, the provision of banking credit to farmers on

favorable terms, the introduction of new seed varieties, fertilizers, pesticides and other improved agricultural techniques, the elaboration of agribusiness ties between town and country, the establishment of co-operatives for storing and marketing crops, the construction of irrigation projects, feeder roads, and other infrastructure, the dispersion of non-agricultural sources of employment more widely into the countryside, as well as a general educational improvement of farmers and homemakers through extension services.

3. As a complement to these first two lines of effort, a major program is being evolved to disperse light industry and cottage industry into the countryside. This program has for one of its major purposes the absorption of the growing rural population into productive non-agricultural enterprise. In this way, it is hoped to forestall two traditional trends of the development process, i.e., the uneconomic subdivision of the tillable land and the large scale internal migration of ill-equipped rural dwellers to urban areas ill prepared to absorb them. The key steps in this line of action involve provincial level infrastructural development, including a program of rural electrification, designed on a nationwide basis to make rural industry, as well as agriculture, more efficient and feasible.

4. The fourth line of action is the development of basic infrastructure such as trunk roads, flood control projects, water supply systems, electric generation projects (hydro, thermal, nuclear, and geothermal), railroad, port, and bridge construction, and all the other capital intensive work which has been traditionally associated with the industrial development process.

5. The fifth line of action is the expansion of basic industries, especially those which can prepare and fabricate the raw materials which are currently produced in country but exported elsewhere for the more advanced phases of refining and processing. Ancillary to this expansion is the expansion of consumer product and service industries, to cope both with the increase in population and the expected rise in the standards of living.

6. The final line of action attempts to increase participation in the development process. The focus is on the more effective marshalling and use of human, organizational and financial resources for development purposes, largely through decentralization of planning and implementation functions down to the regional, provincial and, ultimately, barrio levels.

These six lines of action constitute a coherent plan for dealing with the main economic and social problems of the Philippines. Despite the long existence of the problems, the planned approach is rather recent in origin. It has yet to be statistically refined to the point that particular goals (e.g., in population, GNP, per capita income) can be established accurately against defined periods of time. These will doubtless materialize in due course. But both internal and external development managers will have to exercise great caution to be reasonably certain such goals are realistic

as far as their potential achievement is concerned at one end and, in terms of their adequacy in terms of needs and expectations at the other.

At the current moment, with the world economy, international trade, and commodity prices in a state of extreme flux, it would be imprudent for the Philippines to attempt to calculate with precision just how many and what resources it can bring to bear on its development programs in any but the near term. Nevertheless, medium and long term strategies and basic goals have been broadly defined and generally accepted. They will need to be continuously refined and sharpened. Multi-year development plans are formulated and revised approximately every other year and function as guidelines for selection of activities and for resource allocations. For the time being, therefore, progress is being made pragmatically, keeping all six major lines of action open with the resources tangibly available or foreseen.

If and when the world economy settles into more predictable patterns, effort should be made to set quantifiable goals to be achieved at specified intervals of time, probably aimed at an ultimate achievement point which would be coterminous with realization of a relatively stabilized population size, at minimum a 25-year planning horizon. Within the context of these uncertainties, medium and short-range goals need to be formulated centered on per capita income targets for the poorest elements of the population and on related measures such as food consumption and availability of a range of social services. The time required for achievement of these goals will, to a large extent, be a function of the levels of resources devoted to them and the effectiveness of program implementation.

THE RESOURCES

In broad terms, at current dollar values, the Philippines is looking in this decade towards public and private investment of well over two billion dollars a year in economic development activities. Much of the required investment will continue to be borne by the private sector as well as financed by domestic savings. Public investment, however, is expected to expand rapidly, increasing its share in total investment from a current level of 12 percent to 18-20 percent by the end of the decade. Beyond this decade much scope will continue to exist for increasing public investment. The projected share of the government in total investment by 1980 is half of that of Taiwan in 1973.

Based on its recent balance-of-payments projections for the Philippine economy, the IBRD has concluded that about \$1.2 billion in external capital per annum is needed currently in order to sustain import growth consistent with investment requirements, and to provide for amortization of external debt and other capital outflows. If inflationary pressures continue beyond projected levels this figure could easily exceed \$1.2 billion.

Partially due to a comfortable reserve position, Philippine credit ratings both in terms of government borrowing and of private industrial borrowing, are high and therefore loans are available for the various lines of action encompassed in the development program from international lending

institutions and from private banks. The current debt service ratio of Philippine obligations against current foreign exchange earnings is about 15%, which means that loans currently being serviced or contemplated are manageable. However, with international credit being as tight as it currently is, there are definite limits to the amounts which can be expected to be acquired through these means in the near future.

Therefore, if its development program is to be carried through successfully, the Philippines will need funds on concessional terms on a bilateral basis from friendly governments and from the international lending agencies. In recent years, since the establishment of the Consultative Group for the Philippines which meets annually, usually in Paris, several donor nations, led by the United States and Japan, have contributed regularly to various aspects of the development program, partly through grant aid, but mostly through concessional loans.

If the external assistance to the Philippines is to be further rationalized and placed in better relationship to the lines of action being pursued in the development program, it ought to be possible to allocate certain areas of concern to the various sources of both internally generated and externally supplied funds. It also ought to be possible to make some rough division between those elements of the economy which will be fomented primarily by the private sector and those which will require Government stimulation, leadership or investment.

In general, the formation and expansion of basic industries can be left to the private sector. The funding for these enterprises can come in part from private domestic savings and in part through private borrowing from foreign banks or through private foreign investment. Government may have some association with the process through the development of tax or other incentives, through loan guarantees, or through the functioning of export-import banks.

Basic infrastructure, on the other hand, should clearly be a governmental responsibility. Primary resources for basic infrastructure should, and do, come from the national budget. As far as external resource requirements are concerned, it would appear that international lending institutions, such as the IBRD and the ADB, are best equipped to supply them. Some foreign governments, such as the Japanese, also seem to prefer channeling their assistance to infrastructure projects of major dimensions. This should be encouraged and reinforced by greater technical assistance and use of feasibility studies to identify and formulate important infrastructure projects.

It is in the other four lines of action that the problems are most complex...Population/family planning, agrarian reform, rural industry and infrastructure (including institutions) and broadened participation in the processes of development. These "people-intensive" programs depend more upon adroit execution than they do upon massive infusions of funds. Nevertheless, a very necessary part of the art is to learn and know just where funds should be spent and how they should be directed. The costs of these

four lines of action may be significantly less, over the years, than the costs of the other two and immediate payoffs are likely to be more obvious. In any case, if the Philippines is to solve its basic economic problems, it must succeed in effectively resolving these lines, or all the "successes" in the other fields may not be sustainable or particularly meaningful to individuals.

IMPLEMENTATION APPROACHES

This development imperative forms the basic rationale for the U.S. development assistance strategy. This strategy in turn is based on the Philippine development strategy which proposes to move the country's economic system from the narrow participation and unbalanced growth of the past to the broad participation and balanced development of which it is capable in the future. This move requires, among other things, that the Philippines seek to mobilize the rural sector in a balanced, persistent and sustained fashion, and permit the expansion of the industrial sector into the rural areas. This strategy is required so that the rural economy can hold its people in productive employment, absorb a substantial proportion of the inevitable increments in population and generate the rural surpluses of which it is capable and which are needed by the rest of the economy. The large, regionally diversified rural sector must be mobilized in terms of the accelerated growth of both agricultural and non-agricultural employment and output-creating activities over a widely dispersed area of the Philippines.

Close to seventy percent of the Philippine population (who are the major long-term beneficiaries of the AID assistance program in the Philippines) reside in the rural areas. It is in these areas that poverty within the Philippines is the greatest. Twelve of the fifteen million Filipinos who fell in the lower 40 percent income distribution bracket in 1971 resided in rural areas. Within these areas there are considerable regional variations in income levels and poverty. In terms of total numbers of people, poverty is most serious in Southern Tagalog, Eastern Visayas and Southwest Mindanao, but in terms of the incidence of poverty in the population, Ilocos, Cagayan Valley, Bicol and Eastern Visayas stand out.

By emphasizing rural development, including integrated area development where appropriate, the Government hopes to make some progress in reducing these inequalities in regional living standards and in improving the opportunities for economic and social advancement. Some of the large, capital-intensive projects that may start later this decade with IBRD, ADB and Japanese assistance, combined with AID rural development achievements, could provide new growth poles. In the past decade, the Central Luzon-Southern Tagalog regions and Mindanao have been the two main growth poles and they now account for a large share of the nation's output. Because the Greater Manila area and Mindanao each appeared to present greater access to opportunities for economic advancement, they attracted large numbers of people from other parts of the country, particularly the Visayas and Bicol regions.

Over the past decade about 1.3 million people have moved out of the Visayas and the Bicol. Perhaps as many as a million went to the Greater Manila area and a third of a million to Mindanao - particularly to southwest Mindanao. While such a high inter-regional mobility of population in response to economic opportunities may allow for a more efficient resource allocation in the long run, it has created formidable social and economic problems in the near-term. The social costs of the Manila agglomeration have been mounting. Despite relatively rapid growth in industrial capacity and output, the continued flow of rural migrants into Manila has produced urban wage stagnation in real terms, continued unemployment and high rates of underemployment. The increased unrest in Muslim Mindanao underscores the social and political tensions generated by the spontaneous movement of large numbers of settlers from the Visayas onto apparently unoccupied land - traditional Muslim land. Solutions to urban poverty and to the peaceful development of Mindanao are heavily dependent on progress in dealing with rural poverty, especially in the Visayas and Bicol as well as other areas.

The Philippine Government policy framework and direction are increasingly in harmony with the lines of action outlined above. Its development program is based on the understanding that the Philippine private sector will continue to exercise responsibility for a major portion of Philippine economic and social development. Private organizations and individuals, both foreign and domestic, will run an expanding and increasingly complex range of enterprises, raise capital and provide technology for the country's development. However, a critical and growing role will be played by the Philippine public sector. It will have to finance and execute (employing the private sector to a large extent) the country's physical infrastructure program. It will have to conceive, organize and carry out a range of programs to support agricultural and industrial production and to strengthen development institutions and it will have to provide a framework of economic and financial policies appropriate to the country's development needs.

The past five years have produced enormous improvement in the Philippine Government's ability to plan and manage the country's development efforts. One of the most important factors in this improvement centers on the strengthened commitment of national leadership to the country's economic and social development and the increased effectiveness with which that commitment can be translated into intended policies and actions. President Marcos and key members of his administration are responsible for a range of policy decisions which have defined national needs, prepared expanded development programs and strengthened the economy's capability to carry out these programs. Philippine Government revenues have increased almost fifty percent annually for the past two years, and development spending increased by over 150 percent in fiscal year 1974. During fiscal years 1975-78 the Philippine Government plans to finance about 80% of its development programs from domestic sources and the remaining 20% from foreign sources. If comparable progress in raising domestic revenues and expanding exports could be maintained over the next ten years the foreign share of Philippine development financing could be expected to decline steadily. On the other hand, either a precipitous or premature decline in domestic

effort or foreign inputs in the face of the Philippines demonstrated commitment and absorptive capacity could result in a serious deterioration of the development environment and prospects.

THE DONORS ROLE

The support of foreign governments and international development institutions for Philippine development is expected to rise in the near term (but at a much slower rate than that of the Philippine Government).

Foreign economic assistance, for the present, provides important and substantial support to Philippine development. The foreign role is a selective one with areas of concentration worked out within the loose context of the Philippine Consultative Group or bilaterally in accordance with the needs of the Philippines and the particular interests and capabilities of the individual donors. The Consultative Group is chaired by the International Bank for Reconstruction and Development which expects to be providing upwards of \$200 million annually in economic assistance to the Philippines for the next several years. The Bank's areas of primary interest include transportation, power, irrigation and industry. Indications are that future Bank lending will continue to be concentrated on public infrastructure and industry. However, the Bank clearly wishes to provide an increasing level of assistance to agriculture and to social sectors such as population, health and education. Japan is expected to continue economic assistance to the Philippines in the \$75 to \$100 million annual range for some years also with an increasing portion in the form of project rather than commodity type loans. Japanese areas of interest have not been as well defined as those of other donors, but transportation, power distribution, irrigation and integrated development are likely to be expanding areas of interest. The Asian Development Bank is expected to provide upwards of \$75 million annually to the Philippines for the next five to ten years for programs in power, irrigation, transportation, industrial development, municipal water and regional development. It, too, is interested in providing some assistance to activities geared more directly to social equity type benefits but some Bank officials frankly admit the difficulty of achieving this. The United Nations, Germany, Australia, the United Kingdom, France and other donors are expected to provide another \$25 million annually over the short term at least in technical and other economic assistance for activities in virtually every sector of the economy.

The principal focus of the U.S. and the Consultative Group's thinking about Philippine development has been the period 1975-1980. There has been general understanding among the Group's members about the dimensions of the Philippine external assistance requirement and the patterns the assistance should take over this period. Examination of Philippine requirements beyond 1980 has, however, not yet been done in any systematic way by either the Philippine Government or the Consultative Group. Much of the analysis of Philippine needs for this period will depend upon the outcome of the current effort to spur Philippine development. If this effort is successful, Philippine per capita income levels will have risen about 25 percent, population growth will have slowed markedly, significant steps to

reduce rural-urban and regional income inequalities will have been carried out, a number of key development programs will have acquired momentum of their own, the country will be comfortably self-sufficient in rice and the Philippine Government will have sharply increased its resource mobilization capability. Progress of this magnitude could be expected to permit hardening terms and declining levels of assistance to the Philippines and would undoubtedly call for changes in the content of assistance.

The need for external assistance to the Philippines will, nevertheless, continue into the 1980's. The World Bank, the Asian Development Bank and the United Nations agencies will almost certainly continue to provide leadership and economic assistance in support of Philippine development in these years. The role of the countries belonging to the Consultative Group in these years will depend directly on the continuation in these countries of policies favorable to assistance and specific determinations about the nature and level of assistance appropriate to the Philippines. There appear good chances that the interest of Japan in Philippine development during this period will be sufficient to cause it to continue its support in some form.

The U.S. interest in the success of Philippine development efforts can also be expected to extend into the 1980's. However, the level of U.S. support or its likely priorities cannot be anticipated at this time. In 1977 or 1978 the Consultative Group will undoubtedly examine comprehensively Philippine development prospects and requirements for the early 1980's. Such an examination would provide a necessary foundation for a review of U.S. assistance policies toward the Philippines either in the context of another DAP or elsewhere.

THE U.S. ROLE

Congressional directives define U.S. areas of developmental interest to include agriculture and rural development, population, nutrition and education, all focussed on bringing an increasing level of development benefits to the materially poorest segments of society, particularly, the rural poor majority. It is this focus - or more broadly the need to pursue development in ways that will not only gain high levels of aggregate growth but, and perhaps more importantly, will also assure a more equitable distribution of the economy's output - that provides the chief motivation and identifying characteristics of U.S. economic assistance programs planned for the next few years. While these programs are expected to be modest in terms of over-all external resources, they are intended to have a measurable and significant impact in terms of the Congressional mandate.

It was from this perspective that the idea of a relatively early phase-out of U.S. economic assistance was considered. The essential line of the appraisal respecting possible early phase-out was developed, for the most part, before the Fall 1973 accentuation of the energy crisis and the mid-1974 softening of prices for some of the Philippines major export crops, and did not take into consideration the actual level of Philippine achievements in those sectors

critical to self-sustaining development which the U.S. has sought to support. The analysis was built on a few (now largely dated) factors: Philippine foreign exchange reserves had been built up to historically high absolute levels; a positive balance of payments position had been achieved during the past 2-3 years; per capita income was increasing and in 1973 approximated \$250 per year; numerous institutions and trained manpower were in place; and Taiwan and Korea offered good potential examples of and experience on which to base a phase-out of AID efforts in the Philippines.

While even the macro-economic situation suggested by the above factors has deteriorated considerably, particularly during the past few months (see the Economic and Social Overview section), the need to defer consideration of a phase-out of AID assistance is based primarily on the conclusion that much still remains to be done to improve the conditions of life of the poorest elements of the Philippines.

[REDACTED]

directly to substantial numbers of the population while simultaneously creating an indigenous capability to adapt, continue and expand the substance of the activities. These projects are particularly well suited to the Philippines because of the availability here of a relatively good institutional base and a broadly based, trained and trainable human resource pool.

These same factors, combined with the wide use of English and the pervasive cross cultural exchange between Philippine and U.S. educational and scientific institutions and staff augur well for expanded and lasting relationships. Such institutions seem particularly well-suited for increased flows of technology and technological training at both government and private levels. Other innovative approaches to technology transfer also need to be developed.

The U.S. programs will continue to be planned and implemented in the closest collaboration with the Philippine Government. They will function in support only of those programs to which the Government assigns highest priority and commits required resources. Our role remains distinctly secondary to that of the Government yet critical in terms of the skills and "risk capital" invested in programs both new to the Government and essential to development. The capital inputs of U.S. economic assistance programs planned during the next few years are quite small in terms of Philippine total capital needs. Yet they are critical in terms of testing and gaining establishment of innovative programs needed to deliver real benefits to major portions of the population.

Similarly, the number of American personnel (say 150-200 and divided equally between U.S. government and contractors) needed to assist in formulating and mounting these programs and getting them established as major Government or government-supported ventures, is insignificant in terms of Philippine skill and talent availabilities. Yet, these people are genuinely essential not only to oversee and manage U.S. Government inputs but as instruments for communicating the fundamental concepts underlying the results - oriented programs we will be assisting.

*Personnel
projections*

In the Philippines then, it happens, not by chance, that the most critical areas of Philippine development requiring external assistance, technical and financial, are the same areas which are the focus of current U.S. legislative authority for A.I.D.-population and health, food and nutrition and rural development. Consequently, these are the areas which command current attention by the United States in its address to the needs for assistance to the Philippines and the modes by which assistance can be made to have optimum impact.

This assistance is being provided to a society which is characterized by a relatively advanced position in regard to the status of women in it. In observing the role of women in the Philippines numerous examples of women successful and prominent in the professions, in business, in government services, in politics and in civic, social, educational and religious

positions can be cited. The status of such achievers in the family, community and in the nation is high and compares favorably with the status of women in most other countries.

In the design, development and execution of its programs USAID has identified and established close working relationships with such leaders whose involvement in the development programs of the country is extensive. In the fields of family planning and nutrition, the female Secretary of Social Welfare plays a major role as head of the Population Commission and member of the Board of Directors of the National Nutrition Council. Both of these nationwide programs utilize the leadership and support of the medical profession, one third of which is comprised of women and public school teachers, the latter numbering some three hundred thousand.

In the twenty odd provinces where the Provincial Development program is being implemented, two of the six provincial lady governors in the Philippines are involved together with hundreds of other women at the municipal mayor and municipal official level. Although this enumeration is only partial it is illustrative of the Philippine Government and USAID's effort and success in enlisting the support and resources of women who can directly influence the development process.

It would be inaccurate, however, to conclude that the "typical" Filipino woman is a professional, highly educated and enjoying social and economic advantages; such advantaged women belong to the still very small middle and upper class. The majority of Filipinos, men and women, are poor and have little access to the educational, political, economic and social advantages available to their more fortunate sisters. Since poverty is no respecter of sex, their suffering is comparable to men sharing the same economic conditions. Attention to this group - the poor majority - is the essence of the USAID program.

Finally the joint GOP/USAID program is planned and implemented with increasing concern for preservation and improvement of the Philippine environment. The effects of all new projects on the natural environment are examined carefully during project preparation and must be determined to be benign if the project is to be proposed for AID funding.

The Philippines itself accords higher priority to those environmental problems generally seen as consequences of underdevelopment, i.e., those centered on inadequate food, water and shelter, than to those seen as consequences of development activities such as air and water pollution which frequently result from infrastructure and industry project implementation.

As explained above, the GOP's major attention at the policy and operational levels is focussed on alleviating and correcting the first set of environmental problems. The USAID program may be viewed as totally directed toward that end.

Toward the second set of problems, the GOP has only recently begun to develop the policies, concepts and instruments needed. Major efforts to stop the denuding of forest areas and to rehabilitate selected waterways such as Manila's Pasig River and Laguna Lake are well underway. A National Water and Air Pollution Control Commission has been established to coordinate a number of programs and organizations aimed at controlling and preventing pollution.

The remainder of this paper will describe in some detail the economic and social context within which the U.S. assistance program is operated and the manner in which U.S. assistance plans are designed to fit into the Philippines' development strategy and programs. The paper will also summarize the three sectors in which USAID efforts are concentrated, the GOP position in each of these sectors and what we believe to be the requirements for success of each project for which AID financing is proposed.

THE U.S. PROGRAM SUMMARIZED

A brief description of the main U.S. economic assistance programs planned for implementation during the next few years follows.

I Population/Family Planning

The U.S. has played an essential role in the establishment of large scale family planning programs in the Philippines. U.S. leadership and resources of approximately \$30 million (about \$5 million per year since 1970) have helped to create the present strongly positive public environment for family planning. The opportunities for expanding family planning service coverage and increasing and expanding popular acceptance of family planning concepts, needs and practices in the Philippines over the next 5-10 years are more favorable than could have been anticipated as recently as four or five years ago. Given the powerful effect of population size and characteristics on Philippine development objectives, we propose to continue to devote substantial resources (approximately \$5 million per year) and efforts working with the Philippine public and private sectors to achieve major gains in reducing population growth. Particular emphasis will be placed on strengthening a full coverage delivery system and the adoption of lower size family norms.

II Nutrition

Nutrition

The U.S. has long been a major source of support for Philippine nutrition programs, particularly those aimed at improving the diet of pre-school and school age children. Continuing U.S. technical assistance aimed at interventions which will improve use of local resources for direct human consumption, and continuing but lower level U.S. food contributions will provide vital support to improved nutrition. In addition to the supplementary feeding program work will continue in other interventions such as education, local food production and research.

Aquaculture

After rice, fish is the most important source of total protein in the diet of low income Filipinos and is the single most important source of animal protein. Current fish production is neither efficient nor sufficient to meet current needs and will have to be greatly increased to enable the poorer half of the Philippine population to improve its nutrition and overall health standards. The Philippines with its wealth of natural resources has high potential for significantly increasing fish production and at the same time providing substantial employment opportunities. USAID will, in concert with the GOP, continue a program of aquaculture research and extension for both fresh and brackish water fish culture to realize that potential. In addition the GOP may request grant and/or loan assistance of between \$5 and \$10 million to strengthen its institutional base. This would be accomplished primarily by improving and expanding facilities to enable the Department of Inland Fisheries of the University of the Philippines College of Fisheries to move from its present location near Manila to the site of the USAID-assisted brackish water research station on Panay Island.

III Rural Development

This sector is a principal target of U.S. economic and technical assistance to the Philippines. The Philippine Government and members of the Philippine Consultative Group are allocating substantial resources directly and indirectly to this sector, including its agricultural component. The U.S. role in this sector is focussed on the small farmer and other elements of the rural poor. U.S. contributions are planned for a variety of fields such as small scale irrigation systems, applied research, improved delivery systems, fishery technology and administration of agrarian reform programs. Other U.S. programs supporting rural development are feeder roads, rural electrification and establishment of potable water systems.

Local Government Development

The central place of provincial and lower level governments in rural development is a critical factor in the Philippines. Improvement of government performance at these levels is essential if the development process is to have beneficial impact on the life of the rural poor. The Philippine Government's Provincial Development Assistance Project (PDAP) has been the focal point of GOP/USAID efforts in this area and is aimed at strengthening the capability of provincial governments to plan and implement rural infrastructure, equitable taxation, and improved management programs. As part of this effort which is directed toward improving the economic position of the rural poor, a program for the systematic development of secondary roads is being initiated. During the next decade improvements to existing provincial roads and the construction of new penetration roads may require \$400 million. AID assistance is being provided to this program and includes a loan of \$15 million for construction of over 250 all-weather roads and bridges. Future AID loans for rural roads are anticipated. Another PDAP managed program centers on development of effective small irrigation systems

in an institutional structure which will facilitate improved management, operation and expansion of such systems. Proper water management could nearly double rice production and significantly increase production of other food crops. It is expected that future programs of small irrigation systems will cover approximately 100,000 hectares and serve 40-50,000 small farmer families; such programs would cost in the order of \$50 million, of which \$25 million would be required from AID and other donors.

Rural Electrification

The key role played by electrification in rural development is well recognized. The U.S. is especially well equipped to assist the Philippines to create institutional structures which will enable the expansion of electrification services to all the Philippines within this century. Although the task is enormous, a promising beginning has been made. Pilot projects have demonstrated the feasibility of rural electrification by cooperatives: a program to establish 72 cooperatives serving over five million rural consumers by 1982 is well underway and will require \$20 million of AID financing each in FY76 and FY77. Such further U.S. support is essential to continued satisfactory growth in the Philippines' rural electrification program. Total electrification of rural areas by 1994 will require an average \$100 million of foreign exchange and \$100 million of peso equivalent each year; and obviously the participation of other donors and increased Philippine participation.

*Benefit
in terms of
food, health
& income*

Agrarian Reform

Inequitable distribution of rural landholdings and an absence of effective supporting services have been long standing obstacles to improving income and productivity for some one million rice and corn tenant farm families. The GOP has embarked on a major agrarian reform program with the dual purpose of transferring land to tenant-tillers and increasing their productivity through a range of supporting services provided by cooperative mechanisms, including supply and marketing networks. Compensation payments to landlords over the next three years are estimated at \$100 million which the GOP will have to obtain from its own or foreign resources. The USAID is assisting the GOP agrarian reform program through technical assistance for various aspects of the land transfer operations, for testing cooperative structures in the pilot provinces of Nueva Ecija and Camarines Sur, and for agrarian reform research. It is estimated that AID will provide approximately \$4 million in technical assistance for various aspects of the land transfer program over the next few years. In addition, approximately \$2 million will be needed to strengthen the Agrarian Reform Institute. AID will also consider the possibility of a \$20 million loan for the cooperative marketing program.

Small Farmer Income and Production

This project is designed to institutionalize and regularize the management of the nation's rice and corn production programs to reach the majority of the country's small scale farmers. The project has three key elements

each designed to provide benefits to the rural small farmers: Management Information System; research; applied-on-farm and multi-disciplinary test-bed; and assessment and strengthening of small farmer production and support sub-systems. By 1978 the GOP's programs for the small farmer are expected to reach 1,403,000 rice farm families and 407,000 corn farm families with an increase in income of 57 and 92 percent respectively. AID intends to continue to provide about \$500,000 per year for the next 4-5 years to assist the GOP to institutionalize its response to the needs of the small farmer. The GOP is considering the possibility of an AID loan for the establishment of an agro-business development corporation which would assist in increasing the availability of investment capital.

Bicol River Basin Development

Integrated area development is an innovative development technique to accelerate rural development now being tested in the Philippines in several rural areas. The technique requires planning and management of development activities in a delimited geographical area with integration and coordination taking place both in a governmental sense and in a substantive sector sense. A.I.D. is assisting the Philippine Government in carrying out the Bicol River Basin Development program which was selected by the GOP and USAID for assistance because of its high development potential and its problems of high tenancy, periodic flooding and deficient infrastructure. Development of the Bicol River Basin will require several hundreds of millions of dollars over the coming decades for construction of physical infrastructure such as irrigation, flood control works and rural roads, as well as for social infrastructure. USAID plans to continue providing assistance to the Bicol program to improve its planning and coordination capabilities and its data base, including feasibility studies which might be used by the GOP to solicit loans from external donors. If the Bicol program is successful in delivering real benefits to the basin's poor, the possibility exists that the program may be replicated in other discrete rural areas of the Philippines.

Potable Water Systems

The GOP initiated a major program to provide potable water to provinces in 1974 with the issuance of a Provincial Water Utility Act which created the Local Water Utilities Administration (LWUA). This long-range program was undertaken as part of the Government's efforts to improve the health and living conditions as well as the economic productivity of the rural population. The Philippines has approximately 300 communities of 30,000 population or more in need of reliable water systems. These communities represent about 40% of the total Philippine population outside Manila. At today's prices, an estimated \$15 million per year or a total of \$450 million, would be required to provide potable water to these communities. In 1974 AID provided a grant of \$750,000 and a loan of \$15 million to finance technical assistance and the design and construction of five pilot projects. Feasibility studies are now underway on 10 additional systems which would cost an estimated \$50 million of which \$22.5 million would be foreign exchange. A development loan of \$20 million in FY 1976 and additional grant financing may be required.

Population
5,000,000
B/c ?
Who
benefits?

Agricultural Research

The Philippine Council for Agricultural Research (PCAR) was established in 1972 to give direction to and coordinate research activities of government agencies and agricultural colleges and universities. A seven year plan for the development of capabilities to implement major research programs has been developed. The plan envisages capital investments of \$33 million for improvements to infrastructure, laboratory equipment, library materials and farm materials. Recurring expenses for personnel and operations is \$107 million over the seven year period. In FY75 AID will provide a \$5 million loan to assist in financing the development of a research capability at four research centers located throughout the country. Initially the GOP will focus on food and feed crops. For the future it is anticipated that additional AID loan and/or grant funds will be required, in coordination with other donors, to assist in research on vegetable production, poultry and swine production and pasture and forages for livestock breed animals.

Dayanihan School Building

In 1970, 1972 and 1974 as a result of typhoons and floods thousands of school classrooms were damaged or completely destroyed and approximately 300,000 school children were without classroom facilities. In response to the GOP's request, AID provided funds to assist with the construction of 1,500 typhoon resistant schools. At present, the Philippines has a need for more than 48,000 classrooms. To overcome the classroom deficiency the GOP has proposed an initial outlay of ₱45.6 million to cover the costs of erecting 3,300 Marcos-type prefabricated buildings. The GOP has requested an FY 1975 AID Loan of \$6.5 million to construct 1,000 schools (3,000 classrooms) in areas where typhoon damage is normally extensive. The 1,000 schools will provide classrooms for approximately 120,000 children of the nation's rural poor. It is of interest that the fixed cost reimbursable technique, which provides that AID funds are used to reimburse the GOP for mutually agreed purposes subject to final approval and inspection, was developed under this program. This is a technique which has been applied elsewhere in the AID program in the Philippines.

TABLE 1**Estimated Beneficiaries of USAID Assisted Projects****A. Rural Development Sector**

<u>Project</u>	<u>Target</u>	<u>Date</u>	<u>Number</u>
Local Development (Including Irrigation & Rural Roads)	Individuals	By FY 1978	10,000,000
Rural Electrification	Individuals	At Present By 1982	1,000,000 + 5,000,000
Small Farmer Income and Production	Small Farmer Families	By FY 1978	1,000,000 +
Agrarian Reform	Tenant Families	By FY 1977	500,000
Potable Water Systems	Individuals	By FY 1977	1,000,000
Bayanihan Schools	Rural School Children Other Users	By FY 1977 By FY 1977	500,000 2,000,000
Bicol	Individuals	By FY 1985	500,000
Agriculture Research	Small Farmers plus Families	By FY 1980	4,340,000

B. Population/Family Planning Sector

Population Planning	Acceptors	At present By end of FY 1976	2,633,738 4,092,574
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C. Nutrition Sector**Nutrition**

Mother Education and Green Revolution	Families	By FY 1978	5,650,000
Food Assistance for Malnourished Children	Children	By FY 1978	2,300,000
Aquaculture Production	Individuals	All Philippine consumers in varying degrees either directly or indirectly	

Selected Economic Indicators

Indicator	1960	1965	1970	1971	1972	1973 ^{1/}
National Income:						
Gross national product (million pesos)						
At current prices	12,964	22,029	41,167	50,089	56,869	71,314
At constant 1967 prices	18,994	24,647	32,188	34,190	35,613	39,102
Annual real GNP increase		5.2	5.5	6.2	4.2	9.8
GNP per capita (US \$ at 1970 constant pesos) ^{1/}	155	175	199	207	210	224
Gross capital formation (million pesos at 1967 prices)	3,288	5,184	6,390	6,667	6,758	7,351
Share of GNP (%)	17.3	21.0	19.9	19.5	18.8	18.7 ^{3/}
Domestic Product (% of NDP at 1967 constant prices)						
Agriculture, Forestry and Fishery	34.8	34.0	33.5	32.2	30.8	30.5
Manufacturing and Mining	18.9	18.6	21.3	22.1	22.5	23.1
Construction, Utilities and Transportation	6.3	7.5	6.0	6.1	6.9	7.2
Services	18.8	19.2	18.2	18.1	18.4	17.8
Employment						
Labor force (millions)	9.1	10.8	n.a.	13.2	14.2	13.9
Persons Employed (millions)	8.5	10.1	n.a.	12.6	13.2	13.3
Unemployment rate (%)	6.3	6.2 ^{4/}	n.a.	4.8	6.9	4.5
Urban	n.a.	10.7	n.a.	9.0	12.4	8.0
Rural	n.a.	4.1	n.a.	3.0	4.6	2.9
Public Finance (million pesos)						
Current Revenue (FY)		1,865	3,110	4,298	5,110	7,148 ^{5/}
Current Expenditure (FY)		1,843	3,328	3,758	4,837	5,815
Capital Expenditure (FY) ^{2/}		356	975	775	1,587	2,113
Net Borrowing		447	1,132	290	918	1,423
Tax Revenue as % of GNP		9.4	9.4	10.7	10.1	11.9
Money and Credit (million pesos)						
Money Supply	1,896	3,067	5,047	5,567	6,797	8,152
Quasi Money	1,031	2,448	5,480	6,321	6,446	8,685
Domestic Credit (outstanding at end of period)						
To public sector		980	3,479	3,907	4,778	6,541 ^{6/}
To private sector		8,223	13,396	18,010	22,892	25,377 ^{6/}

Indicator	1960	1965	1970	1971	1972	1973
Prices and Wages (1965-100)						
Philippine Consumer Price Index	76.5	100.0	131.5	160.2	173.4	194.5
Manila	79.4	100.0	133.7	153.2	168.9	187.5
Regions outside Manila	75.7	100.0	130.9	162.0	174.5	196.4
Manila Wholesale Price Index	77.3	100.0	137.7	159.3	175.4	218.4
Exchange Rate (pesos per US\$ at end of period)	2.01	3.91	6.43	6.43	6.78	6.78
Nominal Wages (Manila)						
Skilled Labor	91.9	100.0	132.8	139.7	146.6	154.5
Unskilled Labor	83.2	100.0	145.2	155.0	164.4	168.7
Real Wages (Manila)						
Skilled Labor	115.7	100.0	99.3	91.3	86.8	82.8
Unskilled Labor	104.8	100.0	108.5	101.3	97.4	90.4
External Trade (million US\$)						
Merchandise Exports	560	768	1,062	1,136	1,106	1,768
Coconut products	179	270	209	254	228	372
Sugar and products	143	147	196	220	218	295
Forest products	102	195	295	264	235	444
Mineral products	61	77	224	216	212	319
Fruits and other agricultural products	62	57	66	71	86	108
Other Manufactures	13	22	72	111	127	230
Merchandise Imports	604	808	1,090	1,186	1,230	1,597
Consumer Goods	100	185	131	175	210	284
Raw materials and intermediate goods	281	339	546	554	586	822
Capital Goods	223	283	414	456	434	491
Major Trading Partners						
Exports (% of total)						
US	50.7	45.4	41.4	40.4	42.4	35.8
Japan	21.9	28.4	39.6	35.1	33.8	35.8
Imports (% of total)						
US	42.3	33.9	28.9	24.6	25.4	28.1
Japan	26.5	24.3	31.7	30.3	31.8	32.5
External terms of trade (1965-100)	114.5	100.0	110.6	94.1	78.1	99.9
Foreign Exchange Reserves (million US\$)						
Gross (end of period)	196	280	376	264	735	1,416
Net (end of period)	19	18	-6	-20	80	753

ECONOMIC AND SOCIAL OVERVIEW

Indicator	1960	1965	1970	1971	1972	1973
External Debt (million US \$) 7/						
Total medium and Long-term debt outstanding including undisbursed	-	-	2,033	2,230	2,504	2,563
Disbursed	-	461	1,679	1,619	1,756	1,866
Public	-	272	630	639	773	825
Private	-	190	1,049	980	983	1,041
Debt Service Payments	-	105	328	371	328	440
Debt Service Ratio (%)	-	9.6	24.6	26.5	22.4	18.4

P/ Preliminary

1/ GNP per capita at 1969-71 average constant pesos converted at 1969-71 average exchange rate of P5.60 = \$1.00.

2/ Includes foreign-financed expenditures

3/ The share in GNP of gross capital formation for the first half of 1974 was 20.3 percent.

4/ The annual unemployment rate increased to 7-8 percent during 1966-1969.

5/ Estimated revenue for FY 1974 is P11,069 million.

6/ Estimates of the 1974 IBRD Economic Mission.

7/ Excludes IMF Standby credits.

ECONOMIC AND SOCIAL OVERVIEW

Past Trends

Overall economic growth during the 1960s and the first half of the 1970s averaged about 6 percent per year in real terms and except in recent years, was accompanied by relative price stability. Despite an annual population increase of slightly over 3 percent per year, GNP per capita managed to rise from \$155 in 1960 to a current level of over \$250.

The major contributors to the overall economic advance were the export agriculture, industrial, and services sectors. Domestic agriculture, mainly rice and corn production, stagnated during the greater part of this period except for the rapid expansion during the latter half of the 1960s which was associated with the widespread adoption of the HYV-fertilizer technology. During the early part of the 1970s, rice production actually declined due largely to adverse weather, but recovered sharply in 1973-74 under the stimulus of expanded government food production programs.

Past economic growth was not matched by corresponding improvements in employment and income distribution. The overall distribution of income, which was already highly unequal, worsened slightly and the worsening was particularly pronounced in the rural areas. The open unemployment rate increased to about 7-8 percent during the 1960s while the level of underemployment also increased steadily. In recent years, employment opportunities have expanded appreciably but there is still widespread unemployment and underemployment. In large part, the inability to improve employment and income distribution was due to the failure to mobilize effectively the predominant rural/agricultural sector, as well as the continued pursuit of an import substitution strategy which fostered large scale and capital intensive industries in urban areas, particularly Greater Manila.

Growth of the Philippine population accelerated during the post-war period to over 3 percent annually and was reflected in the expansion of the labor force by 2.7 percent per year. The slow development of the rural/agricultural sector and the emphasis on capital intensive technologies in industry, greatly limited the labor absorptive capabilities of both sectors. Large scale rural-urban migration occurred especially to the Greater Manila area, and labor was increasingly absorbed, not in industry, but in the service sector and at very low levels of earnings. This migration has exercised a continuous downward pressure on urban real wages and seriously aggravated the urban unemployment and underemployment problem.

The economy's effort to mobilize resources for growth expanded during the last fifteen years and was reflected in the rise of the investment rate from about 17 percent in 1960 to a current level of about

20 percent. However, there were inefficiencies and imbalances in capital formation. While no reliable information on the sectoral allocation of investments exists, it appears that infrastructural and agricultural investments were relatively neglected during the greater part of the period under review. During the 1960s, public investment comprised only 10 percent of total investment and its ratio to GNP rarely rose above 2-3 percent; moreover, capital expenditures accounted for less than 15 percent of total budgetary expenditures. The low level of infrastructure investments can be attributed to a low tax effort and to the serious gaps in the public sector's capabilities to plan and manage development programs and projects. Tax revenues grew slowly and the ratio of tax revenues to GNP was stable at about 10 percent. Planning activities were dispersed among several government agencies, and were not effectively linked with program implementation and the actual allocation of government resources. Additionally, there were serious deficiencies in the project preparation and implementation capabilities of most government departments.

During the first half of the 1970s, impressive improvements were realized both in the tax effort and in the government's capital development program. Tax revenues have expanded unprecedentedly as a result of tax reforms instituted in recent years. Consequently, the ratio of tax revenues to GNP has increased to a current level of 12 percent. The share of capital expenditures in total budgetary expenditures has risen to over 40 percent in FY 1974, and the government now accounts for about 12 percent of total investment.

During the 1960s foreign capital inflows - private commercial and official development assistance - were small but have expanded greatly during the 1970s. In recent years, private direct investment has responded vigorously to the increased political and social stability in the Philippines, as well as to various investment incentives. The formation of a Consultative Group for the Philippines in 1971 has increased the inflow of official development assistance, and has resulted in increased coordination among donor countries and agencies. Official loan commitments from 1965-1969 averaged only \$33 million annually, but with increased absorptive capacity and an internationally endorsed development climate and program have averaged \$268 million annually during 1971-1974.

Chronic balance-of-payments difficulties were experienced in the 1960s due to the slow growth of exports and the continued heavy dependence of domestic industry on imports. A significant external debt service

problem emerged at the end of the 1960s, and coupled with the large expansion in liquidity and spending associated with the 1969 Presidential election campaign, led to a major devaluation of the peso in early 1970. Since then, the balance-of-payments position has been improved and the external debt burden reduced to manageable levels through careful debt management and high export growth. The economy has benefitted greatly from unprecedentedly high export prices of primary commodities over the last two years. Since mid-1974, however, export prices have started to soften while the prices of oil and other imports have continued to rise. As a result of the abrupt deterioration in the external terms of trade since mid-1974, the trade surplus of \$274 million in 1973 is expected to be dramatically converted into an estimated deficit of \$680 million in 1974.

Trade patterns changed slowly during the period under review although in recent years, trends toward export commodity and market diversification have become more pronounced. Exports of manufactures have expanded rapidly over the last two years in response to government incentives and favorable world prices. Philippine international economic relationships are now being revised to reflect the expiration of the Laurel-Langley Agreement with the US, the continued growth in economic ties with Japan, the opening of trade relations with Eastern European socialist countries and the People's Republic of China, and the rising importance of the Muslim oil producing countries.

Policy and Institutional Reforms

Since 1970, the Philippine Government has initiated numerous basic economic and social reforms to provide the policy and institutional environment for the attainment of economic and social goals. Between 1970 and the declaration of martial law in September, 1972, a number of significant reforms were undertaken. In early 1970, a foreign exchange reform involving a major devaluation of the peso and the adoption of a floating rate scheme was implemented. A stabilization program was also started as part of a stand-by arrangement with the International Monetary Fund. As preconditions for the formation of a Consultative Group in 1971, the Philippine Government complied with the terms of the stabilization program with the IMF, formulated a realistic four-year development plan, and took steps to increase its tax revenues. "Technocrats" were recruited into high-level posts in the government and the quality of development management was improved greatly as a consequence. Major studies and plans were also developed, particularly for the reorganization of government, and the restructuring of the tax and tariff, financial, and educational systems. These studies and plans laid the groundwork for the rapid implementation of many reforms initiated under martial law. The major reforms under martial law include the acceleration of the agrarian reform program; the reorganization of government; tax and tariff reforms to improve taxation standards for redistributive ends and to improve the investment climate; banking and financial reforms to help mobilize resources for development

and to establish a more stable and better regulated financial structure; liberalization of regulations on foreign investments; reorientation of industrial policies towards export expansion, industrial dispersal, and labor intensification of production techniques; realignment of labor laws and policies to make them more employment-oriented; and the intensification of the population/family planning program.

A major focus of recent reforms has been the strengthening of the government's development planning and management capabilities. Under the ongoing government reorganization, the past disjointedness of planning activities has been remedied by merging the various existing agencies and ad hoc bodies involved in planning into a single planning agency, the National Economic and Development Authority (NEDA). The NEDA effectively links policy-making and planning to program and project implementation since its Board is presided over by the President and is composed of cabinet level officials involved in formulating and executing sectoral development activities. Program planning and budget planning and allocation have also been effectively linked with the creation of a Presidential Budget Coordination Committee (PBCC) in 1970. The PBCC has been retained as a permanent agency and has been attached to NEDA. The Committee continues to determine the level and functional allocation of government expenditures. Also attached to NEDA is the Investment Coordination Committee which coordinates the investment policies of government financial institutions towards development priorities.

The ongoing reorganization also stresses the strengthening of the planning capacities at the department level. This should result in a pipeline of development projects reflecting sectoral objectives and should contribute to a more balanced and coordinated public investment mix. It is intended that the NEDA will operate in a review or control capability by setting technical standards, coordinating and integrating agency plans with overall economic and social priorities and reviewing financing implications in the light of competing needs.

Another important aim of the government reorganization is to decentralize the planning and implementation functions of the national government. Regional offices of national government line agencies are being established in each of the eleven administrative regions of the country. The planning and implementation activities of these regional offices will be coordinated by Regional Development Councils (RDCs) which are being established by the NEDA. Eight (8) RDCs have been set up and are now operational. The RDCs will also be responsible for the vertical coordination of plans and programs between the national government (through the regional offices of national agencies) and provincial governments. The planning and program execution capabilities of provincial governments are also being developed and upgraded. Most provinces now have a Provincial Development Staff which is responsible for the preparation of a comprehensive provincial development plan that realistically reflects national priorities and inputs.

- Needs

Current Situation

Although steady economic gains were achieved in the past, the Philippines is still largely underdeveloped. Selected social and economic indicators cannot portray Philippine underdevelopment in its totality, but the paragraphs below outline some of the more important social and economic features which currently characterize the Philippines.

Population - The population of the Philippines is large, young and growing. With nearly 43 million people in 1975, the Philippines is the eighth most populous nation in the developing world. About 43 percent of all Filipinos are under the age of 15. As this youthful population matures the number of women of child bearing age will steadily increase. At current fertility levels, (the average number of children per married woman during her lifetime is more than five), the population would increase to almost 50 million by 1980 and to more than 57 million by 1985. Given the present age structure of the Philippines, the dependency ratio (ratio of population below 15 years and above 65 years of age to the population from 15-64 years of age), is about 87 percent.

Health and Nutrition - Many Filipinos are unhealthy and ill fed. Life expectancy in the Philippines is 59 years. The infant mortality rate (number of deaths under 1 year) is about 65 per 1,000 live births. The number of deaths among children under the age of five is about 20 percent of all deaths, a level as high as that reported from other countries with severe malnutrition problems in the child population like India and Pakistan. The death rate among these children is estimated to be 12-14 times higher than in the United States and 4-5 times higher than in Taiwan. Poor sanitary, housing and nutrition conditions are the major causes of early childhood deaths. Average daily caloric intake in the Philippines is estimated to be 1,700 which is about 15 percent below estimated daily requirements. Daily protein intake is estimated at 46.4 grams per capita as compared with a minimum estimated requirement of 50.0 grams per capita.

Education - The Philippines has traditionally supported a large education establishment. The estimated rate of literacy in the Philippines is about 83 percent, and is among the highest in Asia. Almost all children of the relevant age group attend primary school, and the enrollment rates of about 50 percent at the secondary level and 24 percent in higher education are among the highest in the world. However, the quality of Philippine education has been vastly uneven, with rural areas receiving grossly inadequate educational services. Moreover, the rapidly growing school age population and the widening need for better quality education will place unprecedented demands upon Philippine educational resources over the next ten years and beyond.

Income - A great majority of Filipinos are poor. More than two-thirds of Philippine families earned less than \$25 per month in 1971, the last year for which income distribution data is available. The incidence of poverty

strikes most heavily in the rural areas where about one-half of all families earned less than \$15 per month in 1971. As a result of steady economic growth over the past two decades, the annual average per capita GNP in the Philippines has risen above \$250. This is, however, less than half of Taiwan's and about two-thirds of South Korea's current GNP per capita levels.

Income Distribution - There are severe inequities in income distribution among families in the Philippines. More than half of total family income accrues to the top 20 percent of total families, while less than one-fifth is accounted for by the bottom 50 percent. Great disparities in regional development and incomes also exist. Manila and surrounding provinces have been the main focus of development. These areas now account for a disproportionately high share of total production, and for most of manufacturing output. The development of other regions, most notably Northern Luzon, the Bicol provinces in Southern Luzon, and Eastern Visayas, has been relatively neglected.

Labor Force - Over 14 million Filipinos now belong to the labor force. About two-thirds of these live in rural areas, and about half of the labor force is engaged in agriculture, forestry and fishing. The unemployment rate in urban areas is currently estimated to be about 8-9 percent. Rural unemployment is estimated to be about 3-4 percent, but subsistence agriculture accounts for much of rural employment. Overall, about 4-5 percent of the labor force is believed to be currently unemployed while 12-14 percent of the employed labor force is underemployed. The labor force is currently growing at an annual rate of 400,000, and this figure will rise to nearly 600,000 by 1985.

Agriculture - Philippine agriculture is still characterized by a heavy incidence of tenancy on Philippine rice and corn lands, the lack of effective institutions and infrastructure to serve small farmers, and low productivity. Rice yields on irrigated land average 1.9 MT (milled basis) per hectare as compared with 2.8 MT per hectare in Taiwan. Corn yields average only 0.8 MT per hectare as compared with 2.0 MT per hectare in Thailand. Philippine sugar yields are about 95 kilos per ton of cane, half those obtained by Cuba. In spite of some important improvements, Philippine farmers still lack adequate credit, fertilizer, irrigation facilities, production and marketing technology, and storage and marketing systems. While the Philippines is a net exporter of food, it is not self-sufficient in basic staples such as rice and fish and this is reflected in undernourishment in the child population particularly. Though considerable progress is now being achieved in land reform and in the development of rural institutions and infrastructure much remains to be done.

Transportation - The Philippines lacks the economic infrastructure necessary to support the movement of goods and services needed to foster economic development. The country has about .002 kilometers of road for each inhabitant and about one-fourth kilometer of road for each square

kilometer of land area. More than three-quarters of all roads are surfaced with earth or gravel. Road density is greatest in the Manila area and sparsest in Mindanao and other remote provinces. Philippine ports are ill-equipped to handle present levels of domestic and international cargo, and Philippine airports and air navigation facilities are sub-standard. The current concentration of the majority of World Bank and ADB loans on highways, ports and airports with accompanying increases in GOP domestic revenues for the same purposes, is a much needed development but will require many years of such emphasis to meet the needs of a rapid development program.

Water Use and Control - The Philippines is now able to irrigate only about one-third of all rice lands. Direct diversion of stream waters and pumping are the most common methods of irrigation, and only two (recently completed) storage and regulation irrigation systems exist in the country. At least one-half of all Filipinos do not have access to adequate and potable drinking water. Most industrial firms must provide their own water supply. Inadequate water control systems permit extensive flood damage to both rural and urban areas from normal rainfall.

Power and Communications - Only about 30 percent of the total Philippine population is served by electricity. Majority of these people live in the Metro Manila area and other urban centers in the country. Most rural households do not have access to electric service and those who do receive inadequate and unreliable service. Per capita consumption of electricity in the Philippines is less than one-fifth that in Taiwan and less than two-thirds that of Malaysia. Per capita consumption of the one-quarter of the country's population living in the Visayas is about half of the national average. The Philippines has only 40,000 telephones, only one per 100 persons with most of these being in the greater Manila area. Even telegraph service is unavailable to more than two-thirds of the country's population.

Perspective of Development, 1975-1979

The Philippines enters the second half of the 1970s confronting serious economic and social problems. In the near term (1975 and possibly up to 1976), the economy has to contend with a continuing high inflation rate as well as a worsening of the balance of payments. Since mid-1973 consumer prices have been rising at an annual rate of more than 40 percent as a result of a substantial expansion in liquidity since the export boom began in 1973, and a number of cost-push factors, including the higher rate of world inflation, domestic food shortages, and the increased cost of petroleum. Monetary and fiscal policies have aimed at absorbing excessive liquidity and during the second half of 1974, the rate of inflation began to slacken. The authorities expect the rate of inflation to drop to about 20 percent by the end of 1974. Assuming no new major upheavals in key commodity markets, the rate of price inflation should moderate further in 1975. Even if this were to happen, it is likely that

inflation would still remain much above the secular trend and would continue to have unfavorable welfare implications especially for urban wage earners who have been most affected by the high rate of inflation since 1970.

In its November, 1974 report on the Philippine economy, the IBRD projected a worsening of the balance of payments situation for the Philippines over the next two years. A current account deficit of \$650 million and \$1,070 million is projected for 1975 and 1976, respectively, compared to an estimated deficit of \$450 million in 1974. Given its present debt service ratio of about 15 percent, the economy has wide latitude for financing projected current account deficits through external borrowing. However, substantial amounts of additional external debt must be on concessional terms if a reversal to an excessive debt burden is to be avoided (see also "External Assistance Requirements and Sources").

Over the medium-term horizon and quite possibly beyond, the economy confronts the problems of reducing unemployment and underemployment and improving the highly skewed income distribution. While employment opportunities have expanded appreciably over the last two years, unemployment and underemployment continue to be widespread. Aside from mopping up current unemployment and underemployment, the employment challenge for the economy during 1975-1979 is to absorb about 2 million new entrants to the labor force.

In the last two years, the Philippine economy expanded at rates above the secular growth trend. In 1975, GNP is estimated to have expanded by 9.8 percent. A 7 percent growth is estimated for 1974. The Philippine Government is committed to maintaining the growth momentum developed in the last two years and is pressing ahead with plans for a series of major agricultural, infrastructural, and industrial investments in order to lay the foundation for sustained growth in future years. Given the political will to maintain the growth momentum and the much-improved policy environment, and provided that resource requirements indicated in the succeeding section can be met, "medium level" growth at 7 percent per year as targeted is feasible. This is higher than the average historical experience but lower than the Philippines' long-run potential, given her favorable resource endowments and human resources.

Growth during 1975-1979 is expected to be broadly distributed among various sectors, particularly agriculture, industry, and infrastructure. It should be possible to expand agriculture by 4-5 percent in 1975 and probably maintain about the same rate in subsequent years. Greater dynamism can be expected from domestic-oriented agriculture as a result of land reform and other institutional changes, as well as the continued expansion in rural infrastructure, credit, and other supporting services. Rice self-sufficiency could be achieved by 1977, and maintained subsequently, provided that the extension of irrigation and HYV-fertilizer technology on

rain-fed areas, and the expansion of credit, price and marketing support, and other services are continued. Aside from rice, substantial gains can also be achieved in corn and fish production for which the technical base is either adequate or being improved.

The expansion of export agriculture and its contribution to the balance of payments depends heavily on overseas market conditions. The demand prospects for sugar over the medium term appear bright. The demand for coconut and wood products has been affected in the near term by the slowdown in major foreign markets, and a recovery in demand by 1975-76 will depend on how quickly major export markets recover from their present slowdown. The conservation measures on forest resources and the government's program for phasing out log exports and increasing domestic processing of wood products, are expected to shift the export pattern of wood products from logs to processed products.

Favorable industrial performance over the next five years will depend on sustained agricultural growth, an expansion of manufactured exports, and success in the selective development of intermediate and capital goods industries. Sustained agricultural growth in the future will ensure a high level of domestic demand for manufactures. Exports of manufactures are being given incentives and have consequently increased greatly over the last 2 years. Continued growth is expected as major markets recover from their present slowdown. Some progress in the development of selected intermediate and capital goods industries will be achieved due to government incentives and expansion in domestic markets.

As indicated in the succeeding section, government spending for infrastructure is programmed to expand rapidly over the next five years in order to meet development requirements. During the next year or so an increase in infrastructure spending is also being planned to take up the slack in demand induced by the high inflation rate as well as the slowdown in the economy's major export markets.

Limited gains can be achieved in reducing unemployment and under-employment over the next five years but it is highly unlikely that the unemployment rate can be reduced to 3 percent by 1977, as targeted in the Philippine Government's Four Year Development Plan for 1974-1977. Future patterns of labor absorption are not expected to vary much from those of the past. The services sector is likely to absorb much of the increase in labor force. In agriculture, employment will be generated through more intensive land use made possible through irrigation, and through an expansion in cultivated area. Additional employment opportunities will also be provided in industry through an expansion in production and use of labor-intensive techniques.

Improvements in income distribution can be expected over the next five years through land reform which immediately benefits tenants through reduced amortization payments, and also assures that agricultural improve-

ments such as irrigation, credit, etc. accrue to the benefit of small farmers. Improvements in income distribution are also expected through present fiscal policies and programs such as an expanded tax effort (achieved partly by increased direct tax collections) and an expanded provision of social services. Income distribution is also expected to be improved through increased employment.

Philippine Development Goals, Strategy, and Priorities

A comprehensive statement of Philippine economic and social goals, development strategy and priorities for the medium-term future, is contained in the Philippine Government's Four-Year Development Plan for FY 1974-77. The Plan has the following goals: maximum economic growth; maximum employment; more equitable distribution of income and wealth; regional development and industrialization; promotion of social development; and maintenance of price and balance-of-payments stability.

Table 2 summarizes the growth targets of the Plan. GNP is targeted to expand by 7 percent per annum from FY 1974-77. To achieve this target, gross investments must expand by almost 10 percent annually (see section on "Resource Requirements and Sources"). The Plan's sectoral growth targets are (in average annual growth rates) agriculture, 5.0 percent; mining, 18.0 percent; manufacturing, 10.0 percent; construction, 10.0 percent; transportation, 4.9 percent; commerce, 4.7 percent; and services, 4.5 percent. The employment target is an ambitious one of reducing unemployment to about 3 percent by FY 1977. No quantitative targets were adopted to express the Plan's equity and stability goals.

The Plan's basic strategy for achieving its economic and social goals involves the balanced and mutually complementary development of the various sectors of the economy. This strategy of balanced growth represents a sharp reversal of the strategy pursued during the past two decades which strongly emphasized import substitution in the industrial sector and neglected the development of the agricultural/rural sector. There are three major aspects to the strategy of balanced growth. First, greater emphasis is placed on increasing agricultural output and the production of "wage goods" needed by low-income groups. Second, greater stress is placed on agricultural and infrastructural investments as well as on the provision of social services. Third, greater attention is paid to the distribution of growth benefits.

Within the general framework of its development strategy, the government is concentrating on strengthening and/or expanding selected programs. The accelerated land reform and food production programs, supported by the development of cooperatives and rural infrastructure, are the major programs for achieving agricultural/rural development. The infrastructure program is also being realigned with highest priority being assigned to projects directly supportive of increased food production (e.g. irrigation

and secondary and feeder roads). In industry, the major thrust of the government's development efforts is towards the promotion of exports, labor-intensive methods of production, and geographically dispersed small and medium-scale industries. In response to the energy crisis the Philippine Government is attaching high priority to non-petroleum energy development projects, e.g., hydroelectric, geothermal, and nuclear power. The major programs for social development are the population/family planning and health/nutrition programs, and an education and manpower development program geared to the skill requirements of agriculture and industry.

The substance of the Philippine economic and social development program is contained in the priority sectoral programs mentioned in the paragraph above. The objectives for these programs and the necessary implementation measures have been concretely and specifically formulated by the Philippine Government, and those to which USAID efforts are addressed are discussed in the sectoral and project analyses contained in Part II of the DAP. The implementation schedule for these programs has been largely adhered to over the past two years. Despite this good performance many of the programs for structural change are still in the early stages of implementation. The further implementation of these programs over the next five years is regarded by the Philippines as essential to the country's further development and a prerequisite to eventual achievement of a self-sustaining development capability.

Some consensus has developed among the Philippines' major donors, including the USAID, that the country's strategy and priorities are appropriate within the context of the past pattern and the desired future course of Philippine development. The new strategy basically calls for a shift to a more balanced development pattern involving the mobilization of the rural sector and the development of industrial exports. In its November 1974 report on the Philippine economy, the IBRD also expressed support for the Philippine Government's growth strategy and priorities as well as for the Government's move to secure increased support from the international financial community to help carry out its development program.

Resource Requirements and Sources

Prospects of continued Philippine economic and social development in the future depend critically on the success of the economy in mobilizing resources for various development programs. Total investments are targeted to rise by almost 10 percent annually in real terms in order to meet the growth targets of the Four-Year Plan. At this growth rate, the investment rate (the ratio of gross investment to GNP) would rise slightly from 20.7 percent in FY 1974 to about 21.3 percent in FY 1977, the final year of the current Development Plan.

Private Sector

The bulk of investment requirements (about 82 percent) will continue to be in the private sector. Total private investments are expected to be financed mostly from domestic savings; about one-third is expected to come

from direct foreign investments, credit and loans. Given maintenance of the country's recently improved international credit standing and a continuing effort to strengthen the country's attractiveness to foreign investors, the country should be able to obtain growing amounts of external financing to meet private sector investment needs.

Public Sector

The implementation of the various government programs at planned levels will necessitate a rapid increase in total public expenditures. Budgetary expenditures (current and capital) for the current fiscal year are programmed at P17.7 billion, an increase of 223 and 27 percent over the FY 1973 and FY 1974 levels, respectively. About 53 percent of total FY 1975 expenditures have been earmarked for economic development; 19.0 percent for social development; and only 12.5 percent for national defense.

53
19
12.5
81

The Philippine Government plans to expand its capital expenditures rapidly and to account for an increasing proportion of the economy's total investment. The share of the government in total investment is planned to be increased from about 12 percent in FY 1972 to 18 percent by FY 1977. It is planned that the rapid rise in public capital expenditures be financed by increased tax revenues and an enlarged inflow of official assistance.

Table 3 summarizes the capital outlays program of the Philippine Government for FY 1975-FY 1978. The bulk of the program consists of planned infrastructure investment. The infrastructure categories that are emphasized are roads and highways, power, irrigation, waterworks, and rural electrification. These categories account for 73 percent of total infrastructure investment programmed for the period, or 61 percent of total capital outlays.

Table 4 indicates the sources of funds for the government's capital outlay program. Virtually all of the non-infrastructure outlays is planned to be financed from domestic sources. The bulk of the infrastructure investment requirements (74 percent) will be met from domestic sources. About 26 percent (\$161 million, FY 1975; \$280 million, FY 1976; \$312 million, FY 1977; \$385 million, FY 1978) of total infrastructure investment is planned to come from disbursements of foreign loans, most of which are expected to be on concessional terms. The planned levels of foreign loan assistance for infrastructure projects appear to be ambitious targets which are not likely to be realized. In FY 1974, foreign assistance for infrastructure projects was about \$44 million, or slightly more than double the level in FY 1973. Disbursements of concessional loan assistance for infrastructure and non-infrastructure projects have been projected by the IBRD to amount to only \$105 million and \$180 million in calendar years 1975 and 1976, respectively (see table 5).

External Assistance Requirements and Sources

In its November 1974 review of the Philippine economy, the IBRD projected that the economy's foreign exchange requirements will amount to

\$2,340 million for 1975 and 1976 (see Table 5). The projected foreign exchange gap was based on the following major assumptions with respect to trade: (a) the deterioration in the external terms of trade which started in mid-1974 would continue over the next two years; and (b) import growth would be consistent with the investment and growth requirements of the Philippine economy. Under these assumptions, the trade deficit is projected to increase from an estimated \$680 million in 1974 to \$820 million and \$1,250 million in 1975 and 1976, respectively. Receipts from merchandise exports are projected to increase by about 30 percent in the next two years while import payments are projected to rise by almost 40 percent, including a 30 percent rise in prices. In real terms, exports are projected to grow more rapidly than imports over 1975-76, but this gain will be more than offset by a projected cumulative decline in the external terms of trade of about 23 percent. This would bring the terms of trade back to the level that prevailed in 1972, thus wiping out the gains made in the recent boom in export prices.

The current account deficit is projected to amount to \$650 million and \$1,070 million in 1975 and in 1976, respectively. In each of these years, loan repayments would amount to \$310 million annually. The Philippine external capital requirements for 1975-76 thus amount to \$2,340 million.

The IBRD projects that of the required external capital, about \$190 million is expected to be provided from net direct foreign investment. An enlarged inflow of foreign equity investment is forecast because of much-improved prospects for private foreign investment. Short-term trade credit is projected to provide about \$480 million. The greater use of short-term trade finance is consistent with the much higher level of import payments and does not represent an unduly large accumulation of short-term private debt. About \$800 million is expected to come from disbursements or suppliers' credits and other medium- and long-term commercial loans to the private and public sectors. About \$280 million is projected to come from disbursements of concessional project assistance from Consultative Group members. The balance of \$590 million (\$180 million in 1975 and \$410 million in 1976) would have to be provided from other borrowings.

The projected \$590 million gap could be financed by Central Bank short- and medium-term borrowings. This might even increase gross international reserves, but would reduce net reserves to a negligible level by 1976. This would leave the Philippines with very little room for maneuver if the terms of trade continued to decline after 1976. Besides the possibility of very quickly having negative net reserves, additional short-term borrowing could result in having to roll over a large short-term debt, or to the extent that medium-term borrowing is arranged on commercial terms, a medium-term debt management problem could occur. In view of these adverse implications for the external position and external debt management, the IBRD recommended that excessive recourse to short- and medium-term borrowing by the banking system be avoided.

As an alternative to short- and medium-term borrowings, the IBRD suggested the provision of an appropriate combination of quick disbursing commodity assistance with long maturities and medium- and long-term loans to meet projected foreign exchange shortfalls. A combination of commodity assistance from Consultative Group members (about \$75 million) and possible assistance from an IMF special oil facility would suffice to meet import requirements in 1975 and maintain at the same time a reasonable external debt profile. The much larger shortfall in foreign exchange availabilities projected for 1976 would have to be financed by a combination of commodity assistance (about \$75 million) and medium- and long-term loans to avoid an undue increase in debt burden in later years. The medium- and long-term loans would be used to finance capital goods imports which are projected to reach \$1.2 billion in 1976.

The IBRD concluded that if the projected inflows on the capital account are forthcoming, and if the projected shortfalls in foreign exchange availabilities are financed in the manner suggested, management of the external debt and debt servicing would not present serious problems. The IBRD projects that external medium- and long-term debt outstanding would rise from \$2 billion this year to about \$3 billion by 1976. The ratio of debt service payments to exports would fall from 15 percent this year to about 13 percent in 1976. It would then grow somewhat, mainly as a result of the projected increase in public and private commercial borrowing to about 16-17 percent by the latter part of the 1970s. This assumes that external terms of trade would stabilize beyond 1976.

Consultative Group Assistance

As indicated in the preceding discussion, the Consultative Group members would have to provide up to a total of ~~\$765 million to help cover projected foreign exchange shortfalls over the next two years. This total includes about \$485 million of program assistance (\$150 million of commodity assistance and \$335 million of medium- and long-term loans to finance capital goods imports) and about \$280 million of project assistance.~~

The disbursements of program assistance would have to come entirely from new commitments. In the case of commodity assistance, the likely sources are Japan and the US. If the Japanese Government maintains its recent levels of commodity assistance, about \$50-\$60 million per year may be forthcoming. Depending on crop availabilities, the US may be able to provide about \$10-\$20 million of PL480 Title I commodities. The sources of medium- and long-term loans to finance capital goods imports are highly uncertain at this time, and as suggested by the IBRD, possibilities in this area should be explored by the Philippine Government with donors. If no loan assistance is forthcoming, the Philippine Government would have to reassess its growth strategy for 1976. Some investments, particularly for long-gestation projects, would probably have to be postponed.

About \$225 million of disbursements of project assistance are projected to come from the existing pipeline of project assistance, which is estimated to be about \$700 million at the end of 1974. The remaining \$60 million would come from new commitments. This expected rapid build-up in disbursements of project assistance is due to the much larger commitments made by the Consultative Group members in recent years as well as to the much-improved project development and implementation capabilities of the Philippine Government. Compared with 1971, commitments of project assistance doubled in 1973 to about \$200 million, and are expected to double again in 1974 to over \$400 million.

The IBRD recommends that commitments of project assistance from official sources should be maintained at the 1974 level in real terms, if disbursements are to attain a level commensurate with the level of public development expenditures that will be required in the latter part of the decade. At current prices, this would mean commitments of close to \$500 million in 1975 and over \$500 million by 1976. At present, the Mission projects that commitments of project assistance from Consultative Group members will total between \$400-\$450 million annually. The actual commitment rate of project assistance would therefore have to be higher than presently anticipated in order to sustain a disbursement rate consistent with public investment requirements during the latter part of the 1970s.

Table 2

Macroeconomic and Sectoral Targets of the
Philippine Four-Year Development Plan for FY 1974-77
(in million pesos at 1967 prices)

	Actual FY 1972	Projected FY 1973	Targets					Average Annual Growth Rates (%) FY 1974-77
			FY 1974	FY 1975	FY 1976	FY 1977		
1. Gross National Product	35,167	37,277	39,700	42,479	45,452	48,861	7.0	
Growth Rate (%)	6.0	6.0	6.5	7.0	7.0	7.5		
2. Gross Domestic Capital Formation	6,529	7,238	8,213	8,801	9,525	10,417	9.8	
% Share in GNP	18.6	19.4	20.7	20.7	21.0	21.3		
a. Private	5,822	6,278	6,659	7,059	7,765	8,542	8.0	
% Share in GDCF	89.2	86.7	81.1	80.2	81.5	82.2		
b. Government	707	960	1,554	1,742	1,760	1,875		
% Share in GDCF	10.8	13.3	18.9	19.8	18.5	18.0	20.4	
3. Net Domestic Product	28,670	30,088	31,913	33,978	36,254	38,664	6.5	
Growth Rate (%)	5.0	5.0	6.1	6.5	6.7	6.6		
a. Agriculture	9,116	9,207	9,649	10,132	10,649	11,182	5.0	
% Share in NDP	31.8	30.6	30.2	29.8	29.4	28.9		
b. Mining	665	760	897	1,059	1,250	1,475	18.0	
% Share in NDP	2.3	2.5	2.8	3.1	3.4	3.8		
c. Manufacturing	5,880	6,174	6,730	7,403	8,143	8,957	10.0	
% Share in NDP	20.5	20.5	21.1	21.8	22.5	23.2		
d. Construction	798	1,130	1,243	1,367	1,504	1,654	10.0	
% Share in NDP	2.8	3.8	3.9	4.0	4.1	4.3		
e. Transportation	1,102	1,152	1,204	1,264	1,328	1,396	4.9	
% Share in NDP	3.8	3.8	3.8	3.7	3.7	3.6		
f. Commerce	4,472	4,596	4,907	5,142	5,390	5,649	4.7	
% Share in NDP	15.6	15.6	15.4	15.2	14.9	14.6		
g. Services	6,637	6,969	7,283	7,611	7,990	8,351	4.5	
% Share in NDP	23.2	23.2	22.8	22.4	22.0	21.6		

Source: Philippine Government Four-Year Development Plan, FY 1974-77

Table 3

Capital Outlays Program of the Philippine Government
 FY 1975-1978
 (in millions of pesos)

	<u>FY1975</u>	<u>FY1976</u>	<u>FY1977</u>	<u>FY1978</u>	<u>Total FY 1975-1978</u>	
					<u>Amount</u>	<u>Percentage Distribution</u>
Total Capital Outlays	6,993.8	8,234.4	9,430.0	11,081.5	35,739.7	100.0
Infrastructure Program	<u>5,363.9</u>	<u>6,838.5</u>	<u>8,044.1</u>	<u>9,692.5</u>	<u>29,939.0</u>	<u>83.8</u>
Power	1,046.0	2,164.0	2,340.9	2,651.3	8,202.2	22.9
Highways	1,434.1	1,707.2	2,058.7	2,666.1	7,866.1	22.0
Irrigation	556.3	581.9	722.3	825.4	2,685.9	7.5
Waterworks	123.6	235.3	553.4	774.1	1,686.4	4.7
Rural Electrification	320.9	357.5	352.1	426.9	1,457.4	4.1
Railways	163.8	181.7	368.3	583.7	1,297.5	3.6
Flood Control	319.1	273.9	297.8	344.9	1,235.7	3.4
Export Processing Zone Authority	345.6	247.7	146.1	161.6	901.0	2.5
National Buildings, Hospitals and Sanitaria	186.7	158.8	221.4	299.6	866.5	2.4
Airports	183.5	182.2	194.8	283.9	844.4	2.4
Portworks	197.8	193.9	196.8	230.8	819.3	2.3
Telecommunications	82.2	162.4	182.4	236.7	663.7	1.9
Schools	130.4	117.8	134.1	179.7	562.0	1.6
Others ^{1/}	273.9	274.2	275.0	27.8	850.9	2.4
Non-infrastructure Capital Outlays	<u>1,629.9</u>	<u>1,395.9</u>	<u>1,385.9</u>	<u>1,389.0</u>	<u>5,800.7</u>	<u>16.2</u>

^{1/} Includes shore protection, miscellaneous public works, and project cost adjustment.

Source: Budget for the Fiscal Year 1975: Republic of the Philippines

Table 4

Sources of Financing for the Capital Outlays Program
 FY 1975-1978
 (in millions of pesos)

<u>Financing Source</u>	<u>FY1975</u>	<u>FY1976</u>	<u>FY1977</u>	<u>FY1978</u>	<u>Total FY 1975-1978</u>	
					<u>Amount</u>	<u>Percentage Distribution</u>
Infrastructure	5,363.9	6,838.5	8,044.1	9,692.5	29,939.0	100.0
Domestic Sources	4,266.6	4,935	5,922.9	7,075.9	22,200.4	74.2
Foreign Loans ^{1/}	1,097.3	1,903.5	2,121.2	2,616.6	7,738.6	25.8
Non-infrastructure	1,629.9	1,395.9	1,385.9	1,389.0	5,800.7	100.0
Domestic Sources	1,629.9	1,395.9	1,385.9	1,389.0	5,800.7	100.0
Foreign Loans	--	--	--	--	--	--

^{1/} Equivalent to \$161.4 million, FY 1975; \$279.9 million, FY 1976; \$311.9 million, FY 1977; \$384.8 million, FY 1978, converted at exchange rate P6.8:\$1.00.

Source: Budget for the Fiscal Year 1975: Republic of the Philippines

Table 5

Foreign Exchange Requirements and Sources of Financing
(million \$)

<u>Item</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>	<u>1976</u>
<u>Requirements</u>	<u>-170</u>	<u>735</u>	<u>950</u>	<u>1,390</u>
Current account deficit	-475	450	650	1,070
Amortization of MLT loans	305	285	300	320
<u>Supply of funds</u>	<u>531</u>	<u>660</u>	<u>845</u>	<u>1,055</u>
Direct private investment (net)	64	80	90	100
Short-term trade finance (net) ^{a/}	90	200	225	250
Medium and long-term loans (gross) ^{b/}	377	380	530	705
Private commercial borrowing	196	190	250	300
Public commercial borrowing	57	65	100	150
Project loans from Consultative Group ^{c/}	26	60	105	180
Commodity loans	98	65	75	75
<u>Deficit</u>	<u>-701</u>	<u>75</u>	<u>105</u>	<u>335</u>

Source: 1973, Central Bank of the Philippines; 1974, IBRD mission estimate; 1975 and 1976, IBRD mission projection.

^{a/} Includes errors and omissions in 1973 and 1974.

^{b/} Excludes borrowing by the banking system.

^{c/} Includes project loans for infrastructure and non-infrastructure projects.

POPULATION/FAMILY PLANNING

POPULATION/FAMILY PLANNING SECTOR

Overview

Generally accepted demographic and economic data for the Philippines are presented below:

Population - est. mid 1974	42.0 million
Crude Birth Rate	41/000
Crude Death Rate	11/000
Annual Growth Rate	3.0%
Years to Double - at current growth rate	23
Married Couples of Reproductive Age	5.4 million
Percentage Married Couples of Reproductive Age Currently Using Contraception	18%
Urban Population	32%
Labor Force Employed Agriculture	52%
Per Capita GNP (dollars)	250
Life Expectancy at Birth	59
Literacy Rate	83%
People per Doctor	3,034

In general, demographic trends in the Philippines have been and will continue to be unfavorable for economic growth. A high population growth rate (estimated at 3.0% to 3.4% during the 1960's) has resulted in a skewed age structure (46% below 15 years of age) and consequently a high ratio of dependents supported by working age adults (about 87%) in 1970. While overall economic growth averaging approximately six percent during the 1960's was satisfactory in comparison with most other developing countries, GNP per capita growth rate was limited to about 3% a year because of population increase.

Philippine development prospects will be influenced over the medium term more by past demographic trends than by current ones. In the long run, prospects will be increasingly influenced by ongoing population/family planning efforts. On the basis of past trends, the labor force is expected to expand by about 2.7% per year in the 1970's resulting in approximately 4 million net entrants. The total population is expected to exceed 50 million by 1980 and, should the present rate of rural-urban migration continue, the urban population would increase by about 6 million to an estimated 17-18 million. Such an increase would make it difficult to reverse the observable deterioration in urban conditions. Additional demands will also be placed on the educational system (as enrollments increase in the 1970's by an expected 3.2 million) and health and other social services as well as on the entire agricultural system.

Despite moderate growth in public expenditures for education and health during the 1960's, per capita expenditure in real terms on these

two services showed practically no improvement over the period. A high rate of population growth combined with substantial price inflation inhibited quantitative improvements in government-provided health and government services.

Because of the high densities of small farmers in parts of Central and Northern Luzon and the Eastern Visayas and the large number of entrants in the labor force, there has been heavy migration from these areas to Mindanao and to urban areas, particularly Manila. The rural-to-urban migration rate estimated at about 5% a year has contributed substantially to the deterioration of urban conditions. Further, despite efforts to reduce the relatively high morbidity and death rates from tuberculosis and water borne diseases, the Philippines is faced with the prospect of increased public health problems if population growth outstrips improvement in water, sewerage and health services.

During the past 15 years or so, the Philippines has imported food but except for a few commodities, such as wheat and milk, food imports have normally constituted only a small percentage of domestic requirements. Continued high population growth over the next 5-10 years combined with anticipated increases in per capita income will intensify already strong pressures on the food supply. Self-sufficiency in cereals (rice and corn) appears feasible within the next few years given the central role of agricultural growth in the Government's strategy.

Malnutrition among young children - particularly in those families having large numbers of children or in families with closely spaced children - remains a serious problem. Ninety percent of Filipino children aged 1 to 14 are underweight by age when measured against internationally agreed weight standards. Average completed family size continues high at almost 6 children per family.

Philippine authorities generally recognize the seriousness of the country's population problem and have moved much more rapidly than was deemed likely or even possible as recently as 1970. The Philippines has shifted from being a country with a pro-natalist policy to one supporting an increasingly comprehensive population program. This change has been achieved despite resistance from at least some elements of the Catholic Church and other more conservative groups. In December 1972, a Presidential Decree legalized all medically accepted methods of birth control except abortion. The GOP has increased its budget support relating to family planning from a relatively insignificant amount in 1970 to \$6 million in FY 74, including local in-kind contributions. Income tax and labor laws had been amended to encourage smaller families, and recently, an official instruction to all municipal mayors requires applicants for marriage license to present evidence that they have been counselled about family planning.

During the last three years, the Government of the Philippines has initiated and implemented numerous other population policies and programs directed to the goal of reducing population growth. A Commission on Population established in 1970, administers the national population program providing family planning clinic services, training, information, education and communication services, and research. The program, which now includes the operation of more than 2,200 family planning clinics, is implemented by forty private and government agencies and is operative in all provinces, municipalities and most barrios in the country.

These efforts will now be augmented by the activities of the Population Center Foundation, a private institution established recently with support of the Government of the Philippines, the Agency for International Development, and the Rockefeller Foundation. The Population Center Foundation will function primarily as a grant-making foundation rather than an implementing agency and will direct its resources mainly to the private sector. It will concentrate its efforts in three areas: research, innovative programs and technical assistance.

The Philippine population/family planning program has greatly benefited from strong support of both President and Mrs. Marcos and key elements of the government structure. However, greater support involvement is both desirable and necessary from other quarters. In view of the gravity of the problem and despite encouraging actions taken over the past three or four years, further efforts are required to bring home to various hierarchical levels of Philippine officials a full appreciation of the consequences of continued rapid rates of population growth.

The Philippines' high population growth rate and its attendant problems have received attention in recent years from a large number of international organizations and agencies. The Philippines suffers neither from failure of the international community to recognize the seriousness of the problem nor from lack of external resources to attack it.

External assistance is provided by A.I.D., the IBRD, the Ford Foundation, the Rockefeller Foundation, Pathfinder Fund, the Asia Foundation, United Nations Fund for Population Activities, International Planned Parenthood Federation, Family Planning International Assistance, World Neighbors, and the Government of Japan, among others. In calendar year 1974, such assistance accounted for about one-half of total program costs.

While AID continues to provide the bulk of external assistance, significant contributions are being made by UNFPA to population-education programs in public schools and to mass communications research and action programs. Other donors are supporting activities such as management training for program administrators (Ford Foundation), contraceptives (condom) supplies (Japan); information and motivation (Asia Foundation), and pioneering in new approaches to providing contraceptives services (FPIA, AVS, Pathfinder Fund, IPPF and World Neighbors). The Rockefeller

Foundation is a major contributor to the Population Center Foundation. The IBRD has recently obligated a \$25 million loan to construct or renovate facilities for health and nutrition programs and to further integrate family planning with health services. IBRD support also will focus on training multi-purpose workers in health and family planning. WHO is providing expanded and improved maternal and child health services and training, including family planning, in 25 selected provincial hospitals and expects to extend these services to an additional 75. In addition, selected training and consultation assistance is being provided by U.S. universities and research organizations.

While much progress has been made in providing contraceptive services, and surveys indicate the target population is now generally favorably disposed to family planning, the more difficult task of closing the "knowledge-practice gap" and persuading a large majority of child-bearing age couples to take the particular actions necessary for small families lies ahead. There is yet no reason to revise the GOP goal to reduce the growth rate from 3% (1970) to 2.5% (1976), although it is increasingly clear that this ambitious goal will not be achieved without a major expansion of the availability of contraceptive services, particularly in rural areas. The estimated 800 to 900,000 couples who are currently practicing contraception needs to be significantly increased to 1,500,000 to 1,800,000 users (25 to 30 percent of eligible couples) if a one-sixth reduction in the birth rate from 43.2 per thousand in 1970 to 35.9 per thousand by 1977 is to be achieved. The target may be reached if performance in reducing marital fertility is markedly improved or if other demographic variables such as increases in the age of marriage continue to support a declining birth rate.

The program, unfortunately, has not yet developed a demographic data base adequate to verify and confirm real impact on the birth rate. Consequently, USAID, with the collaboration of demographic research institutions in the Philippines, is strongly encouraging special efforts including national and regional surveys to provide data for a comprehensive demographic evaluation of the program. Preliminary analysis of the 1973 National Demographic Survey indicates that the continuing increase in marital fertility experienced throughout this century has peaked and that fertility rates are on a declining trend, at least among significant age groups of married women.

In addition to the extensive infrastructure for the delivery of contraceptive services that has been established, a more comprehensive approach to population planning is rapidly evolving through the incorporation of population activities into the programs of other national agencies and key departments concerned with economic and social development. These include a number of rural-centered programs by Local Government and Community Development, Education, Social Welfare, National Defense, Labor, Agriculture, the Nutrition Council among others.

An important shift in program emphasis in support of the above strategy is planned by the new Executive Director of the Population Commission. This shift is designed to place special emphasis on inter-relationships between family planning per se and comprehensive rural development. Characterized by major moves to decentralize planning and program management down to regional, provincial and lower levels. It lays stress on working from the "ground up" rather than the top down and is based on the assumption that now that the clinic infrastructure is largely in place, the main task is reaching the rural barrio family. It seeks to identify and utilize all available means to carry family planning to the rural barrio. It recognizes both the importance and the limitation of static clinics. It promises to strengthen both the planning and operational role of the various implementing private and public organizations - under policy guidance and coordination of the Population Commission, and to enhance the role of local and provincial government in the program. These alterations of the program are in line with views long held by the USAID and promise to strengthen chances of achieving program goals.

Problems and Opportunities

Future efforts to reduce rapid population growth in the Philippines will require pursuit of two main streams of mutually reinforcing actions. The first will be directed to further strengthening of a "Full Coverage Delivery System" of contraceptive services ensuring their complete availability through both program and non-program channels. This includes improvement in the quality of these services and the mounting of additional outreach efforts directed primarily to rural populations. The second line of complementary action can be categorized as "Achieving Greater Social Support for Lowered Fertility" by harnessing those natural "allies" in the development process who can incorporate population/family planning objectives in their activities.

Establishing A Full Coverage Delivery System

Extending coverage, availability and improving the quality of contraceptive services should aim at and hopefully result in increasing the prevalence of contraceptive use among married couples of reproductive age from the current 18.0 percent to 30 percent or more through program efforts. With aggressive and most likely subsidized commercial distribution, it should be possible to enlist an additional 10-15 percent of eligible couples as regular contraceptive users. It is expected that the introduction and complete extension of newer contraceptive technologies - particularly male and female sterilization - will contribute significantly to achieving these goals.

It is the present judgment of the GOP and USAID that achieving full coverage and availability will remain a clear priority support objective for the next two-three years at a minimum. Whereas some might disagree

or be impatient with this pursuit of a 'somewhat conventional program approach as opposed to greater emphasis upon so-called "demand creation" efforts it should be recognized that the Philippines' family planning delivery system has not yet reached the stage where maximum impact from the provision of services has been achieved. On the contrary, abundant opportunities exist for obvious or gross adjustments to improve program operations, for example, removal of supply constraints, better manpower allocation, streamlining clinic procedures (including such fundamental steps as paying motivators and other staff on time), full extension of non-clinical supplies, and engaging the approximately 10,000 private physicians in the nation who remain outside of program involvement. The above kinds of straight-forward modifications in program operations are essential and entirely possible to complete within a two-three year time span. Once accomplished, it is reasonable to expect correspondingly major results in terms of increased contraceptive practice.

Achieving Greater Social Support for Lowered Fertility

Essential as the achievement of the above first priority objective may be, however, at some point soon it must be recognized that completed Filipino family size now is six and the median "desired" number of children tenaciously remains at four. This suggests that even full coverage or availability of contraceptive services may succeed in reducing Filipino completed family size by only two. To develop an effective demand comparable to the availability of services and to change patterns of human reproductive behavior toward an ultimate goal approaching replacement will require a better understanding of the culturally-relevant determinants of Filipino fertility. Additionally, achievement of these changes may require substantial financial and organizational investments -- the dimensions, details and timing of which can be developed in only general terms at present.

Filipinos must substitute a smaller family norm for the present six-child norm if serious overpopulation is to be avoided. External resources can help, but the strategy, tactics and program must be devised and implemented by Filipinos themselves in a "Filipino solution to a Filipino problem." Fortunately, the Philippines has an impressive institutional capacity, and social science research base for identifying and attempting to modify factors critical to changing family formation attitudes. The Philippines can muster the information, education, communication and related motivational and social development talent and other resources needed to influence those critical variables once identified.

In addition, the desirability and, indeed, necessity of linking population/family planning objectives to other development and modernization activities is increasingly recognized by both the private and public sectors in the Philippines as well as by major donors. Important

"allies" in the effort to reduce rapid population growth have yet to be fully engaged, e.g. agricultural extension and rural development, land reform and local government and community development. (Education is a stand-out exception and rapid strides are being made incorporating population materials in the entire school system.)

Collectively, these potential allies can and ultimately must (a) serve as sources of information, persuasion and referral for potential contraceptive users and (b) incorporate in their respective program activities specific efforts designed to generate greater social support for lower fertility and especially the adoption of new norms favoring smaller completed family size.

As achieving a "full coverage delivery system" approaches reality and viability, this yet-to-be precisely designed package of reinforcing actions should be developed and pilot-tested for feasibility, cost benefit, political acceptability, and administrative and financial control. Once such support is routinely and fully forthcoming from other development sector efforts, it is to be hoped that a major dampening impact on fertility can be obtained so that any need to resort to more administratively-determined or restrictive measures can be avoided.

Forward Look

There are several ways to grapple with the question, "What constitutes success in population/family planning?" Two concepts, one quantifiable in terms of measured change in national fertility behavior and the other, partially quantifiable but also judgmental regarding the capacity of the host country to effectively reduce rapid rates of population growth provide a perspective for elaboration.

A frame of reference regarding the setting of short, intermediate and long-term goals for fertility levels (and rates of population growth) can be obtained from the attached graph, "Projected Population Size Under Varying Fertility Assumptions: 1970-2070".

For purposes of determining when external support should be phased down or completely ended in the Philippines, the following kinds of benchmarks could be considered:

<u>Measure</u>	<u>Action</u>
1. Crude Birth Rate (CBR) 35/1000 or greater (generally equivalent to annual growth rate of 2.5% or greater)	Full, multi-faceted support.
2. CBR 30/1000 and annual growth rate approximately 2.0%	Moderate phase-down of support providing younger age-specific fertility rates trending downward.

<u>Measure</u>	<u>Action</u>
3. CBR 20-25/1000 suggesting annual growth rate of 1.0% - 1.5%	Shift to selective, modest support levels.
4. CBR below 20/1000 and annual growth rate of 1% or less	Discontinue external assistance.

Examined somewhat differently, the timing of adoption of lower family size norms could also be used as a gauge for determining levels of external assistance. (Fortunately, techniques of demographic analysis can provide insights about trends in fertility without waiting for succeeding generations to pass beyond child-bearing age.) These benchmarks might look like this:

1. Five to six-child family norm	Full support
2. Four to five-child norm	Full support
3. Four-child norm	Full support
4. Three to four-child norm	Moderate support
5. Three-child norm	Modest, selective support
6. Two to three-child norm	Discontinue support

The obvious question arises, "When will a country like the Philippines adopt a five, four, three and ultimately two child (replacement) family size norm?" The answer, unfortunately equally obvious, is that "No one knows." It might be argued that lower family size norms will not be adopted soon enough to avoid increases in death rates resulting, for example, from inadequate food supplies. Alternately, economic pressures related to shortages in food supply, scarcity of employment and rising aspirations for more material goods may combine to bring about fundamental changes in reproductive behavior much sooner.

Without debating the ultimate logic of the Malthusian equation, however, what can we reasonably anticipate? Our present speculation is as follows:

1. A four-child norm seems possible by 1980 if vigorous attempts to provide a Full Coverage Delivery System succeed in the next two-three years. Any delay in implementing that system will cause a corresponding delay in achieving the former.
2. A three-child norm might be attainable by 1985-90 if the Full Coverage Delivery System is supplemented by comprehensive and vigorous measures to achieve Greater Social Support for Lowered Fertility by the end of this decade.

One must also consider measures of the capacity of the Philippines to effectively deal with reducing rapid rates of growth. As this capacity matures and gains confidence (which is rapidly evolving), the need for external support correspondingly diminishes. As illustrated above, the indicators of reduced crude birth rates and adoption of lower family-size norms will provide overall measures of program effectiveness. This can be further disaggregated by separate assessments of vital program components such as organization, use of technology, qualifications of personnel, definition of task and resources required.

As this institutional capacity and competence is acquired, the need for external support changes and presumably lessens. At a minimum, external support needs become more selective, e.g. continued import of some contraceptive commodities and continued training but much less subsidization of local costs.

PHILIPPINES - PROJECTED POPULATION SIZE UNDER VARYING FERTILITY ASSUMPTIONS
1970-2070

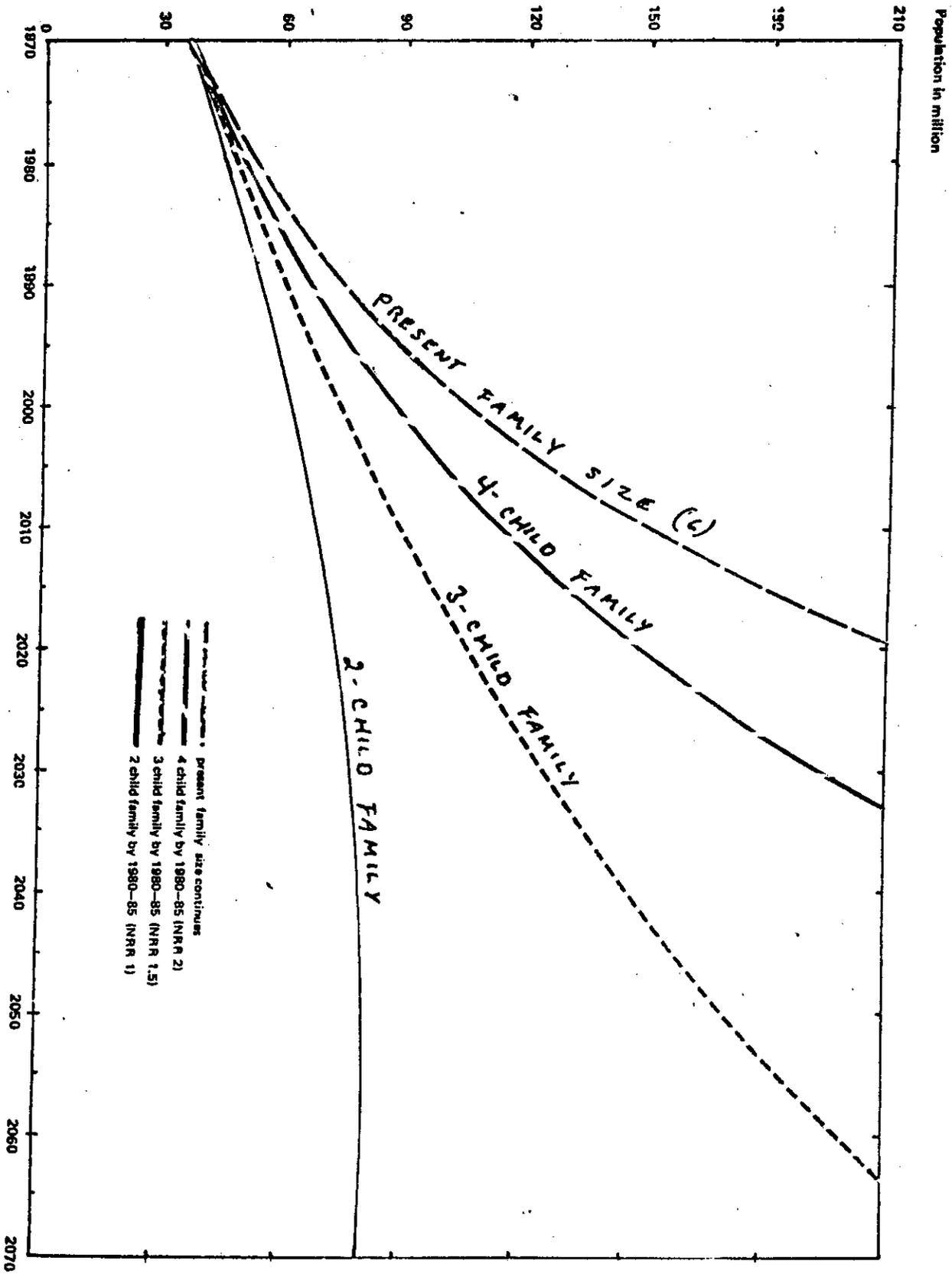


FIGURE 1

POPULATION/FAMILY PLANNING

Background

The present Philippine population/family planning program began in June 1967 when USAID signed a project agreement with the National Economic Council. Under this agreement USAID provided funds to establish clinics and to conduct training programs for a number of private organizations and institutions. This support included commodities, salaries and operating costs and was channeled through the Project Office for Maternal and Child Health in the Department of Health. Subsequent agreements increased the number of organizations supported and the level of AID assistance. GOP assistance to the program however could, at best, be described as minimal. Indeed, until relatively recently it was thought that although the Philippines had one of the highest population growth rates in the world, its population was unreceptive to family planning programs. In late 1968, for instance, only two-to-three percent of the women in the Philippines were using modern contraceptive techniques and contraception was not discussed openly.

This situation changed significantly when, in January 1970, President Marcos declared that a reduction in population growth rate would be an objective of his administration and in July 1970 established a Commission on Population. The scope of family planning activities grew rapidly stimulated no doubt by the President's announced favorable policy but made possible by substantial USAID financial assistance which was now channelled through the new Commission on Population. While formerly the Philippines exhibited a generally negative attitude toward conception control there is now a political and cultural climate where the reduction of the population growth rate is a national goal actively pursued.

Current Effort

The present program enlists numerous private and public organizations in the clinical, research, evaluation, information, training, planning and management aspects of a comprehensive effort to reduce the number of births. The majority of USAID funding continues to be channelled through the Commission on Population (POPCOM). The primary goal of the program is to make contraceptive service available to at least 80% of the people who need and want them, along with information as to how the services may be used effectively. To this end a considerable proportion of the USAID effort is directed to providing the present 2,194 family planning clinics with the contraceptives and medical supplies necessary for their operation. Budgetary support for the operation of these clinics is also being provided. This support has been provided on a percentage basis with the USAID share decreasing as GOP budgetary support has increased. In FY 1965, the last year for such support, the USAID percentage will have decreased to 20%.

Other efforts involve the training of paramedics to enable them to dispose oral contraceptives and insert IUD's; training physicians in sterilization techniques, providing the equipment necessary and encouraging the inclusion of sterilization in medical school curricula; supporting a pilot project to market subsidized condoms through commercial outlets; and supporting a Barrio Resupply Point project designed to insure a constant supply of oral contraceptives in the barrios and to greatly increase the ease with which oral contraceptives are dispensed. In addition, support has been given to the establishment of 11 Regional Centers for the Commission on Population, and to demographic research and surveys. Through FY 1974 USAID commitments to the Philippine population program have totalled \$29.6 million.

Future Effort

Full Coverage Delivery System - With regard to our first priority objective of assisting the GOP to achieve a Full Coverage Family Planning Delivery System, USAID intends to:

1. Support the Population Commission as required to implement an expanding service and motivational program with particular emphasis upon reaching rural populations more effectively.
2. Support the Population Center Foundation (PCF) and through it, those private sector agencies which can continue to provide a large share of family planning services throughout the nation. Also, through the PCF we anticipate supporting the further development of institutional capacity in research, demographic measurement, and innovative schemes designed to increase levels of contraceptive use.
3. Continue vital commodity support, particularly for imported contraceptive requirements, for a period of five years or longer depending upon the development of local productive capacity, government and other donor support.
4. Strive to maintain a "flexible response capacity" so that resources required for unanticipated new program activities will be adequately and quickly be available.

Generating Greater Social Support for Lowered Fertility - In the broad and only partly defined area of generating Greater Social Support for Lowered Fertility, the possible role of USAID is less clear than in the first priority area of establishing a Full Coverage Delivery System. Nevertheless, conventional and emerging wisdom on this subject can be translated into country-specific population policies and actions that will assure an integrated exposure for all citizen within the country to relevant knowledge of the local consequences of different patterns of reproductive behavior. In furtherance of this goal and as opportunities present themselves, USAID proposes to:

1. Support promising research and demonstration efforts through the Population Center Foundation and other institutions with capabilities in the social sciences applicable to community and rural programs.

2. Provide modest "risk capital" for demonstration activities if alternate sources of funding are not available.

3. Work energetically within other USAID-supported programs, e.g. PDAP and Regional Planning, Agriculture and Rural Development and Nutrition to determine how population/family planning objectives can be incorporated and furthered in the entire spectrum of organized development activity. (This does not imply use of Title X funds for elementary education, cottage industry programs or rural infrastructure development. Instead, it suggests selective use of population monies for incremental, "seeding" activities directly related to population/family planning objectives with measurable and attributable fertility control payoffs. The whole thrust of proposed action in this area is to enlist natural allies and mobilize supporting forces similar to what already is underway in the fields of population education, home economics and nutrition extension and social work.)

Support costs associated with this dimension of anticipated program effort can now only be speculated. Presumably, a major portion of these actions will be sponsored by the Population Commission, the Population Center Foundation and more importantly, by the operating departments and agencies concerned. With the addition of modest institution building and training support, assistance on the order of \$100-150,000 during FY75 gradually increasing to probably no more than \$300-400,000 in four to five years now seems reasonable given the pace of developments in this area and the still untested absorptive capacity of participating organizations.

Refinements of Future Program - A joint US/GOP program review and planning exercise will be conducted during January/February 1975. The results of this review will determine in large part the scope and nature of AID's population assistance in FY76 and future years and will provide the basis for a new joint USAID/GOP/private sector program. The plans for the program are expected to be ready for submission to Washington in the middle of the calendar year.

The currently approved PROP provides a comprehensive statement of the Philippine population problem and actions being taken to deal with it. The reader is referred to that document as well as to the various special documents on population/family planning in the Philippines which have been provided to AID/W, especially the "Four Year Population Program" of the Population Commission and the Commission's Annual Report.

End Results and Beneficiaries

If the goal of reducing birth rates is to be met, greater emphasis on rural areas heretofore untouched by the program must be targeted. Implementation of the new outreach strategy discussed above will extend the program's coverage and broaden the base of beneficiaries to the lowest economic strata of the country as well as to the geographically inaccessible.

→ Analysis of recent new acceptors into the national program indicates the median age is approaching 28 with more than half of recorded acceptors having 3 or fewer living children. Those using the clinics to date have had a higher education than the average for the population and, typically, have been urban residents rather than rural. Again, the concentration on rural outreach activities in the future should bring the program to more of the barrio poor. Cumulative acceptor statistics indicate probably one million women are practicing contraception under the national program with the new recruits apparently reaching a plateau at about 50-60,000 per month. This represents about 18% of the eligible population. Current expectations are that the number of women in this category, i.e. those practicing contraception under the national program, can be increased to between 1.5 and 1.8 million by 1977.

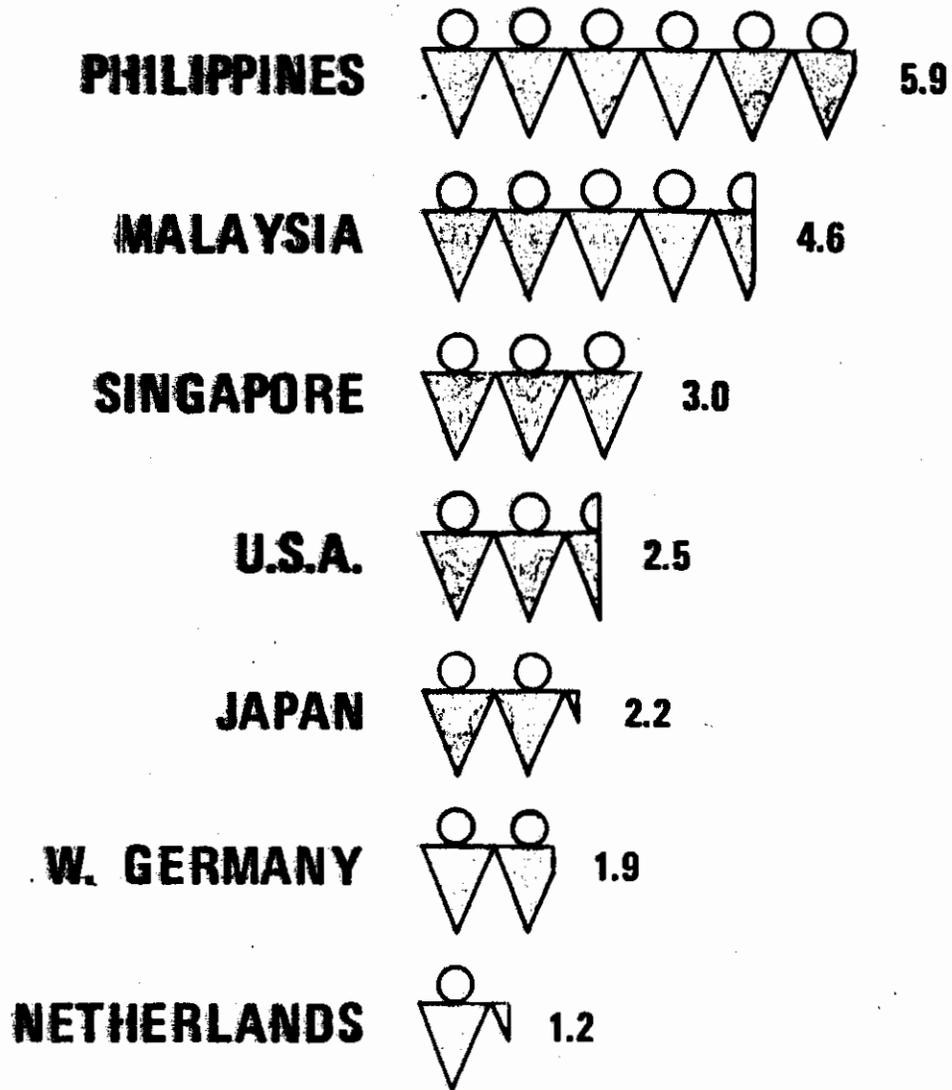
Future U.S. Role

Organized attempts to reduce rapid population growth in developing societies are new and only partially proven. Despite the increasing complexity of such programs, clearly the Philippines' effort is emerging as one of the most vigorous, comprehensive and promising of any in Asia. Because it is important for Philippine national welfare that this program succeed and secondly, because it can serve as a useful model to others, USAID support should continue at levels commensurate with the recent past so long as our assistance is requested and continues to be useful.

? Pending further review and refinement planned for the first half of calendar year 1975, we now estimate program assistance during the next three-five year period should be at a level of about \$5 million per year with approximately half and perhaps somewhat more allocated to purchase contraceptives and related materials. Estimates of requirements beyond that time frame cannot be made at present.

Figure 2

COMPLETED FAMILY SIZE



SOURCE: U. N. DEMOGRAPHIC YEARBOOK, 1972

Figure 3

CUMULATIVE NEW ACCEPTORS
FY 1970 - FY 1974
(In Millions)

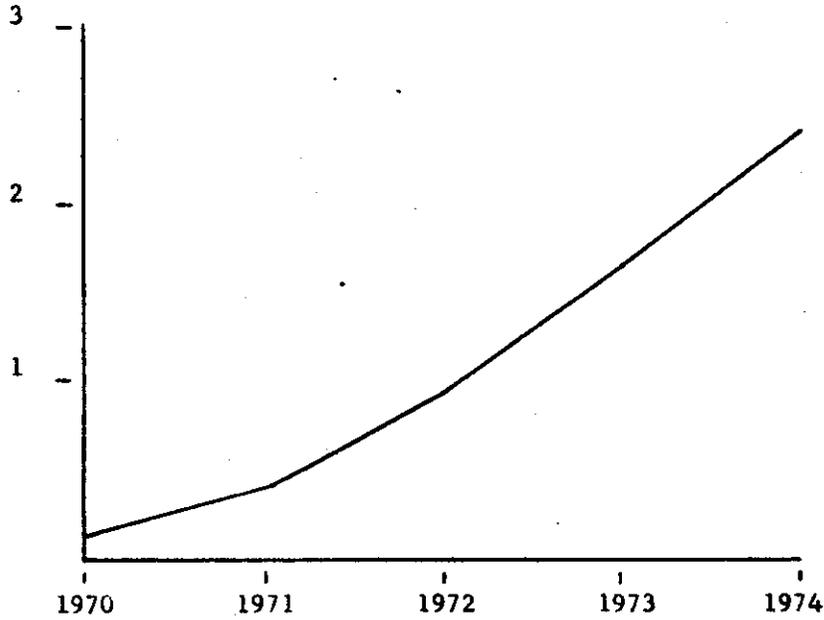
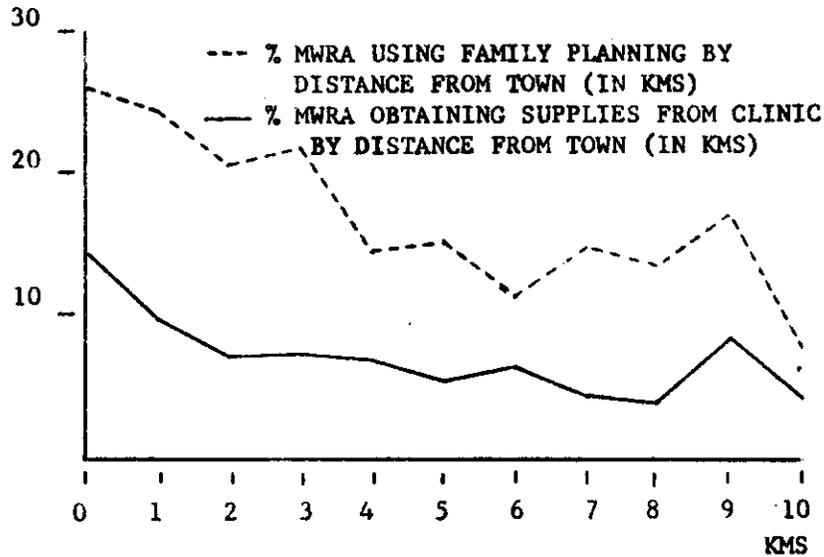


Figure 4

CONTRACEPTIVE USE & RESUPPLY ACCORDING TO DISTANCE
FROM TOWN



(Source: 1973 NDS)

NUTRITION

NUTRITION SECTOR

Present Situation

Average nutritional standards in the Philippines are among the lowest of any country in the world. The basic reasons for the serious Philippine nutritional situation are insufficient domestic food production and maldistribution of available foods. Average calories available per capita are about 2,000 and average intake is about 1700. Average proteins available per capita are 50 grams and average intake is about 46 grams. The average or per capita intake data do not accurately reflect the consumption levels of the poorest third of the population. The daily per capita calorie and protein intake for these people is estimated to be at least 25 to 30 percent below standard. A large majority of Filipino farmers, themselves and their families comprising about 70% of the population, exist on their own food production at barest subsistence levels, almost outside the cash economy. The average Filipino on the island of Samar, for instance, consumes less than 1500 calories per day, produces very little for himself and much less for the market.

The Philippine recommended daily average (RDA) per capita calorie intake is 2,000 and protein intake is 50 grams. Estimated daily per capita calorie intake in nearby countries are: Taiwan, 2,350 calories; Japan, 2,300 calories; South Korea, 2,200 calories; Malaysia, 2,100 calories.

The very poor nutritional status of the Philippine population is widely recognized as a major social and economic development deterrent. The Philippine Government and private sectors have become increasingly aware of this critical malnutrition problem over the last 15 years. Since 1970, both the government and private sectors, with the cooperation of private, governmental, and international assistance organizations, have mobilized resources and organized efforts to combat the problem.

The basic analysis of the problem has shown that the Philippines, excluding its major food exports, coconut and sugar crops, simply does not produce sufficient calories or protein to feed its population adequately nor are the shortfalls in foods imported. Further, this situation has prevailed for the past 75 years. Even in 1900 when the Philippines had a population of only about five million, its average caloric and protein intakes appear to have been no better than those of today. The Philippines has had to import rice, its major food crop, in all but 3 of the last 75 years. While increasing, total domestic food production available for human consumption seems to be barely keeping pace with population increase.

At the end of World War II the nutritional status in such neighboring countries as Japan, South Korea, Taiwan, Hongkong, and Singapore was

about equal or only slightly better than that of the Philippines. The malnutrition problem in most of these neighboring countries was largely solved primarily through increased per capita agricultural productivity and improved family incomes assisted by some deliberate nutritional interventions. In a sense, this was an evolutionary solution resulting from increased per capita incomes more or less equally distributed among the whole population. Additional food was among the first items purchased from these increased incomes.

Unfortunately, though there has been considerable increase in real per capita GNP in the Philippines since World War II, the increase has not reached the entire population equally or even proportionally. In fact, per capita real incomes of more than 50 percent of the rural peoples have not increased materially. Consequently, there has been no particular improvement in their nutritional status resulting from family income change; nor has there been any significant per capita increase in their agricultural productivity. While improvements in rural income and agricultural productivity are expected during the near term, their level combined with expected population increases will not be sufficient to achieve significant improvements in the Philippine nutrition situation in the near future.

Current Program

Confronted with the reality of insufficient food and the uncertainty of rapidly increasing agricultural productivity, the Philippine Government and its development partners, in particular USAID, have undertaken as first priority a direct, targeted, nutritional intervention aimed at curing the most seriously undernourished children in the country through age 14, giving first emphasis to pre-schoolers through age 5.

The approach being employed to implement this strategy is to identify over a four-year period the most seriously undernourished within the six months to five years age group, an estimated 7,000,000 children or 35% of all children in this age bracket, and to provide them with supplemental feeding to correct their severe undernourishment. The major source of this supplemental food has been U.S. PL480 Title II donations provided through private voluntary agencies, particularly Catholic Relief Services, Church World Services, and CARE. This targeted effort has been going on for nearly three years reaching as many as 2 million school children in 1972-73, 950,000 in 1974, and 450,000 pre-schoolers and their pregnant and nursing mothers in 1974.

Significant New Developments

Results of this feeding effort indicate that the most serious under-nourishment can be corrected among more than 70% of the recipients. Recognizing that this direct approach to under-nourished Filipino child-

ren works, the GOP has established it as a major element of its nutrition program. To maximize the benefits of this effort and to coordinate it with other activities in the nutrition area, a National Nutrition Council was established in June 1974, which is a central government structure to coordinate and direct nutritional activities nationwide. At the same time, private bodies under Executive Decree have set up a private nutrition foundation known as the Nutrition Center of the Philippines, to increase private and international support and give guidance for the Philippine nutrition effort.

A number of activities by both public and private institutions are carried on in support of the nutritional rehabilitation efforts. Government scientists have developed a low-cost pre-cooked weaning food prototype which is currently being explored by private industry for commercial production. The prototype is based entirely on local produce (rice, coconut, mung bean, and fish).

Studies are also under way in government and private laboratories to identify local flour sources (banana, sweet potatoes, cassava, defatted coconut) that can be used to partially replace the cereal staples (rice, corn and imported wheat). This is part of a nationwide campaign to conserve cereals and bring about a greater diversification of the diet.

Government scientists, in cooperation with private medical schools, are also conducting research to identify ways in which nutrition services can be integrated with other health services, particularly in delivery systems for reaching mothers and young children. These studies also include cost/benefit computations of various interventions which affect growth and development of infants (sanitation, water supply, food, immunizations, etc).

To insure strongest direction and coordination for this Philippine nutrition effort, a highly qualified physician/nutrition scientist has been appointed concurrently as the Executive Director of both the National Nutrition Council and the Nutrition Center of the Philippines.

National Philippine Nutrition policy, enunciated in a Four-Year Philippine Nutrition Program, is to carry out a broad-scale attack employing all types of interventions in coordinated efforts to eradicate undernourishment.

Since the reasons for serious malnutrition are broader than the basic problem of insufficient food, other contributing factors have been identified. Among the most important of these are inhibiting cultural practices such as poor basic eating and agricultural practices. Most Filipino families neither grow nor eat many fruits, vegetables, or root crops. This circumstance prevails despite the fact that most parts of the

Philippines enjoy soil and weather conditions conducive to easy production of these basic foods. These cultural practices can only be changed through strong, continuing information, and education efforts.

Prospects for the Future

The GOP realizes this and has launched a four-year home, school, and community garden program to promote increased local food production for local consumption, especially among targeted undernourished. This Program is known locally as the Green Revolution and stresses local production of vegetables, rootcrops, and fruits to supplement and ultimately replace imported donated food supplies. The Program is linked with the Philippine Nutrition Program which supports it and other interventions with massive continuing information and education efforts.

Further factors contributing to Philippine undernourishment are a lack of common nutrition knowledge among the vast majority of the population, poor weaning practices, poor child spacing, and too many children, poor public health practices, and poor distribution of available foods within or between families.

The average Filipino infant, for instance, during the first four months, grows at a rate equal to that of the average infant in the U.S. Between the 5th and 12th month, however, severe growth depression sets in, resulting in an average body weight of only 78-80% standard at one year of age. This is related to the recognized poor Filipino weaning practices, namely diluted milk formulas or diluted rice gruel. These weaning foods are not adequate, particularly since the mother may also be in a caloric deficit resulting in decreased breast milk for the nursing infant. Thus, during the second six months of life, insufficient calories lead to poor growth and this, combined with an unsanitary environment, which leads to diarrheas or other infectious diseases, further reduces the effectiveness of the already inadequate food supply. Close child spacing, which usually leads to large families, results in infants being denied mother's milk as they are displaced by still younger siblings. As a result, Filipino infants experience twice as much malnutrition if the next birth in the family occurs early (18 months or less) rather than late (31 months or longer). The close spacing results in more malnourishment among the young, increasing from 35% in families with only one pre-school child to 49% in families with three pre-schoolers.

The GOP is developing interventions to change these debilitating practices in order to improve the nutritional status of Filipino infants and young children.

The GOP now realizes the importance of correcting Filipino undernourishment and that this must be done by assuring that all its citizens have enough proper foods to eat. This requires the management and target-

ing the nation's total food supply and the provision and equitable distribution of enough food for every person. To achieve this in view of population increases will require within the next few years an increase of about 20% over current food availabilities.

As a realistic priority, however, the Philippines will first undertake to fill the calorie and protein gap for its seven million most seriously undernourished children. This will require a real increase of about 5% in total food availabilities. The government expects to make up this food deficit through obtaining increased food donations from international sources, increased local food production from the Green Revolution and from its regular national agricultural campaigns for grains and feeds, from increased food imports financed through concessional loans, and, finally, thru regular commercial import channels.

Consideration is now being given to developing and improving the mechanism for getting this increased food supply and other nutritional interventions to the target groups. A nationwide weighing campaign for pre-schoolers called "Operation Weigh" has been started which, through weight for age measurements, identified the most seriously undernourished children through age 6. Once identified, those in third degree malnutrition, expected to be about 6% of the total in this age group or 420,000, will be "adopted" by local barrio school teachers and "barangay" leaders for correction of their nutritional deficiencies. Since the Philippines has one of the world's highest child mortality experience (deaths among 1-4 year old children as a percentage of all deaths), more than 50% of those pre-schoolers in third degree malnutrition can be expected to die without nutrition corrections. This intervention is seen as an emergency effort aimed at saving lives now. To extend the outreach to the maximum number possible within this most seriously undernourished segment, consideration is being given to the use of a food stamp-type plan which would enable parents of these children to acquire the necessary supplemental foods to cure these children. The City of Manila is now experimenting with a food stamp plan.

A food stamp plan is also being considered as perhaps the best way to insure that most seriously undernourished Filipinos gain access to an equitable share of the nation's available food, including the augmented food supply the government hopes can be made available both thru local production and through increased imports.

The GOP is in the midst of a Four-Year National Philippine Nutrition Program to carry out these interventions. By the end of this program it is expected that the Philippines will have made major inroads in quantifying its nutrition problem, developing the organization, administration and supporting research to manage its nutritional responses, and will actually correct a significant part of the malnutrition of the most seriously undernourished Filipinos through age 14.

It will also be preventing sizable amounts of malnutrition from occurring. There will also be in place program and delivery systems which will enable the undernourished to take significant steps to correct their own undernourishment.

Looking ahead further, it is expected that by 1985 the Philippines will be able to achieve its own minimum recommended per capita caloric intake of 2,000 calories and 50 grams of protein. Even this will still be below generally accepted world caloric intake standards, and the Philippines will not be satisfied with its nutrition efforts until world standards are met.

The Philippines is already quite far along in developing a comprehensive national nutrition effort which may well serve as a model for other developing nations confronted with similar problems. Just as the world has turned to the Philippines for its internationally collaborative achievements in miracle rice, it is felt that it can also turn for nutritional experience in the years ahead -- a period when malnutrition as a world problem and a deterrent to human development will be of utmost concern and importance.

In addition to AID, American Voluntary Agencies and U.N. agencies such as UNICEF, WHO, and WFP have played important roles in the Philippine nutrition efforts to date. Much basic progress has been made and continued foreign assistance is viewed as both useful and necessary to that point when it becomes evident that malnutrition is no longer one of the Philippines' most serious problems and development deterrents.

NUTRITION

Background

The GOP has long been aware of a malnutrition problem and its relationship to high morbidity and mortality in infants and children. During the past two and a half decades, much work has been done in the field of nutrition by both government and private sectors. The malnutrition problem is recognized as caused by several factors: inadequate food supply (under production) and low incomes (low purchasing power for food) are major factors but poor food habits and unequal distribution of food within the families are also major factors in precipitating child malnutrition.

U.S. support to nutrition efforts in the Philippines started in 1950 when the Voluntary Agencies first mounted large Title III, and later Title II, food assistance programs to the Philippines in untargeted efforts to help cover basic Filipino food shortages among low income families. In 1957 USAID and the National Institute of Health started its direct involvement in nutrition by financing a study of the nutritional status of Filipinos. In the late 1960s USAID began to plan activities with the Department of Health to alleviate the extensive severe malnutrition found among pre-school children. In 1969, AID/W provided Incentive Grants to CRS/Philippines and Foster Parents Plan to use Title II foods in pilot Mothercraft Centers in Manila slums. These projects monitored by the Nutrition Advisors office provided daily feeding for pre-schoolers and nutrition education for their mothers.

By 1970, USAID resolved that continuing Title II voluntary agency food assistance could only be justified if it were targeted to the malnourished in ways where the results of supplemental feeding could be measured against definite nutritional targets and a significant number of the severely malnourished cured.

Based on earlier USAID, CRS and GOP pilot projects, the VolAGs, GOP and USAID developed targeted Title II nutrition programs for malnourished infants, pre-schoolers, pregnant and nursing mothers and elementary school children. These programs were called the Targeted Maternal Child Health Program (TMCH) for malnourished children ages six months thru six years and their pregnant and nursing mothers; and the Philippine School Nutrition Program (PSNP) for malnourished and underweight elementary school children.

Current Effort

The years 1970 through 1972 were transition years during which these major Title II programs became targeted on the malnourished. Constant evaluations and refinements were made to assure that they actually corrected the malnourishment of a substantial majority of the participants.

Extensive training was provided and private and government workers were enlisted to extend the outreach.

The TMCH program, mounted mainly by CRS and CWS, quickly became the major national, nutritional, supplementary feeding for pre-schoolers and mothers. This program is being serviced by more than 200 church-paid nutritionists and 400 nutrition aides as well as by 600 government technicians.

An elementary school nutrition effort thru CARE, CRS and the Department of Education and Culture was also developed with USAID assistance. This program uses a 500 Calorie, 17 gram protein Nutribun. Enrollees in the school feeding program are weighed and receive nutrition instruction. School gardens are encouraged both to provide supplemental food and to train and direct students to home gardening as an integral part of the Program.

These well-developed and disciplined TMCH and school programs have helped create a nutrition awareness throughout the Philippines and serve as a solid foundation for the accelerating Philippine Nutrition Program. Though they may employ supplemental feeding as a main input, they also include many other interventions such as education, local food production, and research. Additionally, they are excellent vehicles for the introduction of other nutritional interventions planned by the GOP.

Our past and continuing support to the Philippine Nutrition Program has been spearheaded by the work of contract personnel from Virginia Polytechnic and State University (VPI) as well as by helpful technical assistance from Washington arranged through AID/W's Technical Assistance Bureau (TAB).

VPI and TAB personnel have been particularly involved in overall planning assistance and in developing local flour extenders, testing community health delivery systems (with a nutritional component), and devising pilot schemes on food processing. Another institution, Texas A & M University, is under contract with AID to develop coconut skim milk as a high protein infant food and will start fieldwork in the Philippines in January 1975.

Future Effort

During the period FY 1974-78 USAID has set as its program goals the following:

- (1) The reducing of moderate and severe malnutrition in the pre-school child population approximately 25 percent, from a prevalence of about 35 percent to a prevalence of 27%. Further, the GOP has set as an expanded program goal an intensive nutrition information and

education campaign which should reduce further malnutrition among the young, particularly if improved weaning practices are achieved.

- (2) The improvement of the nutritional health of 10% of the elementary school age population through PL480 Title II food assistance on a phase-down schedule. Further, in cooperation with both public and private agencies (Department of Education and Social Action Agency of the Catholic Church, Philippines) USAID and the GOP expect to reach 90% of the nation's elementary schools and 4.4 million households with a program of home or school gardens and a means of replacing requirements for donated commodities in both school and pre-school child feeding program. Again, if there is reasonable success in this Green Revolution campaign the improvement of school and pre-school child nutritional health should be considerably above the goals set by USAID in its assistance effort.

Recognizing an even further need to marshal public, private and international resources for a coordinated attack on severe malnutrition problems, the Philippines First Lady founded the Nutrition Center of the Philippines in July 1974. This Center is to help insure the mobilization of all sectors of the country and to solicit interest from abroad to support its humanitarian efforts of relieving hunger and preventing retarded physical and mental development and malnutrition in the Philippines with major focus on infants and pre-schoolers. In its research and planning role, the Center will continually examine all nutrition activities, public and private, to determine how improvements can be made and how new interventions or innovations can be introduced in furtherance of improved national nutritional health.

NCP's information, education, and communication role is to use all available media to reach the general public with practical knowledge aimed at improvement of dietary practices. Particular attention will be directed to the education of mothers to improve infant and pre-school child feeding methods.

Many other nutritional interventions are also underway or being developed with USAID assistance. They include the development of an extensive information and education capacity to reach almost every Filipino citizen with nutritional knowledge on a continuing basis; an improved research program to develop indigenous food resources that can be used in place of or as extenders of donated or commercially imported goods (coconut flour and coconut skim milk, banana flour, blended weaning food, leaf protein, etc.). The GOP is also being encouraged to consider targeting its own food resources to its most undernourished peoples through use of foodstamp-type plan to insure their nutritional correction and capacity to make a productive contribution toward social and economic development. The GOP is also increasing its own peso contributions to solving its nutrition problem and is expected to budget about thirty million pesos directly for this purpose in FY 1976.

Beneficiaries

USAID considers this nutrition project as one of its principal efforts to reach large numbers of the Philippines lowest income peoples. This effort is particularly targeted on women who play the most important role in its success while enjoying direct personal benefits of better family health and increased income. The project outreach is on a continuing sustained basis. The improved nutrition, family planning, home food production and family life knowledge imparted directly benefit millions of Filipino families. This project is a cornerstone for the social and economic development of the Philippines. Through the Targeted Maternal Child Health Program approximately 1 million families will be reached. Through the School Nutrition Program 650,000 of a million families will be reached. Through the Green Revolution Program approximately 4 million families will be reached. In all of these efforts the focus is on low income families, and we estimate that the lowest third income class is often reached by 2 or more of these interventions. In addition, improved nutritional health as measured by better growth and development in children will benefit approximately 800,000 pre-school children and an equal number of elementary school age children.

Summary of Future U.S. Role

USAID is hopeful that these extensive efforts by Philippine public and private agencies will reduce the malnutrition problem by one third in the next 5 years. At that time, USAID assistance should be phased-out or at most extended 2-3 years on a considerably reduced schedule. Eradication of 90% of the malnutrition problem is possible in one decade if the program continues to receive GOP and private support at the levels now being planned. The importance of a successful family planning companion program, however, is of paramount importance since the population pressure on the food supply and large families vying for limited foods are major deterrents in achieving an adequate food consumption level. The families reached by the nutrition program (large families with low income and inadequate food) are a prime target for population planning. A continuous, vigorously-supported viable nutrition program can actually serve as one of the most logical means of entry for family planning program in those homes which are in large measure responsible for rapid population growth and high birth rates.

Table 6

NUTRITIONAL DETERIORATION IN NURSING INFANTS^{e/}

(Since breastfeeding is still much more common than bottle-feeding in the rural areas, it is felt that the newly-born infant is reasonably well-nourished. However, from 6 months of age onward, the mother's poor nutritional state leads to inadequate breast milk, early weaning, and nutritional deterioration of her infant.)

<u>Age (mos.)</u>	<u>% of Standard Weight</u>
6	93
7	90
8	88
9	86
10	84
11	82
12	80
15	79
24	79
48	79

^{e/}Ma. Minda Caedo, Victoria Santiago, and R. W. Engel, "Report of the Bulacan Province Nutrition and Family Planning Program", December, 1972. In manuscript form, Nutrition Division, USAID/Manila, Philippines.

Table 7.AGE-SPECIFIC FOOD INTAKE ADEQUACY, PHILIPPINES^{a/}
1959-1969

(The age-specific food intake data reinforces the view that infants, preschool children, elementary school children, and pregnant and lactating mothers are at greatest risk.)

		C A L O R I E S		P R O T E I N	
		Ave. Intake (Cal.)	% of RDA	Ave. Intake (grams)	% of RDA
Children	1-3 years	829	64	27.3	105
	4-6	1,103	69	30.3	94
	7-9	1,301	68	39.0	93
	10-12	1,439	63	42.2	94
Boys	13-15	1,547	55	49.0	80
	16-20	1,695	61	49.6	76
Girls	13-15	1,547	67	35.0	68
	16-20	1,352	64	45.2	75
Man		1,742	73	53.3	85
Woman		1,602	89	44.8	81
Pregnancy		1,464	64	43.7	67
Lactation		1,339	46	41.7	56

^{a/}"What is Protein Gap?", Carmen Ll. Intengan, Philippine Journal of Nutrition, XXV, January-March, 1972.

AQUACULTURE DEVELOPMENT

Background

Aquaculture is the production of freshwater and marine animals and plants through husbandry. Fish, and to a lesser extent shrimp and oysters, are by far the most important organisms in aquaculture from a standpoint of both economics and food production. Today, about 85 percent of the fish consumed by Filipinos is captured from wild stocks, but most stocks are overfished or at least already exploited fully and relatively few stocks are open to further exploitation. The other 15 percent of consumption is produced in aquaculture or imported (about 2%).

After rice, fish is the most important source of total protein in the diet of low income Filipinos. It is the single most important source of animal protein in their diet, and ranks ahead of pork, beef, poultry and eggs. It should be noted that fish is more desirable and higher quality source of protein than rice or corn. According to a survey conducted in May 1973, among the very lowest income group of Filipinos (less than ₱400 per capita per annum), fish provided about 20 percent of total protein intake and made up 61 percent of their animal protein intake.

The Philippines currently produces annually about 100,000 m.t. of fish in 175,000 ha. of fishponds for an average of 520 kg/ha/yr. This area represents about 8 percent of the world's 2.2 million hectares of ponds in fish culture, but yields only about 2 percent of the world's production of 5 to 6 million m.t. from fishponds. However, the Philippines has a very high potential for aquacultural development. Yields can be increased to at least 2,000 kg/ha/yr. Areas available for fishfarm expansion include about 500,000 ha. of swamplands and other areas well suited for fishponds but poorly suited for other forms of agriculture. In addition, the Philippines has ideal climate for growing fish. There are adequate financing institutions and an ideal social climate, i.e., fishfarming is a highly respected occupation. Aquaculture fish have high consumer acceptability. Fishfarmers are responsive to improved technology. People and other agricultural crops are rarely displaced by aquacultural development.

A highly significant aspect of aquaculture in the Philippines is its large potential for employment generation. Over 130,000 people are now employed in aquaculture, but many times this number could be involved within the next five years on part time basis if rice paddy fish culture proves to be as productive as research results indicate (conclusive results on the practicality and feasibility of simultaneously raising tilapia and IR 26 rice are expected by mid-1975).

Between FY 71 and FY 74 the AID input into fish production was a two-man Auburn University team contracted under the now completed Inland Fishery Project which helped to establish two research facilities. The first of these is a freshwater station at Munoz, Nueva Ecija, jointly operated by Central Luzon State University (CLSU) and the University of the Philippines College of Fisheries (UPCF) and a brackishwater station located at Leganes, Iloilo operated by the UPCF. Under this project some important research was conducted and perhaps more importantly, 12 participants were sent to Auburn University for graduate level training, 5 of whom now returned and are at work in the research stations.

Current Effort

Under the current Aquaculture Development Project, the scope of activity has been broadened to include in addition to research and training of research staff, training of extension workers and private fish farmers at the two stations. The Auburn University contract has added one man, making a total of three highly trained technicians to work with the research stations and the Bureau of Fisheries and Aquatic Resources (concerned primarily with extension efforts). Freshwater research currently underway gives emphasis to rice-fish culture, mono and polyculture of several species, freshwater monoculture of milkfish, fish production and mass fry production and pond construction and management. Priority at the Brackishwater station is placed on milkfish production, the predominant fish produced and consumed in the Philippines. Milkfish have never been spawned in captivity; at present, all fry are caught in coastal waters and raised in ponds or pens. Since 90 percent of fish production is in brackishwater, it is necessary to develop artificial spawning and hatching techniques, suppressing mortality of captured fry and standardized production techniques. This research will be applied to better brackishwater extension practices. This is a major target of the present project.

Future Effort

Techniques to increase fish production in both fresh and brackishwater are being developed and more ideas are in the research pipeline. A framework for continuing research has been established and capability for extending information to producers is developing. However, attainment of increased production goals built on a sound economic basis will require a dynamic aquaculture development program in terms of new technology through research, education of scientific manpower and faculties (graduate and undergraduate) and development of an effective extension system for dissemination of information and technology to the producers. Ideally, these services would function under a single administration, necessarily linked and totally programmed and coordinated.

The research and extension aspects have received some developmental attention in the past and efforts in these areas are being continued

under the present Aquaculture Development Project. The educational service has been neglected in the past even though it is also essential to long range development of aquaculture in the country. A lack of sufficient well trained manpower is the major limiting factor in development of the country's interminable potential for aquaculture.

Substantial progress could be made by strengthening the institutional framework of the UPCF to provide the highly trained manpower needed to develop an effective fish production program. The UPCF, under very able leadership has initiated a masters degree program this academic year. Graduate training has been started centered on efforts by returned participants and two PhDs from the Auburn University team who have been accredited on the UPCF faculty. However, the College of Fisheries urgently needs additional high quality professional staff to do the research and train future professional personnel. In an effort to strengthen the Inland Fisheries Department of the College of Fisheries, the GOP has expressed considerable interest in moving the Department from the Diliman campus near Manila to Iloilo on Panay Island, to take advantage of the brackishwater research station as well as the neighboring SEAFDEC facility, a rather elaborate complex primarily concerned with shrimp production. With these facilities partially built, the locale shows great promise for the development of a first class College of Fisheries capable of training students to the PhD level and conducting the research necessary to continually improve aquaculture technology and extend this information to producers.

It is expected that development of the manpower and facilities at the UPCF and CLSU will take place over the next ten years and cost an estimated ₱9.5 million for facilities, ₱1.2 million for commodities and ₱600,000 for technical assistance. The annual operating budget would range from ₱1.3 million during FY 1976 to approximately ₱6.2 million by FY 1985. The US could play an important role by providing a development loan and/or grant assistance for these institutions that will benefit not only the Philippines but all of Southeast Asia.

Expected Results and Beneficiaries

By 1978 when the present project ends, viable research and extension programs responsive to the needs of fish farmers should exist and aquaculture production should total approximately 327,300 tons (300,000 tons milkfish production, 300 tons rice paddy production and 27,000 tons freshwater production) as against a figure of 120,000 tons in 1973. Cost of production of milkfish in 1973 was about ₱2.25/kg. It is expected that with improved technology and better management techniques, production costs could be lowered by 1978 to an equivalent of ₱1.00/kg. With the lower production costs, retail prices will also be lowered resulting in an expected consumption increase among low income groups. On a per capita basis, this will provide about 6.4 kg. of milkfish as

opposed to 3.2 kg. in 1973. Since fish, especially milkfish are a major animal protein source, it is expected that the lowest income groups will benefit the most from this increased production.

By 1978 it is expected that a strong base for brackish and fresh-water research will have been developed, but more importantly the faculty at UPCF will have gained a capability to train 80-100 BS degree candidates, and 5-15 MS and PhD candidates from the Philippines as well as 15 MS and PhD candidates from regional or other countries. In addition, BS level training will be conducted at Central Luzon State University. With this teaching and research capability, sufficiently capable personnel will be available to train fish producers in the latest technology.

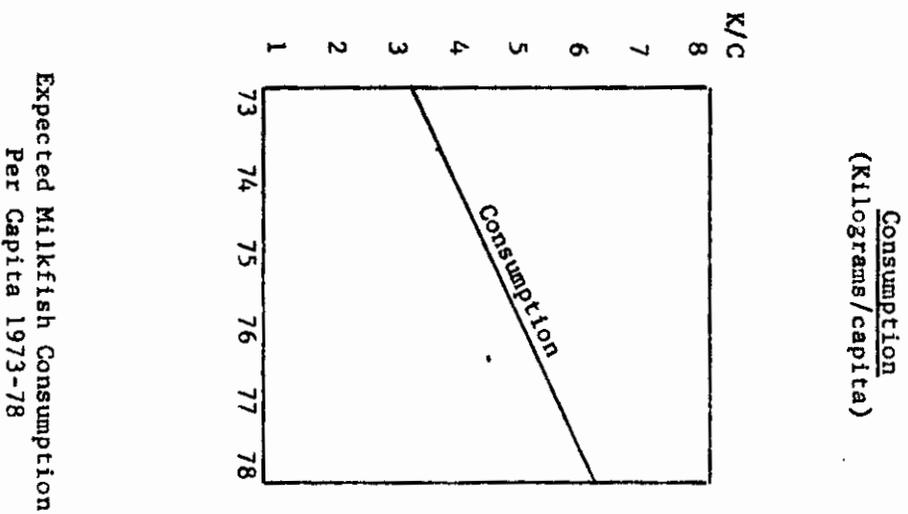
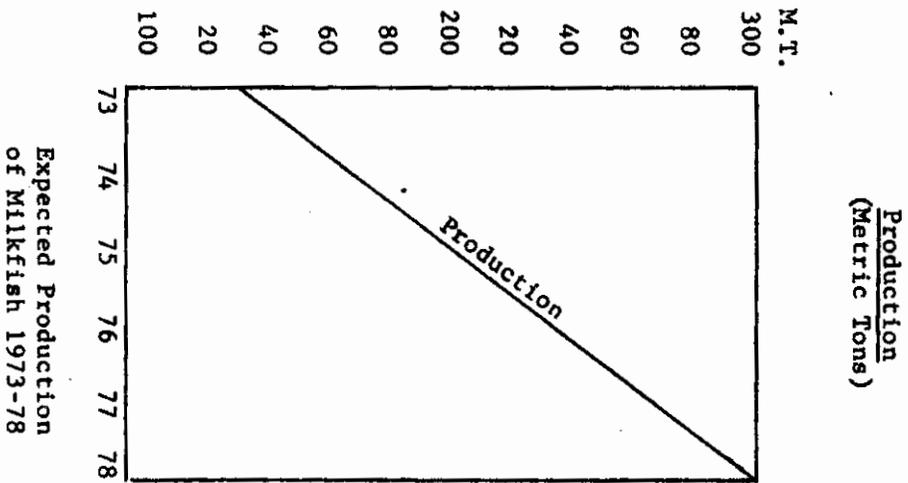
Summary of Future U.S. Role

The U.S. is expected to continue the Auburn University Contract until 1978. Through this contract an important linkage will be developed between these two very important Fisheries Colleges. In addition, a modest amount of commodities will be provided the project through grant assistance during this period.

The possibility of a \$3 million development loan and/or possibly grant assistance for the movement of the Inland Fisheries Department of the College of Fisheries from Manila to Iloilo would enable the University to establish a first class college that could provide training facilities for Philippine personnel, but other countries in the Southeast Asia as well.

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Figure 5
 Aquaculture
 Projected Production and Consumption
 of Milkfish 1973-78



RURAL DEVELOPMENT

RURAL DEVELOPMENT SECTOR

OVERVIEW

The Philippines continues to be predominantly a rural nation with more than two-thirds of its population residing in non-urban areas. It also remains predominantly an agricultural-based economy with agriculture accounting for more than one-third of Net Domestic Product, one-half of total employment, and 70 per cent of commodity export earnings. Within the rural sector itself, agriculture is even more dominant, accounting for about two-thirds of total rural employment and income.

Despite the essentially rural character of the Philippines, development and modernization until recently were primarily an urban phenomenon. Government development strategy and policies until the early 1970s, coupled with the influential role of the small and effective private entrepreneurial class, tended to emphasize capital intensive and geographically concentrated industrialization at the expense of agricultural/rural improvement. In recent years the Philippine Government has recognized the limitations of this approach and adopted a strategy which attempts to correct the past urban bias and its tendency to increase income disparities. Since 1971 strategic and policy priority has stressed agricultural and rural development. The chief burden of effort since then has been devoted to formulating the programs and delivery systems needed to translate the general emphasis into real efforts. Thus, while some programs have been mounted and some measure of success achieved during the past two years, particularly in terms of increasing farm income and in "gearing-up" for implementation of production and rural infrastructure programs, conditions of life in many rural areas remain basically unchanged and characterized by low agricultural productivity, insufficient income, underemployment and limited economic opportunities. The level of health and other social services is low and essential economic facilities are scarce; malnutrition is widespread; more than 90 per cent of the rural population do not have electric services; only about a quarter of the rural population is provided with potable water supply; and roads are limited in considerable measure to main routes. In addition, families tend to be large in size with many young dependents.

More than 4.4 million families live in the rural areas, of whom about four-fifths received an average annual income of P1,726 (\$268) in 1971. In contrast, slightly more than twice this amount was received by about four-fifths of the more than 1.9 million urban families during the same year. Available family budget studies show that the growth of real incomes in the rural areas was sluggish during the 1960s. The average annual real increase from 1961-1971 of median income for rural families was only 0.6 percent, less than half the urban average annual increase. Income distribution within the rural sector also worsened from 1956-1971 as the share of the bottom 60 percent of rural families in total rural

family income declined from 32.8 percent in 1956 to only 27.2 percent in 1971. However, there is some indication that this trend was reversed starting in 1973.

Employment opportunities in the rural areas remain extremely limited. Farming is a seasonal activity that occupies most farm families for less than two-thirds of the year. Organized non-farm jobs or means of self-employment are scarce, although in an effort to supplement their incomes many families do engage in some form of handicraft type work. According to national labor force surveys, open unemployment in rural areas is about 4-5 percent of the labor force. The level of underemployment, however, is much higher and is probably in excess of 20 percent.

Fixed productive assets are scarce in the rural areas. The rural population generally has little capital for investment and, until recently, only limited access to production credit at less than usurious terms. In 1970-71, only about 6 percent of farmers were reported as having incurred credit from an institutional source. This proportion has expanded substantially over the last two years as a result of the Government food production campaign which involves innovative methods of credit delivery. Institutional credit from both the government and private sectors has traditionally been highly collateral oriented and apparently neither interested in nor capable of competing with the high interest charging money lenders. Despite the clearly excessive rates charged by these lenders they did (and do) exhibit many operating strengths which the organized institutional credit system has recently been trying to emulate: their procedures are simple (non-bureaucratic); they do take substantial risks and often "roll-over" loans; and perhaps most important, they bring their services to the client rather than requiring the client to come to them.

While the Philippine rural sector is predominantly agrarian, the non-agricultural rural sector which includes small-scale manufacturing and service activities, is an important sub-system which if properly mobilized, could absorb an increasing portion of the rural labor force, including significant numbers displaced from agriculture. A more dynamic non-agricultural sub-system could also provide the agricultural inputs and consumer goods that will be demanded as agricultural productivity and incomes rise. The non-agricultural rural sector has traditionally fulfilled these functions, albeit very inadequately. The rural labor force in non-agriculture rose from something under 20 percent in 1950 to 30 percent in 1971. Income derived from non-agricultural activities comprised about 20-23 percent of the income of rural families in 1956 and 37 percent in 1971. Agricultural and farm households (i.e. those whose major source of income is either agricultural wages or entrepreneurial income in agriculture) earned about 15-20 percent of their total income from non-agricultural employment during the last decade, with only modest increases since the 1950s. In 1971 the important components of this non-agricultural income were wages (11.3 percent of total income), trading (3.2 percent), manufacturing (1.9 percent), and transport (1.4 percent). Despite the past growth of the non-agricultural rural sector, however, it

has failed to provide the dynamic source of employment and income associated with this sector in neighboring countries such as Taiwan and South Korea. For instance, existing industry is highly concentrated in the Greater Manila and other large urban areas while rural and small urban areas are characterized by the relative absence of diversified sets of economic activities.

Agricultural Situation

Philippine agriculture consists of a predominant small-scale sub-sector which produces the foodgrains for domestic use (rice and corn) and coconuts for export, and a larger-scale sub-sector which produces export crops such as sugar, bananas, and pineapple. The export sub-sector has traditionally earned much of the foreign exchange that has fuelled industrial growth over the last two decades. Despite the low productivity of the food producing (and predominantly small-scale sub-sector), the Philippines has been able to supply most of domestic food requirements. Historically, except for a few commodities not produced locally, only a small proportion of total food supplies have had to be imported. Over the next few years during which world food supplies are likely to remain tight, and provided that Government food production programs are successful, the Philippines hopes to achieve self-sufficiency in basic food commodities such as rice, corn, and fish.

Of the approximately 7.8 million hectares of farmland in the Philippines, 77 percent, or 6 million hectares is under rice, corn and coconuts. Eighty percent of the country's estimated 2.2 million farm units are less than 5 hectares in size and cover about 43 percent of the cultivated area; 40 percent are less than 2 hectares and cover 12 percent of the cultivated area. This latter group makes up the bulk of those with the lowest levels of income.

Land ownership in Philippine agriculture is highly concentrated and share tenancy is important, accounting for about one-third of all operators. Full owners represent a little less than one-half of all operators, and part owners about 15 percent. Share tenancy is highly significant on rice and corn land where it is estimated that about half of farmers are tenants, almost all on the basis of sharecropping, usually 50 percent of the crop. The tenanted rice and corn land averages 2.2 hectares for rice and 1.6 hectares for corn, significantly smaller than the average size held by owners. During the past two years significant progress has been achieved in reducing the incidence of tenancy on rice and corn land. Further reductions are expected as the Philippine Government continues to implement its accelerated agrarian reform program.

High population growth has resulted in considerable pressure of people on land in the Philippines. In 1970 the population density was 128 people/sq. km. compared with the Asian average of 86. Lowland areas best suited

for rice have been fully occupied for over a decade. Migration is heavy from overcrowded regions of Central Luzon and the Visayas to the Cagayan Valley in Northeast Luzon and Mindanao in the south. Squatters (kaingineros) have spread onto hillsides leaving behind serious problems of erosion or an increasing accumulation of lands taken over by cogon grass which serves no productive purpose.

Agricultural conditions vary widely throughout the Philippines as a result of its complex physiographic and climatic pattern. The transport and distribution of agricultural inputs and products is rendered expensive and difficult by the fragmentation of the national territory into numerous islands and by mountain ranges. As a result of these factors and of biases in location of Government investments, wide regional variations in factor proportions and in the composition of agricultural production are found, and regional income disparities are wide.

The average productivity of the labor force found in agriculture was approximately P2,000 (\$300) per worker in 1972, the lowest relative to other economic sectors. The average family income for the lowest quartile is less than \$100 per year. The cultivated area per worker is a little over 1 hectare. Capital per worker is still low and while the individual farmer is likely to have or share a carabao, powered equipment is rare. Modern inputs are only moderately widespread, despite fairly rapid increases over the last 10 years or so.

The nature of the growth process of agriculture has changed substantially during the postwar period; until about 1960, agricultural growth was based mainly on an increase in the area of land under cultivation, with relatively little change in technology or total factor productivity. About 1960, the growth of land under cultivation slowed and output growth became more dependent on productivity growth through investments in irrigation and accompanying increases in the use of fertilizer and double cropping, and the widespread use of the new rice varieties, particularly during the latter part of the 1960s. Future agricultural growth is expected to follow the pattern set in the 1960s, relying on intensive land use rather than on the extension of the margin of cultivation. Some flexibility, however, still remains to allow for a selective expansion of the land base. The IBRD in its Agricultural Sector Survey in 1972 concluded that as much as 2-2.5 million hectares, including about one million hectares of cogon grass lands which are difficult to rehabilitate, could still be made available for cultivation. More recent calculations made by the ILO (Ranis) Mission to the Philippines show figures much in excess of the IBRD estimates. While estimates of the remaining cultivable land vary, the consensus appears to be that the land frontier is not too far away and that if the future demands on the agricultural sector are to be met, the productivity of the land base will have to be improved.

Improving the productivity of agriculture inevitably means focusing attention on the small Filipino farmer. As indicated earlier, Philippine agriculture consists largely of small farms; consequently, sustained agricultural growth must be based primarily on the development of these small units. Additionally, small size in the Philippine context is closely associated with low productivity and related problems.

The small Filipino farmer must be seen in the context of his environment and the forces that may have a negative or positive effect on his ability to produce commercial crops. The farmer as a production unit is only one small part of an overall socio-economic system. For him to perform at a higher level than subsistence farming, numerous services and infrastructure facilities i.e., farm-to-market roads, electricity, irrigation, markets, finance, schools, production inputs, security, etc., must be available.

The small farmer is highly dependent upon the other members of the community in which he lives. Because of his small fields, it is more difficult to control water, weeds, insects, and diseases except in cooperation with his neighbors. Further, economic and political weakness is usually associated with small size. The costs of supplying physical inputs (water, fertilizer, pesticides, seeds, etc.) as well as credit and information are higher per unit produced for a small farm than for a larger unit. Thus the small farmer is at the mercy of merchants, money lenders and officials, unless his effective strength has been upgraded through organization into groups. It is virtually impossible for the very small and the very poor to be rugged individualists. Unfortunately, the weaknesses which make group organization imperative also make effective organization difficult.

The margin between hunger and adequate subsistence for the small farmer is very narrow. Thus, he is unable to risk his family's food supply on a new seed variety, a new crop, or a change in cultural practice that is not, in his mind, a sure thing. On the average he is unable to use sophisticated technology, because it is more likely to require purchased inputs and he has little control over the many circumstances that effect the financial outcome. When interactions between practices are strong, as they seem to be among four or five essential elements in modern rice production technology, the difficulty of the small farmer is multiplied. It is not surprising that he hesitates to adopt technology which appears complicated and beyond his command.

Development Approach

Given the existing rural and agricultural situation outlined above, it is clear that rural development, in terms of improving the conditions of life of the large numbers of rural poor, will require both social and economic measures. The former will involve lightening the child-bearing and rearing burden of rural families, improving their nutrition and

health, and providing them with cooperatives and other social institutions. The latter will require improvement in agricultural productivity, and in the physical and institutional infrastructure needed to support and to complement agricultural development. The GOP has accepted this approach to development for reasons of promoting both social equity and overall balanced economic growth. Basic plans and enabling conditions are already in place to a significant degree, and some implementation momentum has been gained, particularly during the past two years.

In support of the rural development approach outlined above, the government has mounted major programs aimed at increasing provincial level development capabilities and resources; rationalizing land tenure systems and transferring rice and corn land to the small farmers who till it; increasing cereal and other (e.g. fish) crop production to provide the small farmer increased income and improved nutrition; expanding the population/family planning and nutrition effort; and putting into place both the basic and the attendant provincial level infrastructure, such as electricity, roads, irrigation, needed to serve the rural areas and increase both their output and, of great significance, their consumption patterns as well. During the past two or three years the Philippine Government has also been moving toward a set of policies which will substantially benefit small farmers. Expansion of credit and subsidization of key agricultural inputs, particularly fertilizer, are among the more important of these policies. Effective price support programs are being developed to reduce risks to farmers and to assure them adequate income. In addition, the Government has, during the past two years, been actively pursuing policies aimed at strengthening the individual farmer's economic position through cooperative efforts. Major experiments and programs for the promotion of cooperative activities are being undertaken.

The Philippine Government is also attempting to explore innovative means (e.g. integrated area development programs) to speed development payoff for the rural areas. Integrated area development programs comprise a set of interrelated and complementary projects, multi-sectoral in scope, and aimed at developing a defined geographic area which is predominantly rural but possesses great development potential. These programs differ from traditional approaches which give relatively little consideration to inter-project or inter-sectoral relationships.

The USAID is providing assistance to a number of the major Government rural development programs particularly those in the agriculture sub-sector and targeted on the rural poor as main beneficiary. USAID's deep commitment to the growth and improvement of Philippine agriculture is demonstrated by the importance of the projects addressed to problems in that sector. These projects are described in the succeeding project papers and include:

Aquaculture Production Project

This project assists the GOP with research on and extension of improved production practices and cost reducing management techniques for use by fish producers. Two key research centers have already been established; the Brackishwater Research Center on Panay Island, concerned primarily with bangus culture, the single most important pond-reared species; and the Freshwater Research Center in Central Luzon, currently studying mono and polyculture of important freshwater species. The project aims to provide increased animal protein at reduced costs to low income Filipinos, many of whom are malnourished.

Agrarian Reform Project

This project is concerned primarily with the equitable distribution of rice and corn land to the landless. It involves the development of vital small farmer support services and systems to make the new land holder commercially viable. The project stresses development of marketing and production cooperatives, improvement of credit opportunities, as well as the mechanics of land transfer and compensation, all of which are integrally involved in supporting the tenant farmer during his transition to owner-operator status. Research is being conducted to help facilitate and rationalize support to the agrarian reform effort and the particular interests of the small farmers.

Bicol River Basin Development Project

The Bicol River Basin, a relatively underutilized and low income area, possesses considerable potential for food production and industrial expansion. The purpose of the Bicol project is to demonstrate the mechanisms and approaches needed to conduct integrated area development. Initially emphasis is being placed on establishing the data base and institutional structure needed. The project involves several major GOP agencies in the planning of infrastructure (water, transport), crop/livestock expansion and diversification, land consolidation and use and other activities. Social research has been incorporated as an important part of the Bicol River Basin Development Project.

Small Farmer Income and Production Project

This project supports the GOP food self-sufficiency goals by providing technical assistance to institutionalize and "fine-tune" the management of government rice and corn campaigns. Additionally it supports the technical side of production programs with vital and direct linkages with key research institutions (International Rice Research Institute and Philippine Council for Agriculture Research) aimed at identifying constraints which limit incremental production and profit. Technical advisory services are offered, as needed, to provide in-depth analysis of specific problems encountered in optimizing the small farmer's income and production.

In addition to the above AID has and is supporting a number of other activities in the agricultural sector. Among the most prominent of these are development of the National Irrigation Administration as a major force in the planning and management of the Government's major irrigation enterprises, the studies for some of which have been financed by AID; upgrading of the undergraduate and graduate level teaching and research capabilities of the entire College of Agriculture complex at Los Baños, particularly, and at Mindanao and Central Luzon state universities also. Support is also being provided for the International Rice Research Institute (IRRI), the Rodent Research Center (RRC) at the University of the Philippines, Los Baños, and the Agricultural Diversification and Marketing Project (Project ADAM) at the Philippine Government's Bureau of Agricultural Economics.

IRRI

The IRRI supplies vital technical information incorporated into the government crop production campaigns. IRRI provides many types of applied research trials to determine suitability and profitability as well as farmer acceptance of its recommendations.

RRC

The RRC performs an instrumental research role in the prevention and management of vertebrate pest damage which is estimated to be as much as 20% of the annual rice harvest.

ADAM

Project ADAM is designed to develop a linear programming model jointly with the Bureau of Agricultural Economics. The model when finalized will be useful for improving policy formulation for the agricultural sector.

In addition to these activities, AID is supporting other activities such as rural electrification, irrigation and feeder roads, all directly related to basic problems in the agricultural sector.

External donor assistance, to a large extent following USAID's lead, has begun to be directed to support the GOP's increased emphasis on the rural sector. However, as both the Asian Development Bank (ADB) and the IBRD recognize, the major focus of their resources and attention during the next few years is likely to remain on large capital intensive infrastructure projects.

The major factors impeding agricultural development specifically, and rural development generally, are discussed in the succeeding paragraphs. Also discussed are the Philippine Government programs and external assistance which are addressed to these problems. Further discussion of these matters is provided in the succeeding project papers. These matters are discussed under the two headings of Agriculture and Rural Infrastructure.

AGRICULTURE

Land Tenure

Land ownership in rural areas is highly concentrated and share tenancy is widespread and important, particularly on rice and corn land. Inequitable distribution of land holding is a major cause of income disparities in the rural sector, and has been a long-standing obstacle to improving productivity and income levels for some one million rice and corn tenant farmers and their families. Among the problems associated with tenancy are the strong patron-type over-dependency of tenants on landlords for basic livelihood including production resources; traditional difficulties of tenants in obtaining credit because of high risk and inadequate collateral; an increasing gap between tenant and landowner as modern technology is disseminated; and a disproportionately weak tenant voice in government and society as contrasted with landowners. The Government traditionally has provided less credit and institutional support for tenants than for landowners.

The Philippine Government has embarked on a major agrarian reform program with the dual purpose of transferring land to rice and corn tenants and increasing their productivity through a range of supporting services provided, primarily, by cooperative mechanisms. The present program will immediately result in an improved income distribution in rural areas by reducing tenant payment from the current level to the annual amortization. In the short run, agrarian reform is likely to be neutral with respect to its effect on agricultural productivity. Over the longer run, however, it is generally accepted that agricultural productivity will be enhanced.

Significant progress has been achieved to date in the implementation of agrarian reform. Certificates of Land Transfer have been issued to most tenants on rice and corn farms in excess of 50 hectares, and the Government intends to issue certificates to all tenants down to the 24 hectare level by the end of 1974. When implementation to the 24 hectare level is completed, about one-third of the tenant farmers will have been covered. Recently, the government announced the decision to carry land transfer to the 7 hectare level. As of September 1974 over 14,000 barrio associations which are basically pre-cooperative institutions, had been organized and over 40 per cent of potential members registered. Credit availability has also been greatly expanded through supervised credit schemes sponsored by the Government.

The USAID is assisting the GOP agrarian reform program by offering technical assistance in various aspects of the land transfer operation, in testing cooperative structures in the pilot provinces of Nueva Ecija and Camarines Sur, and in agrarian reform research.

Production Inputs

Credit in the past has served as the chief operative block to the needed flow of certain production inputs, particularly fertilizer, to the small farm. During the past two years or so however, rural credit, parti-

cularly to small farmers, has been substantially expanded to support the Government's accelerated food production and agrarian reform programs. To participate in the Government's special rice production campaign, labeled Misagana 99 --- inadequately translated to mean "bountiful harvest--- 99 cavans (4.5 m.t.) per hectare"--- farmers had to accept a supervised credit production program that included HYVs and technology. To reach the small farmer, a non-collateral credit program was devised using a group of farmers signing as guarantors. By October 1974, approximately 759,000 rice farmers, supervised by 3,300 field technicians, had borrowed P674 million and had planted 1.16 million hectares. The rapid expansion in rural credit took place mainly through the Government-owned Philippine National Bank and the widespread private rural banking system and has been accompanied by high repayment rates. External assistance for rural credit expansion has been provided primarily by the IBRD and the USAID.

With recent positive changes in Government and private sector attitudes toward credit for small farmers, fertilizer availability per se has become, if not an immediate constraint on increased output, a problematic area needing serious attention. The Government anticipated the recent (and current) global tight fertilizer situation and aggressively sought and obtained additional short-term supplies (from eastern Europe, Latin America and elsewhere). Similarly, it initiated longer-term efforts to improve and expand domestic supplies and to establish assured and economic external supplies, primarily through arrangements with Indonesia. Because of these measures, the Philippine short- and medium-term prospects for fertilizer appear to be good. As a result, existing domestic pricing and distribution policies and programs (aimed at subsidizing fertilizer cost to the small grain producer to assure the use of at least minimal levels of fertilizer) are likely to become unnecessary past the near-term.

Seed availabilities, particularly for high yielding varieties of rice and to a lesser extent, for corn, have been adequate in recent years though some gaps in distribution have been present. To support the Government's food production programs, both Government and private sector resources are being directed toward expanding the production and distribution of certified high yield seeds.

The Japanese Government is assisting the expansion throughout the country of seed production and distribution. Eighteen stations of the Bureau of Plant Industry have been strengthened to provide seed materials to seed cooperators for multiplication and subsequent distribution to farmers within their respective areas. Assistance in seed processing and storage is also planned for seed producers.

Economic Services

Services necessary to support intensive agriculture remain short of needs. Marketing and storage facilities are inadequate in many areas resulting in maldistribution of output, distorted prices and wastage of often desperately needed foodstuff. The existing agricultural extension

service is fairly extensive but is clearly spread too thin. Present manpower availabilities allow only one extension agent for 1,400 farmers. The existing extension service capabilities are also limited by poor logistics support.

Significant progress is, however, being achieved in reducing the gaps in supporting services. The Government is upgrading and expanding agricultural storage and marketing facilities. The Food Terminal Market, a Government corporation, has constructed major facilities in the suburbs of Manila for food handling, cold storage, etc. Establishment of Farmer Trading Posts in the provinces to feed into this complex is underway. The National Grains Authority has ambitious plans for establishing Grain Service Centers throughout the provinces. The Department of Local Government and Cooperative Development is actively implementing a major program for federated cooperative marketing organizations and supermarkets. A number of agro-industrial parks are either being planned or in early stages of implementation. External assistance for agricultural marketing and storage has come mainly from the IBRD.

The Government also plans to improve its extension services to support its accelerated food production program. The overall objective is to improve the ratio of extension workers to farmers from the current level of 1:1,400 to 1:520 by 1978. Assistance for the improvement of extension capabilities has been mainly from the USAID and UNDP.

Research

Much progress has been made in recent years in improving rice technology and in extending these technological improvements to the farmers. However, comparable progress has not been made in corn, the second most important staple, or in other feed grains and high protein legumes that would not only increase small farm productivity, but would improve the nutritional base. Within the agricultural sector per se, a core of technically trained research and extension personnel is already in place. The high yielding rice varieties that enabled the Philippines to attain self-sufficiency in rice during the latter part of the 1960s, were the result of research conducted by the International Rice Research Institute (IRRI) and field tested and extended through the Philippine Government's efforts. AID has, and continues to play a major role in the support of IRRI. In addition, the University of the Philippines at Los Baños has been significantly assisted through AID technical and financial support, and has become one of the leading agricultural colleges in the Far East. A nation-wide research capability has been established under the Philippine Council for Agriculture Research (PCAR) and research activities are now being channelled to benefit the small farmers. The USAID is currently considering loan assistance to support priority research activities through PCAR. In addition to USAID, the UNDP has been a major provider of assistance in the area of agricultural research.

RURAL INFRASTRUCTURE

More Effective Local Government

Planning and decision making in the Philippine Government bureaucracy has traditionally been highly centralized. This factor has been a major constraint on sustained rural growth in the past; higher levels of government were either unable or unwilling to formulate realistic rural development programs and implement them effectively. Since 1972, however, the Philippine Government has followed a policy of decentralizing authority and responsibility for the design and implementation of rural development programs. The overall objective is to improve the planning process and increase the implementation efficiency of rural development programs and projects through broadened participation of local governments and regional offices of the national government.

With USAID assistance, the Government is currently seeking to strengthen the capabilities of local governments to plan and implement local projects. USAID assistance, which is provided in collaboration with the Provincial Development Assistance Project (PDAP) and the Department of Local Government and Community Development, is focussed on strengthening local infrastructure (primarily roads and small irrigation systems) capabilities, development planning and fiscal management, and tax administration. Its fundamental rationale and approach centers on marshalling local resources at sub-national (provincial and lower) levels for use in development efforts. This very large array of talent, capability and finance previously left unutilized (and which, in fact, frequently functioned in anti-development roles) represents a major expansion and democratization of the entire Philippine development process.

To provide an improved institutional link between local government and national government projects, Regional Development Councils (RDCs) have been created. The RDCs receive technical support from the National Economic and Development Authority regional offices and are responsible for the vertical coordination of plans between national and local governments as well as horizontal integration of activities undertaken by different line agencies of the national government in each region.

Power and Rural Electrification

Most rural families do not have access to electricity, and those who do normally pay many times the Manila rates for electricity which is generally available only 6 to 10 hours a day and then only on an irregular basis. Thus, the low cost power source needed to upgrade irrigation services or to use for small industrial or other production enterprises is not available.

The Philippine Government intends to expand power services very substantially over the next four years. The power program envisions an increase in national generating capacity from the present level of 2,948 MW

to 4,519 MW by 1978. In response to the energy crisis, the Government plans to accelerate the development of nuclear, hydro, and geothermal power sources and to reduce dependence on oil-fired thermal plants.

Large complementary investments in the distribution of electricity are also planned. The rural electrification program aims to establish at least one cooperative in each of the 72 Philippine provinces by 1982. This will provide access to electricity to over five million rural dwellers. The long-range goal of the rural electrification program is total national electrification by 1994.

Major investments in power generation and transmission are being assisted by the ADB and the IBRD, with ADB concentrating in Mindanao and the IBRD in Luzon. The Japanese Government also plans to assist an electrification project in Cagayan Valley. USAID is assisting the distribution phase through rural electrification and has also provided assistance for the development of geothermal energy. The Rural Electrification effort which AID is assisting, is one of the Government's highest priority programs. It introduces immediate and tangible benefits to numerous rural dwellers and functions as essential infrastructure for the growth and development of small and medium-scale industries. These in turn help to absorb the expanding rural labor force and lessen the flow of urban migration and thus urban unemployment and underemployment.

Irrigation

The IBRD Agriculture Sector Survey published in May 1973 states that rice self-sufficiency for the Philippines cannot be achieved without expanded irrigation infrastructure. The survey also indicates that existing irrigation systems performance falls far short of its potential, e.g., of the nearly one million hectares of irrigated land, only about two-thirds is cropped during the rainy season, and only slightly more than one-quarter is cropped during the dry season. The survey also estimated an extremely low efficiency rate - only 15% - for overall use of agricultural water in the Philippines.

The Philippine Government's irrigation program calls for construction and improvement during the next four years of irrigation facilities on over one-half million hectares of rice lands, about one-sixth of all rice lands. The irrigation program includes major storage and diversion systems, pumping programs, and small farmer irrigation systems.

Capital assistance for the improvement and development of irrigation systems is being extended by a number of donors including the IBRD, the ADB, the Japanese Government, the USAID, and Denmark and Spain. The IBRD is assisting three major related irrigation projects in Luzon: the Upper Pampanga River Basin Project, and the Aurora-Peñaranda and Casecnan-Trans-Basin Diversion projects (IBRD financing for the last project has not yet been approved, but is expected in 1975). The ADB is providing assistance for major gravity irrigation projects in Luzon and Mindanao

while the Japanese Government has approved loans for groundwater irrigation in Luzon (technical assistance for determining the irrigation potential of groundwater in Luzon was financed by the UNDP), and maintenance of national irrigation systems. The USAID has financed the rehabilitation of several systems in Luzon under a special flood rehabilitation grant and is now planning to assist in the improvement of small scale irrigation systems. Denmark and Spain are assisting with supply of diesel engines for pump irrigation projects.

Other donors and the Philippine Government itself are providing large amounts of financing for development of large scale new irrigation development and indications are will continue to do so during the next four years. However, neither other donors nor the government appears to be addressing the major problems impeding increased production on existing irrigated land; this is the lack of adequate operations and maintenance (O&M) on both major and small scale systems. USAID plans to address this problem with both technical and capital (loan) assistance, and to focus its assistance on the small scale systems.

Transportation

Access to markets is severely hampered by limited road networks and poor inter-island transportation. Although the GOP has made considerable progress in improving the major highway systems, particularly on the islands of Luzon and Mindanao, the feeder road network in most provinces remains grossly inadequate. The existing ratio of farm-to-market road for every square kilometer of cultivated land is only about .24 kilometers as against a desired standard of 1 kilometer. It is estimated that half of all rural barrios have only poor quality farm-to-market roads, which may be impassable during the rainy season, and another 20 per cent have little better than foot paths. The limited road network prevents the extension of the land transport system, and the poor quality of existing roads drives up the price of transport where it is available. Water transport is cheap but neither reliable nor of good quality.

The improvement and development of transportation facilities continues to occupy high priority in the Philippine Government's infrastructure program for FY 1975-78. Within the transport program, however, some realignment of priorities has taken place in response to the energy crisis. The bulk of resources in transport will still continue to go into highways and in particular, into large ongoing projects like the Pan Philippine Highway, the Iligan-Cagayan de Oro-Butuan Road, and the second IBRD road package in Central Luzon. However, greater emphasis is now being given to farm-to-market roads to aid food production programs.

External assistance in the transport sector is being provided mainly by the IBRD, ADB, and Japanese Government, and is focussed on the development and improvement of major road networks and arteries and ports. USAID support during the past two years or so has been and will continue to be focussed on feeder roads development implemented primarily through the Provincial Development Assistance Project. In FY 1975 development loan financing for this area of activity will be started.

Rural Industry

Existing industry is capital-intensive, import-dependent, and heavily concentrated in the Greater Manila and other large urban areas. There is a highly noticeable lack of manufacturing activity in rural areas to absorb excess rural labor, including off-season agricultural labor, provide for basic consumer goods and farm inputs, and process agricultural output.

The development of small industries, particularly in rural areas, occupies high priority in the Philippine Government's development agenda. A new Department of Industry has been created and the rules and regulations governing the Industrial Guarantee Loan Fund have been revised in order to limit the availability of Fund resources to medium and small-scale industrial projects.

The IBRD plans to extend a \$30 million loan package to the Philippine Government to assist the development of small and medium industries. The bulk of the package, about \$15 million, is proposed to be relent to private entrepreneurs through the Development Bank of the Philippines. Smaller amounts will be earmarked to augment the resources of the USAID-supported Industrial Guarantee Loan Fund, to support a number of electric/industrial cooperatives through the National Electrification Administration, and to provide for technical assistance.

In addition to its involvement in small and medium industry development through the rural electrification effort and the Industrial Guarantee Loan Fund, the USAID plans to explore various possibilities for assisting in the development of viable small and medium industry development programs.

LOCAL DEVELOPMENT

Background

In the mid-1960s, the Government of the Philippines and USAID agreed to conduct a limited local development project aimed at testing the basic concept that external resource inputs at local levels could produce greater benefits for rural dwellers than equivalent resources provided to existing central government agencies with responsibility for similar development activities. This concept was tested in the Provinces of Tarlac and Laguna under a program called "Operations SPREAD".

The positive results of "Operations SPREAD" resulted in the creation of the Provincial Development Assistance Project (PDAP) as an operating unit under the National Economic Council (NEC) through which the GOP and USAID could channel assistance to participating pilot provinces. In 1972, PDAP was transferred from NEC to the Office of the Executive Secretary which is a part of the Office of the President of the Philippines.

Since its inception, PDAP has been a focal point of GOP and USAID activities designed to strengthen the capability of provincial governments to respond effectively to rural needs for lower transportation costs, better access to markets, equitable taxation, expanded public investment, and improved rural employment opportunities. PDAP represents a continuing joint effort to reach and help the rural population through a systematic approach to rural development using the provincial government as the main instrument for planning and managing available resources. The methodology employed in this approach is based upon the field design, testing and implementation of pilot programs and systems relating to key development activities particularly planning, infrastructure development and fiscal management. An essential feature of these programs and systems is that they can be installed and maintained by the responsible and responsive indigenous personnel of the concerned local government institutions.

After four years of testing as a pilot approach, the GOP began to expand the PDAP program to other provinces as a model with demonstrated success for producing accelerated rural development. At the present time, 23 provincial governments representing approximately 40% of the rural population of the Philippines are participating in the PDAP.

Current Effort

As members of PDAP, the participating provinces are developing a management and planning capability using a number of appropriate level planning and budgeting tools. Each participating province has established and is maintaining a competent provincial development staff with the capability of preparing program documentation and coordinating

implementation of the corresponding programs. A Real Property Tax Administration Program represents a major accomplishment toward the development of an effective system of local revenue generation to support those development activities.

PDAP has placed great emphasis on the training of provincial officials and technicians. Specialized training in-country for provincial coordinators, fiscal analysts, infrastructure analysts, agricultural analysts and research specialists have been provided by PDAP in coordination with the Local Government Center of the University of the Philippines and other existing training institutions.

An outstanding accomplishment of PDAP provinces has been the development of provincial equipment pools and a corresponding infrastructure implementation capability using, primarily, construction equipment provided under the USAID Excess Property Program. This improved capability has already resulted in the construction of many rural infrastructure projects. These projects include over 2000 kilometers of additional provincial roads most of which were penetration feeder roads into areas being cultivated by small farmers and which in many cases have enabled a shift from subsistence farming to cash cropping.

Because of this demonstrated infrastructure implementation capability of participating provinces, the Office of the President in late 1972 directed PDAP to assume an additional responsibility by serving as the vehicle through which \$13 million in external assistance could be channeled to the provinces that sustained the greatest infrastructure damage during the floods that occurred in Central Luzon earlier in the same year. The provincial governments used these flood rehabilitation funds to reconstruct provincial roads, bridges and small irrigation systems. Under this program alone, the completed projects include 460 kilometers of provincial roads, 4200 linear meters bridges and irrigation systems covering approximately 1100 hectares of small farms.

The success of the flood rehabilitation program prompted the Government of the Philippines to invest ₱25 million from PL480 Title I generated local currency in a Special Infrastructure Program (SIP) under which similar type projects are being constructed in provinces that did not participate in the flood rehabilitation program. Subsequently, additional funds were provided to expand the SIP program to include the PDAP provinces that had also participated in the flood rehabilitation program. The SIP is limited to projects that are directly supportive of agriculture development, i.e., feeder roads, bridges and small scale irrigation projects. When completed, the program will have constructed about 200 kilometers of new or improved roads, 2000 linear meters of bridges and 1000 hectares of irrigation system, thus providing direct economic benefits to over 10,000 small farmers and their families.

The ultimate success of the PDAP program will be judged in terms of benefits delivered to the rural poor through province level development efforts. Two key indicators of this success will be the degree of acceptance of PDAP management and developmental techniques by the Department of Local Government and Community Development (DLGCD) and the subsequent adoptions by all provinces of the PDAP development planning, fiscal administration and management methodology. Significant strides have already been made in this area in regard to planning and fiscal administration. DLGCD has adopted the PDAP development procedures for provincial Capital Improvement Programs and action budgets. Through a series of training programs, DLGCD has successfully extended these procedures to all provinces and cities in the Philippines. It is anticipated that similar activities will take place during the next two to three year period particularly on activities related to infrastructure development and comprehensive planning. The DLGCD was created in late 1972. At that time the GOP determined that PDAP operations should be established on a more permanent basis by merger into the DLGCD after the Department had developed the necessary organization to fully carry out its mandate.

The continuing role planned for PDAP when merged into the DLGCD will be that of innovator and "model builder". It will continue to design, package and test systems and programs for local government. Agreement in principle between the DLGCD, PDAP and USAID has been reached which provides that PDAP will be integrated as a special unit within the Office of the Secretary of DLGCD. No definite time table or process for the actual merger has been established other than that it will occur during the time frame of FY 77-78. During the interim period, the DLGCD and PDAP are cooperating in a partnership under which the PDAP methodology, systems, programs and technical assistance, particularly in the field of training, are provided to the DLGCD for utilization and implementation at its option throughout the Philippines. The Executive Director, PDAP in his FY74 Report noted that "significant strides were attained in fostering a closer partnership with the Department of Local Government." An example of this growing partnership is the fact that nine DLGCD staff members have been assigned to PDAP for the purpose of transferring PDAP methodology and technology into DLGCD operations.

Future Effort

Rural development in the Philippines is directly related to the standard of living which can be achieved by the millions of rural poor families. The important role of the province in achieving meaningful results in this regard has been clearly demonstrated by the success of the PDAP Program. However, the institutionalizing of the PDAP approach is a major target yet to be fully accomplished. Beyond this, it is evident that the PDAP type approach must be extended downward to the municipal level to achieve even greater impact on resolving the problems faced by the rural poor. Conversely, coordination upward of provincial

programs and the proper allocation of national government resources should be achieved through an effective regional planning mechanism. The GOP has created regional planning councils which could develop into the instrument for performing this latter function.

PDAP has already initiated a Municipal Capital Improvement Program process that will ultimately have country-wide application as DLGCD can train municipal officials in the use of this development planning procedure. This simple development planning process will provide the opportunity for the barrio representatives to express felt needs for capital projects so they can be recorded in a systematic manner and made known to the authorities that have the responsibility and resources to react.

The Government of the Philippines has expressed interest in linking the local planning programs and activities on the Island of Panay to a model regional planning process. This type of approach would result in the best use of local resources to implement locally designed programs intended to respond to needs that have been identified by the people involved, especially the small farmers. The total process provides the opportunity for integrated area development in selected localities without requiring massive inputs of external technical assistance during the planning phase. On the other hand, the local governments will have the opportunity and the available technical personnel to identify and document capital projects that could attract assistance from external donors.

Improvement of the economic and social status of the rural poor is dependent, in part, upon the availability of all-weather roads needed for the reliable and economical movement of supplies to the farm and of produce from the farm to the market. The GOP is vigorously pursuing a program to upgrade and expand the nationally-administered road system which had a total length of over 20,000 kilometers in 1971. A large portion of this work is being and will likely continue to be financed with the assistance of foreign donors.

On the other hand, there is presently no comparable program for the systematic development of an adequate system of secondary roads. The bulk of construction for this level of road is handled by provincial governments or, to some degree, by the national government on an unsystematic basis with very little foreign assistance. The recently approved proposal to develop a rural road program for the construction of over 750 kms. of all-weather roads and 2,400 LMs of bridges in 22 provinces under a \$15 million USAID Development Loan is a notable exception representing a small but significant stride toward meeting the secondary road requirement of an expanding agriculture sector. In addition, the rural roads program will provide substantial employment opportunities and economic stimulation in the rural areas concerned.

As the planning and management capabilities of additional provinces are upgraded to the point where they can administer rural roads programs,

the rural roads program can be expanded to additional provinces. It is estimated that accomplishment of both the necessary improvements to the existing 53,000 kilometers of provincial and other locally-administered roads and the construction of additional penetration roads to areas of agriculture potential could generate a need for one and a half billion pesos during the next decade. This can be considered the minimum amount to adequately serve the expanding agriculture rural development programs of the Philippines. Foreign assistance will almost certainly be needed to finance these projects. The effective implementation of this type of program would assure that within a decade every barrio in the Philippines would be connected to the national road system by an all-weather road.

Perhaps as important as rural roads in assisting the rural poor is the very wide-spread requirement for improved management of land and water resources particularly small scale irrigation systems. It is generally recognized that in most areas of the Philippines, proper water resource management could nearly double rice production and significantly increase production of other food crops. At the present time less than 30% of rice lands are served by adequate irrigation systems. In many cases, the installation of the required system could be accomplished with a relatively small capital investment of P1,000-P2,000 per hectare; of course, whether already in place or new, the key to successful irrigation over time resides in careful operation and management of the system. This is an area the PDAP is already addressing on a pilot basis.

PDAP has already participated in the development of small scale pump irrigation systems under the Philippines Barrio Irrigation Services Association (BISA) program. Improved management systems for small scale irrigation projects will be developed and demonstrated under a \$3 million FY75 development loan. In the meantime, some P4 million has been programmed for other types of communal irrigation systems under the on-going Special Infrastructure Program (SIP). Based on the preliminary results of these programs, it is currently estimated that the PDAP irrigation concept working through local governments could be used to improve or construct small scale irrigation systems during the next decade that would cover 100,000 hectares while serving 40-50,000 small farmers families.

It is estimated that construction of these facilities would increase the annual palay crop by approximately 300,000 metric tons which at present prices would provide the small farmers with an additional annual gross income of approximately P300 million. In order to accomplish these goals, the required capital investment would be in the magnitude of P300-P400 million. Because of the existing commitments of local funds to the large scale irrigation systems that are being constructed by the national government, it is anticipated that foreign assistance will be required to provide funding in an amount of approximately P150-P200 million for the successful implementation of the necessary small scale irrigation

systems. Presumably these funds would be made available as concessional development loans.

The continued improvement of the PDAP approach could very well lead to expanded roles for local governments in filling voids between on-going national programs and the existing needs of the rural poor in the currently lower priority areas of the country that without such intervention are not likely to be reached by the national programs for an extended period of time. This role would be particularly important in the implementation of an integrated development approach in a number of relatively limited geographical areas outside the major river basins. Another potential local government function would involve the utilization of provincial engineering capabilities developed in PDAP to construct small scale or barrio potable water sources and distribution systems. It is within the present capability of the PDAP provinces to develop small water systems during the next 5-10 years that would serve nearly a half a million poor rural inhabitants that do not presently have adequate sources of potable water. To accomplish this goal, would require a capital investment of ₱75-125 million, a portion of which would have to be financed by external loans.

Expected Results and Beneficiaries

The continued improvement of the PDAP approach and the implementation of the two basic elements of infrastructure development, rural roads and small scale irrigation system, coordinated with rural electrification, rural water systems, manpower development and effective nutrition/family planning programs will produce significant progress toward a relatively self-maintained mechanism for balanced rural growth that can progressively expand throughout the Philippines under the guidance of the Department of Local Government and Community Development. These steps should insure that GOP and foreign donor inputs will produce agriculture sector gains that will result in the maximum economic and social advantages for the greatest number of small farmers and their families.

At the present time PDAP is operating in 23 provinces having a total rural population of over 9 million people which represents about one-third of the entire rural population of the Philippines. Review and analysis of the current impact of PDAP on the rural population indicates that over 3 million farmers or rural dwellers are benefiting from some aspect of the PDAP program as implemented through the Provincial or Local Governments. By FY 77-78 PDAP will cover at least 32 provinces representing more than half the total rural population of the Philippines. Given the anticipated impact of improved and continuous planning, programming and implementation by the PDAP provinces on the wide range of coordinated developmental activity as indicated above, it is expected that the PDAP beneficiaries, including a significant number of rural poor, will reach 10 million persons.

In addition, during the same period, the partnership of DLGCD and PDAP will likely result in another 10 million beneficiaries from PDAP methodology and technology being transferred to the rural areas through DLGCD-administered activities.

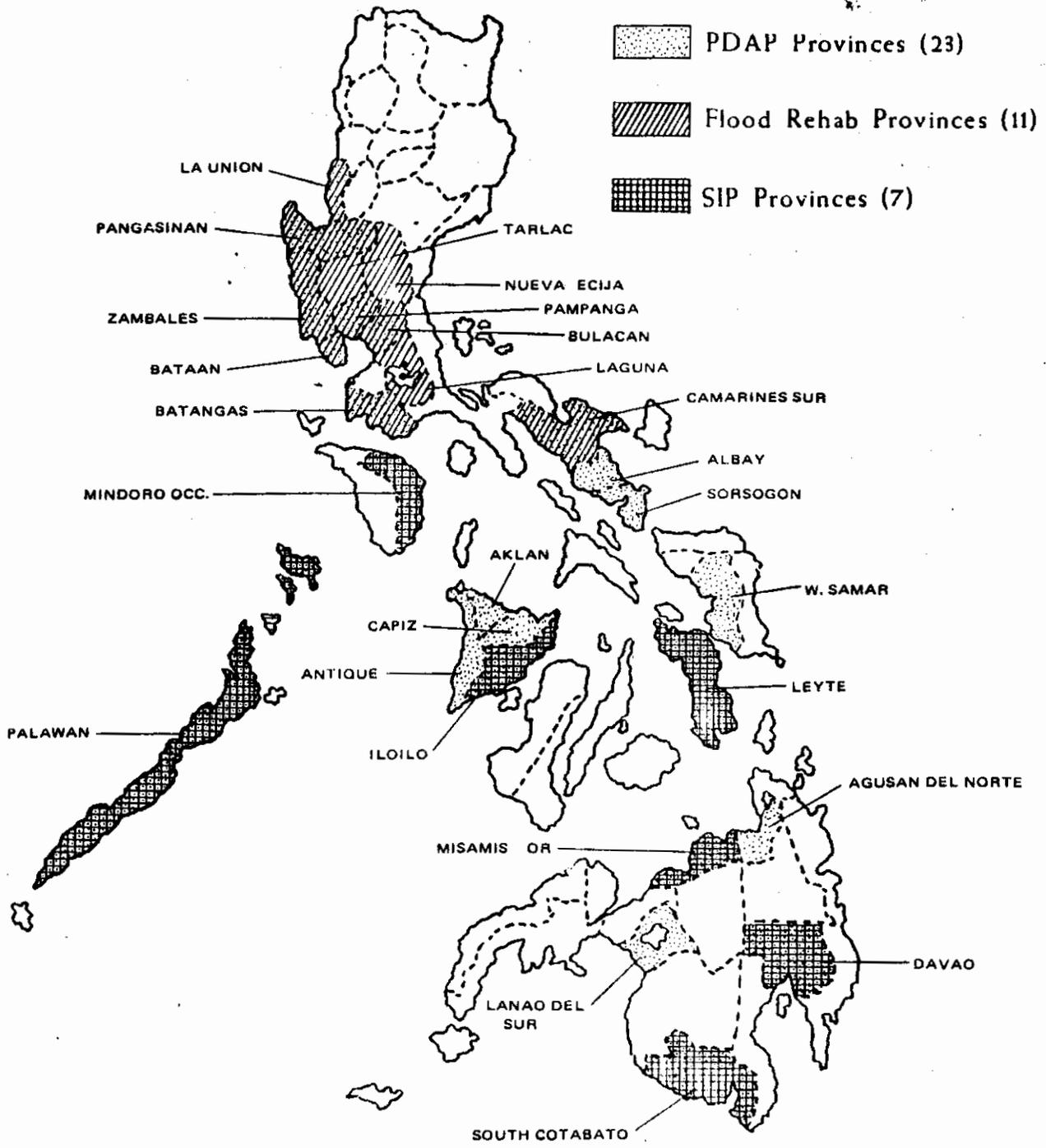
Summary of Future U.S. Role:

The successful implementation of the Local Development Program as outlined in the PROP will result in FY 78 in providing the DLGCD and PDAP with a capability of reaching the majority of the rural populace with basic developmental activities and programs designed and tested by the PDAP. The U.S. role in local development while focused upon the PDAP will gradually broaden to include other areas and activities within the DLGCD.

Instead of dealing primarily with the PDAP provinces, future AID inputs will be programmed for country wide application. Based upon specific programs which have been designed and tested under the PDAP, AID will provide funding for various types of major rural infrastructure projects targeted at the rural poor including rural roads, small scale irrigation and small potable water systems. Further, in conjunction with the above and with the evolution of the role of provincial and municipal developments staffs in planning, coordinating and implementing national programs at the local level including nutrition, family planning and agricultural production programs, it is anticipated that AID funding will cover a large number of small and medium integrated area development projects throughout the country. Finally, US inputs in local development will undoubtedly be required to further strengthen the administrative and management of DLGCD so that it can effectively function as the major vehicle for rural development.

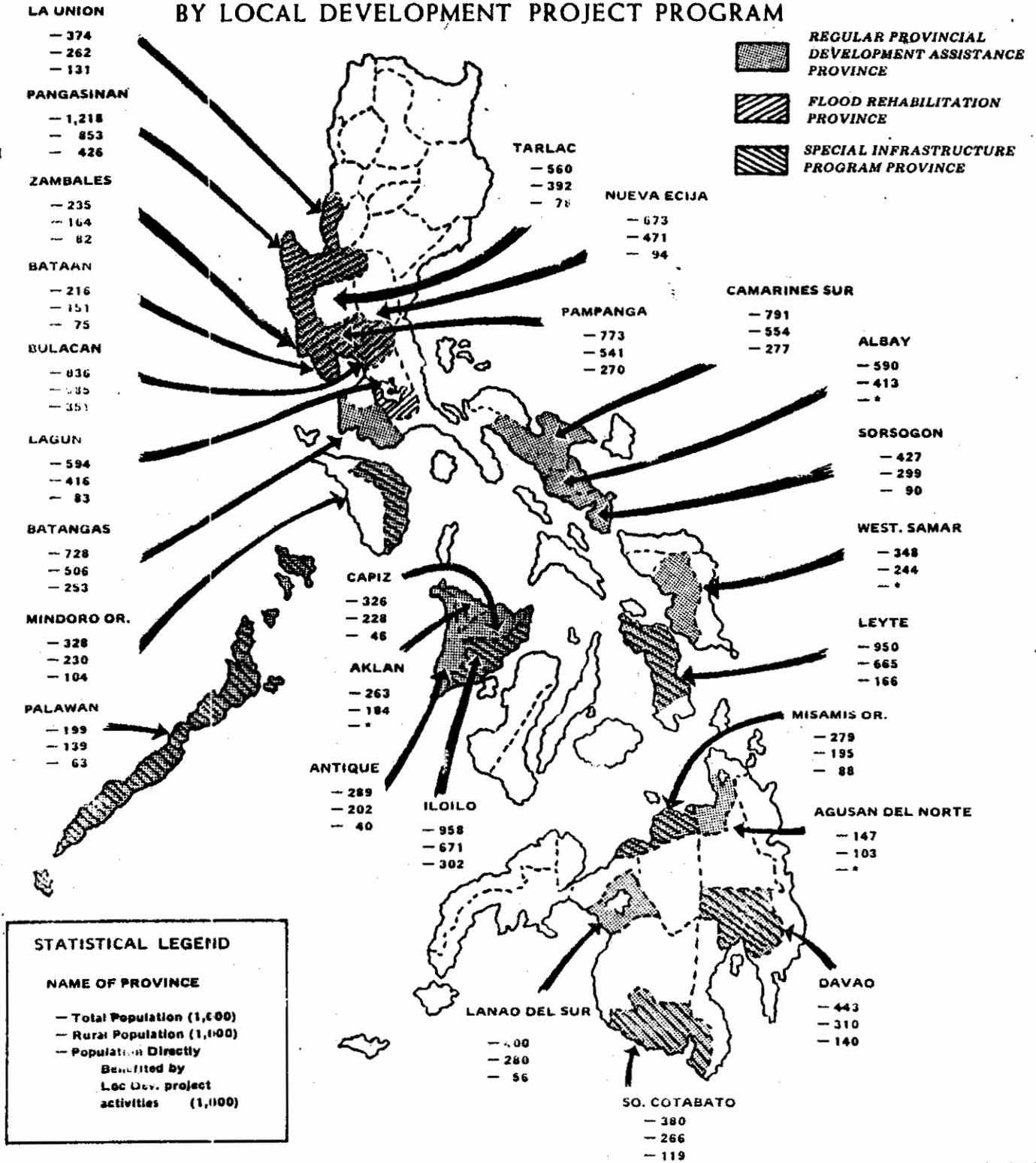
Map 1

PROVINCIAL DEVELOPMENT ASSISTANCE PROJECT



Map 2

LOCAL DEVELOPMENT PROJECT
 (Counterpart to GOP Provincial Development Assistance Project)
PROJECT COVERAGE AND RURAL POPULATION BENEFITTED
BY LOCAL DEVELOPMENT PROJECT PROGRAM



RURAL ELECTRIFICATION

Background

Of the Philippine population of 42 million, only 12.8 million, or 30% of the total population are served by electricity. Most of these people live in the Metro Manila and other urban areas in the country. The rest of the population (68%) reside in the rural areas, and most of them have yet to enjoy the benefits of electricity. It is this segment of the population that the Philippine government through the National Electrification Administration is committed to bring electricity to during the next 15-20 years.

The A.I.D. assisted national rural electrification program is an integral component of the Philippine Government's comprehensive strategy for rural development. This is clearly articulated in the GOP's most recent loan application letter requesting additional A.I.D. development loan assistance and in the Government's Rural Development Sector paper prepared for the December, 1974 meeting of the Consultative Group for the Philippines. The place of the rural electrification program in the Government's national development effort is enunciated in the Philippine Government "Four-Year Development Plan FY 1974-77" as follows:

"One of the top priority projects of the government is the total electrification of the whole country. In the rural areas, the aim is to provide the power needs essential to increase the productivity in both agriculture and industrial activities. This will be done by enhancing the benefits of irrigation and farm mechanization as well as by promoting the development of small and medium scale industries in the rural sector. Obviously, these programmed activities pre-suppose the availability of cheap and continuous electric power in these areas. Likewise, providing electricity for lighting and household appliances will also contribute to raising the welfare of the rural population in terms of conveniences and comfort relative to social development, particularly to education and health.

"Consequently, with the view that, ultimately, rural development is contingent on the availability of economical and reliable electric power, the present rural electrification program becomes basically important to the new agrarian reform program."

The Philippine rural electrification program is distinguished from rural electrification efforts in a number of developing countries (which essentially are based on extensions of operating profit motivated public utilities) in that it is national in scope, is using the cooperative as the vehicle for implementation and as in the parallel U.S. experience, relies heavily in the early years on highly concessional lending to establish firmly the cooperatives' financial viability.

Rural electrification has definite social as well as economic implications which are also important in the Philippine overall developmental strategy. For many decades the Philippines has been one of those areas of the world where the gap between the wealthy few and the multitude of the poor was highly visible. Narrowly held ownership of land and the facilities of production exacerbated the contrast and posed threats to stability and progress.

Formation of rural electric cooperatives is one of the steps being taken by the Philippine Government to reduce the socio-economic imbalance. Part of the successful amelioration comes from providing more job opportunities and higher income in the barrios and rural towns. Of great importance in the long run is the opportunity through successful member-owned electric cooperatives for rural people in low-income levels to own some portion of the economic structure. Accustomed to exploitation, thousands of people now -- and millions later -- learn the responsibilities and enjoy the benefits of shared services through local cooperative ownership and control. By participating in the electric cooperative, by learning to speak up at local meetings, by volunteering for committee assignments, by acquiring through their own initiative plus government assistance a taste of better living, more and more barrio folk will gain some measure of self-confidence and experience in practical rather than theoretical democracy. The effect on the political future may be as significant as the effect on the economy. ///

Extension of electricity per se to the rural areas is essential to the generation of increased non-agricultural employment opportunities. Increased employment and the higher income resulting from it will help to reduce the pressure of migration to Manila and other urban areas and thus lessen the exacerbation of urban, particularly squatter problems.

A.I.D.'s interest in rural electrification in the Philippines began with the funding of a Power Sector survey in 1965. Two pilot rural electrification projects recommended in that report were assisted by A.I.D. and completed in 1971.

In 1972 with the strong support of President Marcos, full scale rural electrification program was launched. Funding was made up of \$20 M in U.S. development loans for commodities and engineering services, \$30 M in Japanese Reparation goods, \$37 M in local currency partly supported by feed grain loans plus about \$6 M in excess property and grant funded technical assistance. A total of 36 cooperatives serving 2.4 million people was to benefit from this first significant effort. It later developed that the Japanese reparations commitment was reduced to \$7.5 M but the goal of 36 cooperatives was retained nevertheless when the Philippine Government pledged the necessary local currency for needed material.

Current Effort

In 1974 the second A.I.D. rural electrification loan of \$18 M was completed for the purchase of electrical materials and engineering services. A counterpart of \$16 M equivalent in local currency was pledged by the GOP thus expanding the joint U.S.-Philippine rural electrification program to include an additional group of cooperatives. It is estimated that about 10-15 systems can be constructed with the funding.

Authorization for the third rural electrification loan in the amount of \$20 M is anticipated in December 1974 and the Philippine Government again has pledged support with an additional \$16 M equivalent in local currency. About 10-15 more cooperatives will be assured by this action.

The total efforts to date therefore should result in the construction of up to 65 rural electric cooperative systems to provide electric service to a rural Philippine population of over 4 million people.

Complementing the AID-supported rural electrification distribution program, the World Bank has over the past several years funded power system expansion on Luzon and has recently completed arrangements for its sixth power loan for generation and certain transmission line extensions. Also in Luzon, Japanese funding currently is being arranged for geothermal generation at Tiwi and Cagayan Valley power facilities. The U.S. ExIm Bank and other donors are being canvassed for NPC's biggest effort, a 600 MW nuclear plant. In the Visayas, the GOP has recently contracted for French funded diesel generation to be placed at several strategic locations to supply the expanding needs of private and public electric utilities including the electric cooperatives. Finally, the Asian Development Bank has committed itself to support the generation and high voltage transmission needs of the Philippine second largest island and has announced its third power loan supporting hydro-electric generating facilities on Mindanao. Previous loans have funded extensive hydro-electric generation of the Agus river complex and several high voltage transmission lines.

Future Effort

The Philippine Government hopes to extend electric service to all rural areas during the next 20 years. Achievement of this target will require very substantial funding; while A.I.D. is not committed to such funding, the Mission proposes to continue its key role in bringing this rural development project to the point where it can be continued successfully by the Philippines using its own funds and whatever foreign loans might be available.

The NEA short term target (Phase I) is to complete at least one cooperative backbone system in each of the 72 Philippine provinces by 1982.

The total estimated funding requirements through 1982 for the Phase I program are \$237 million equivalent of which \$111 million represents the foreign exchange requirement. Upon completion of the Phase I program (funding thru FY 1977, physical completion FY 1982), NEA should be a technically viable and experienced institution, with competence in the areas of training, cooperative formation, feasibility studies, engineering, construction management, and finance and evaluation. The rural electric cooperative movement will have been sufficiently developed to maintain its own momentum thus warranting the phase-out of the A.I.D. technical and financial assistance. However, concessional lending on terms similar to A.I.D. bilateral loans and/or a large measure of direct government subsidy will continue to be required if the national goal of total electrification is to be achieved. This goal is the focus also of the multilateral program of power development in which IBRD and ADB ordinary loans are used for expansion of power generation and transmission systems. During the Phase I period (1971-1977) when A.I.D. will be directing its support for local power distribution via cooperatives, it is estimated that loan funding by the IBRD, ADB and other sources to National Power Corporation for power generation and transmission will total slightly over \$1 billion.

The foreign exchange requirement to meet the rapidly growing expansion of the Phase I backbone rural electric coop systems for nationwide coverage will require an estimated additional \$1.6 billion by 1994, exclusive of major generation and transmission needs. It is anticipated that beginning in about 1978 the Philippine government will turn to the IBRD and other international financing for their needs. Local costs to complete Phase I will be the dollar equivalent of \$120 million. Additional local costs to provide nationwide coverage by 1994 are estimated at the peso equivalent of \$1.3 billion.

Expected Results and Beneficiaries

The rural areas targeted under the GOP's long-term rural electric program include 12 of the 15 million persons in the Philippines falling within the lowest 40% income bracket. Since direct beneficiaries include farms, agro-industries and small-scale industries, indirect benefits in the form of improved and more economic services and increased employment opportunities will accrue to portions of the rural population not directly served by the electric systems either because they are outside the service area or are below the threshold income level for connection to the coop system.

By the end of 1974, 51 cooperatives were organized and loan agreements signed. Construction is taking place now on over 25 systems, and 29 are in an operating status. Over 160,000 cooperative members representing a population of over one million are now receiving electric service.

Based on the experience of the two pilot electrification projects and the 27 additional projects now in an operating status, it is estimated that between 80 and 95 percent of the population will be in a position to afford electric service soon after it is made available by a cooperative. Even though the income of many rural areas is low, perhaps averaging \$300 per household annually, experience has shown that Filipinos are willing to allocate a large portion of their cash income to electric service. Low cooperative electric rates coupled with the low requirement for cash outlay for food, clothing and shelter permit this low-income group to take advantage of the electric service. Although statistics on correlation between family income and cost of power have not yet been generated by NEA, indications of utilization in the home show that lighting is the most extensive home use, electric irons are the next priority use, then food preservation and finally home entertainment.

While the small farmer will also be a residential consumer of the coops, the main productive use of electricity currently programmed for farmer benefit is small electric pump irrigation. Companion programs are funding the necessary equipment, technical assistance, and training to bring about small farmer owned rice production through irrigation in the cooperative areas. Nineteen such projects are now operating or in the planning stage. Although only 993 hectares were actually served as of October 1, 1974, the proposed program under development includes 35,693 hectares to bring year round irrigation to 21,306 farm families or a farm population of approximately 128,000. Potentially over 500 small farmer irrigation projects (5-10 Horsepower) are viable in the service areas of the planned electric cooperatives and currently are under review as a possible joint USAID/Philippine development program.

NEA's power use division has directly initiated 12 small scale industrial cooperatives, of which five are currently operational employing over 2,000 workers. The IBRD is considering the provision of \$2.5 million to the GOP for support and expansion of this program as part of a \$30 million loan for dispersion of industry and small scale industry development. Numerous other applications are expected to develop spontaneously or with the assistance of the GOP's new small scale industry and agro-industry programs.

Each of these efforts, and other similar endeavors, will provide the basis for added employment and development in cooperative areas during the early period of operation. After a cooperative has been in operation for a period of 24-36 months the reliability of its service and ability to expand to meet new loads will have been proven and small industrial development should increase. In one of the pilot project areas, lumber mills, feed mills, a fish research unit, and similar small industry has emerged while three small municipal water systems have been installed using local funding. From only ten new industries surveyed, 290 jobs have been created within the coop area since energization of the electric system. Electric appliance and air conditioning purchases also have

been encouraged by the use of soft loans from the cooperative.

While much additional survey and evaluation work needs to be done to better demonstrate the detailed impact of electrification on the rural areas served, programs to assist the GOP in this objective are continuing and will be expanded under future AID assistance.

Summary of Future U.S. Role

The Mission proposes that A.I.D. continue the financial support of the rural electrification program through FY77 by providing a \$20 M development loan in both FY76 and FY77 and continue technical assistance through these years. By this time rural electrification should be well established in the Philippines. Future foreign exchange requirements will exceed the resources of A.I.D. It is expected the Philippines will in FY78 turn to the IBRD and perhaps other sources to permit expansion of its rural electric cooperatives. Foreign exchange needs will rise to some \$100 million annually in the 1980's if total rural electrification is to be achieved. IBRD financing at 8% interest and much shorter terms than A.I.D. will require a substantial GOP subsidy to assure viability of the cooperatives.

PHILIPPINE RURAL ELECTRIFICATION PROGRAM

OBLIGATIONS A.I.D. D.L. FUNDS

[actual and proposed]

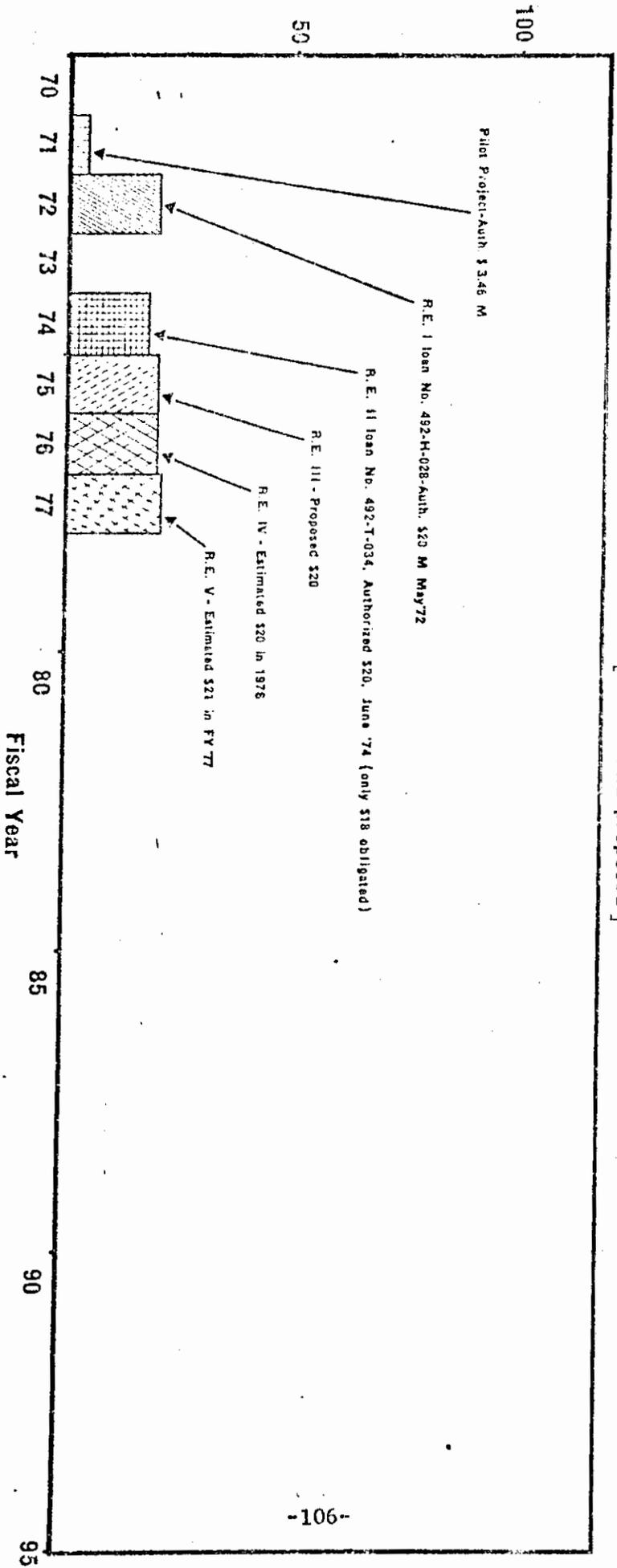


Figure 6

ANNUAL EXPENDITURES BY COOPERATIVES

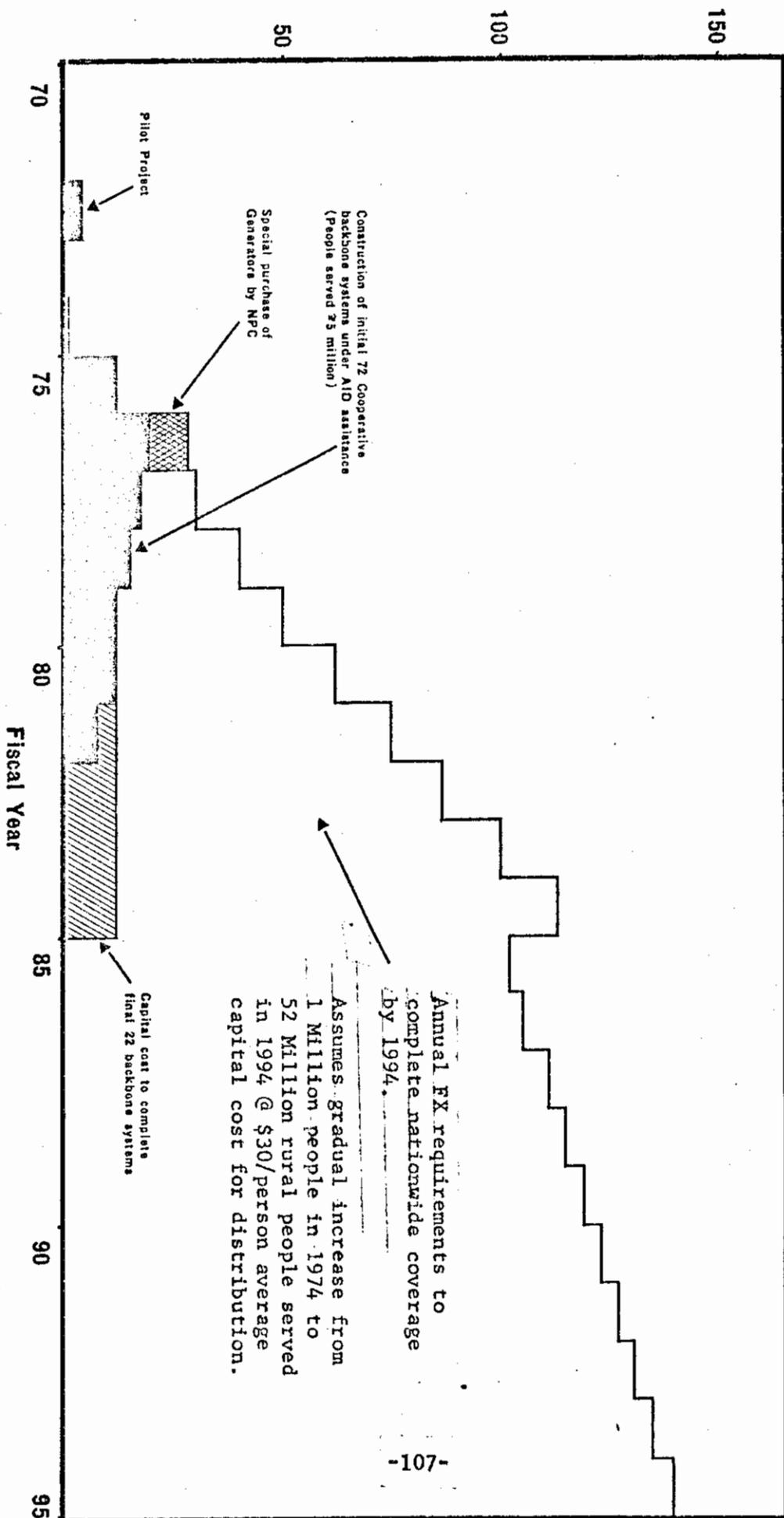


Figure 7

SMALL FARMER INCOME AND PRODUCTION

Background

The primary goal of agriculture in the Philippines is self-sufficiency in providing the necessary food for the country's growing population and in increasing agricultural exports to bring about needed foreign exchange. It is the first part of this determination to which the USAID-supported Small Farmer Project applies. The Philippine Government goal relating to the Small Farmer project is to achieve self-sufficiency in national rice and corn production with special emphasis on increasing the productivity of small-scale farmers and developing sources of farm income for these farmers through crop diversification.

In late 1972, the Philippine government, faced with a food crisis brought on by a series of national disasters, launched a nationwide intensive rice production campaign during the dry season of 1973. A significant aspect of this campaign involved supervised credit through the private rural banks financed by \$5 million in "seed" capital provided under USAID flood relief funds. Some 13,400 small-scale farmers were involved, and the government and the private sector demonstrated an ability to plan and implement a small-farmer non-collateral credit program. Based on this first effort, a greatly expanded campaign was planned and implemented for the major rice season of 1973 under the slogan "Masagana 99", inadequately translated to mean "bountiful harvest, 99 cavans (4.5 MT) per hectare." The supervised credit program made available 369 million pesos (\$53 million) to finance a proven package of technology for 404,000 small-scale rice farmers. Mobile banks utilizing jeeps, boats, and even helicopters, made credit available to the most remotely located farmers.

Current Effort

Out of this experience of Masagana 99 came the development of the basic outlines of the Small Farmer Project. In a broad sense, the project is designed to institutionalize and regularize the management of the nation's rice and corn crop production programs to reach the majority of the country's small-scale farmers. U. S. assistance to this program is coordinated through the National Food and Agriculture Council (NFAC). The successful experience with accelerated rice production under Masagana 99 is being adopted through other packages of technology and management systems to increase production of corn, sorghum and other crops.

The key elements to the Small Farmer Project are:

A. Management of Rice and Corn Production Programs. This includes the development of Management Information System (MIS) designed to gather selected data of crop production and related inputs at the farm level for processing at the national level by program managers. In this category, our

assistance also involves aid for small farmer credit and the development of full farm or multi-enterprise financing centered around rice and corn as the principal crops. The broad management area also covers economic analysis of the farmer and the support systems needed to sustain him. The concept of the project is to develop a data base and, more importantly, a data system which can be used, assessed, and updated, as appropriate, to react to the continuing need for increased agricultural production in the Philippines.

B. Research. This part of the Small Farmer Project is designed to improve the research capability of government programs relating primarily to rice and corn production. It will include two general types of research - one: applied on-farm, which is designed to develop an effective inter-agency program making recommendations to small farmers on varieties to be used, input levels, and management technologies. Essentially, this will cover on-farm trials, as, for example, tests on the deep placement of nitrogen for reducing the amount of fertilizer needed to obtain a given rice yield. A second aspect of research in this project is the test bed, which is a broader, multi-disciplinary type of experimentation covering a wide range of possibilities such as the question of: (1) whole farm credit financing; (2) the compatibility of different crops grown in rotation with rice and corn; (3) economic and social feasibility of alternative systems for purchasing, drying, storing, transporting, and pricing farm products.

C. Assessment/Strengthening of Small Farmer Production and Support Sub-Systems. Under this portion of the program, USAID is cooperating with NFAC in bringing in particular specialists to tackle specific obstacles or areas of concern in the rice and corn production fields. Consultancies are being provided or planned for fertilizer development, grain marketing and storage, and improvement of a corn production system. This has been a most important part of the project in the past and continues to be for the future. The availability of outstanding consultants from TVA has helped considerably in influencing fertilizer policy within the Philippines..

Future Efforts, Expected Results and Beneficiaries.

By 1978 the government expects to have its Masagana 99 program expanded to 1,403,000 number of farm families and to have a similar program applied to 407,000 number of corn families. Target family incomes of rice and corn farmers are expected to reach 2,350 and 2,150 pesos respectively by 1978. This compares with an estimated average farm income in 1973 of 1,500 and 1,120 pesos, or an increase of 57 and 92 percent respectively. The possibilities for expansion of production in the small farmer income areas are substantial. The prospects for introduction of new technology with high-yielding varieties; with better management practices; with prospects for increasing hectareage of irrigated land for cultivation; with expanding government non-collateral credit--all of these and other factors bring forth a promise of a greatly modified rural landscape through the Small Farmer and related projects being undertaken by the GOP. There is now

the beginnings of the type of fundamental revolution in peaceful terms that is needed in the Philippine countryside. Through construction of rural roads, through development of irrigation facilities, through Masagana 99, through better health and nutrition activities, etc., the government is now beginning to bring about a clear change in the traditional and almost feudalistic imbalance between the affluent in the city and the poor in the country. The USAID Small Farmer project is only a small portion of this, but it is a very important one and will continue to be so for the next few years in increasing the production of rice and corn. It is helping to establish a management information system, an analytical and communications framework which will make it easier for Philippine policy makers in NFAC and related organizations to handle both ordinary and crisis situations as related to basic food production. And the emphasis is on data that will be helpful and relevant to the small farmer who is the major rice and corn producer in the country. Alongside the emphasis on the highly important management system is an emphasis on research, of continuing to improve the technology that is being developed here in the Philippines, and to develop new approaches through the "test-bed" concept. There will be close cooperation with other interested bodies involved in this effort such as IRRI and the Philippine Council of Ag Research, to which we are proposing a loan of \$5 million. Finally, the present project of USAID continues the highly effective provision of short-term consultants to deal with specialized and particular problems of rice and corn production.

We expect our assistance to continue for the next four to five years until the main outlines of the Government's management and research programs in rice and corn have become institutionalized. There may be some modifications in emphasis such as greater stress on multiple and inter-cropping which increases production per given land area, increases total employment, and spreads risks over several different crops; planting over different times of the year; on new credit possibilities; and studies on marketing. The government may also wish to consider the possibility of development of an agro-business corporation to assist in increasing the availability of investment capital. Whatever these modifications, the basic direction of the project is clear--a program directed toward the rural poor, toward the one million small-scale rice and corn farmers, most of whom are presently tenants. If successful, it will bring about constantly improving stability of income.

Summary of Future U.S. Role

The U.S. intends to provide around \$500 thousand per year in grant funds for the next four to five years. We are considering the possibility of a development loan for the establishment of an agro-business development corporation. There are many related activities in provincial development, rural roads, rural electrification, Project Adam, rodent control activities, AID-financed work at IRRI, which have an important continuing relationship to the main thrust of the Small Farmer activity. We are attempting to give better and more effective coordination to all of these activities, each of which has an important inter-relationship with the other.

Figure 8

NATIONAL RICE AND CORN PRODUCTION

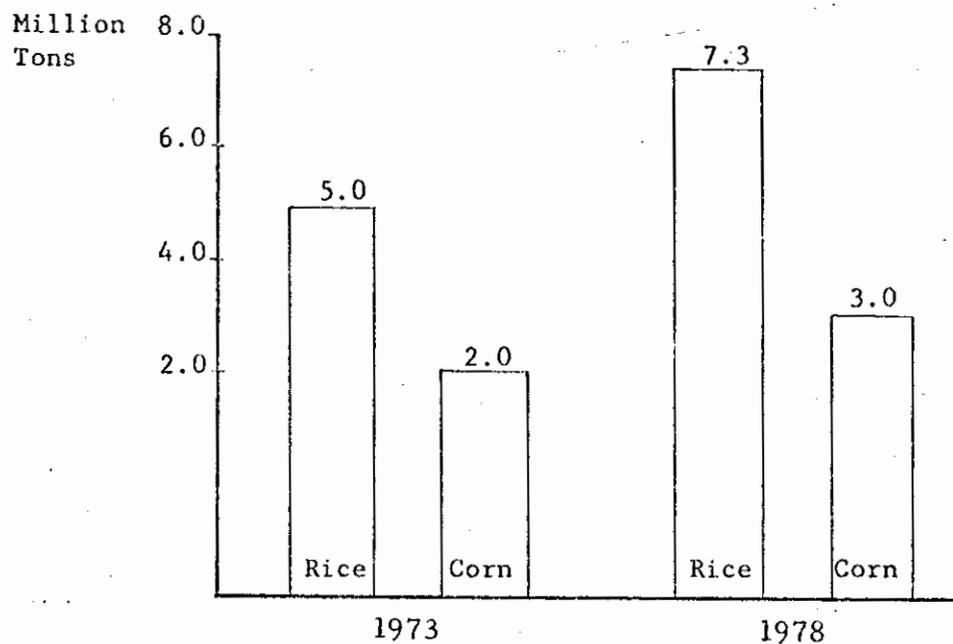


Figure 9

FAMILY INCOME -
ALL SMALL SCALE RICE AND CORN FARMERS

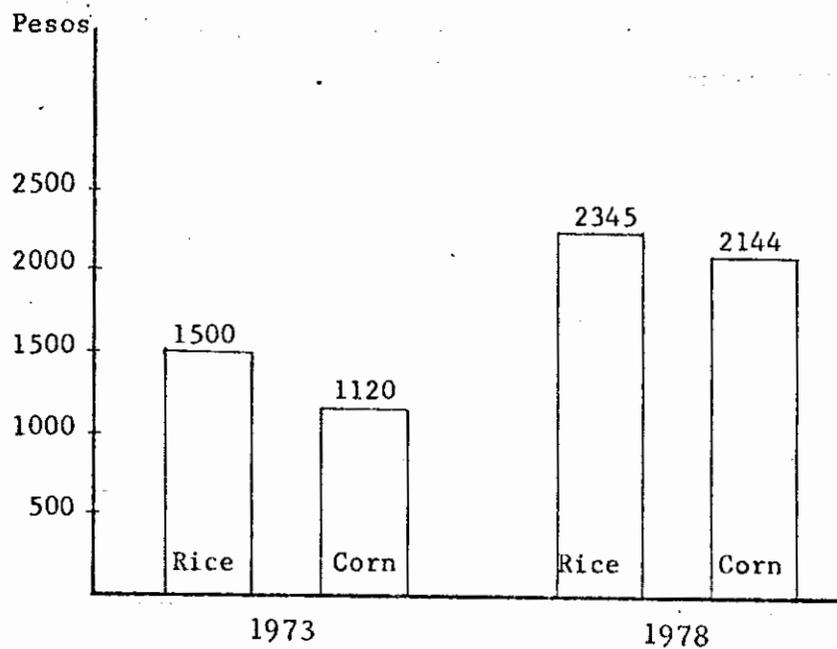


Figure 10

NUMBER OF SMALL FARMERS PARTICIPATING IN PRODUCTION PROGRAMS

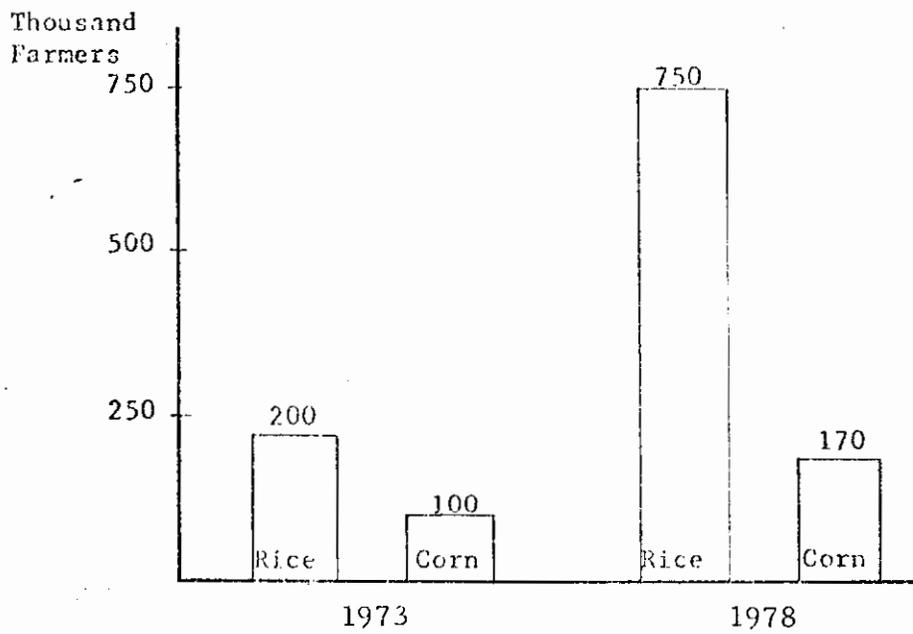
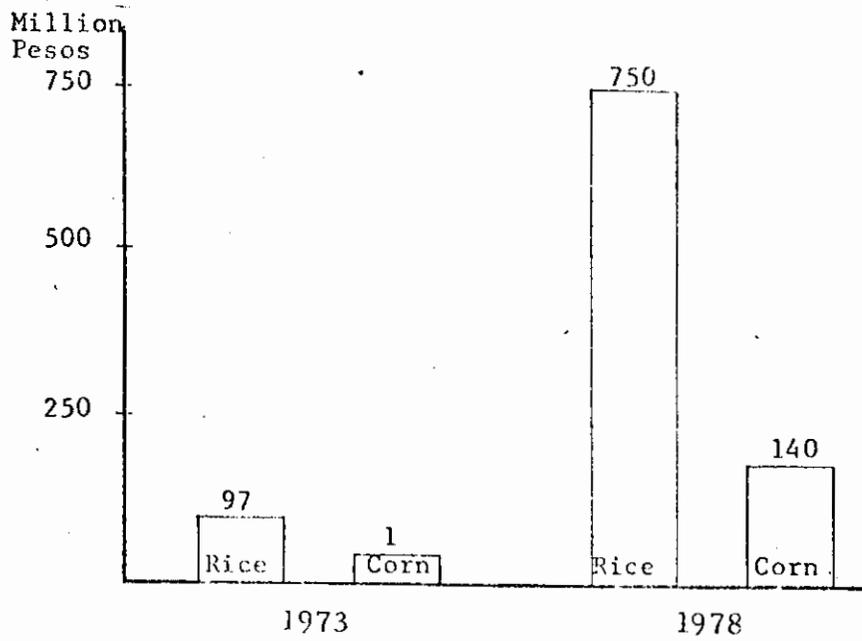


Figure 11

TOTAL AMOUNT OF INSTITUTIONAL CREDIT GIVEN TO PARTICIPATING FARMERS



AGRARIAN REFORM

Background

The first effort at land reform in the Philippines took place during the early colonial administration when friar-owned haciendas were purchased by the U.S. Government and redistributed to some 60 thousand tenant occupants. This undertaking largely failed. Farms reverted to ownership of private landlords because tenants fell into debt and were unable to maintain control over their lands. During the remainder of the colonial regime, efforts to promote homesteading and to provide agricultural credit did little to help, and in the Commonwealth period, legislation on crop sharing as well as land purchase and distribution accomplished little. Following independence, the U.S. Government first expressed a strong interest in land reform in the Philippines in 1950 when the Hardie and McMilland reports urged basic land reform. After Ramon Magsaysay became President in 1954, legislation was enacted which provided a Bill of Rights for tenants and established credit and cooperative institutions to support small farmers; landlord opposition and ineffective implementation, however, severely limited the impact of this legislation. After promulgation of the 1963 Land Reform Code, USAID agreed to support a new program whose principal goal was the conversion of share tenants to leasehold status. Subsequently when land reform did not receive sufficient GOP support, the Mission curtailed its assistance. By 1970 considerable experience with the problems of marketing, extension and land reform had accumulated, but no effective, comprehensive system had evolved to coordinate and fully utilize this knowledge. Consequently, the Philippine Government and USAID agreed to a pilot project in Nueva Ecija province intended to develop such a system. The purposes of this effort were to test ways to accelerate conversion of share tenants to leasehold and to develop a support system to assist leaseholders in achieving economic independence. Significant progress toward these purposes was achieved.

The most significant Philippine Government initiative was taken in October 1972 when President Marcos issued a decree to convert the tenants into owners of the land they cultivated. The decree provided the legal basis and set forth the principal features for the transfer of ownership of tenanted rice and corn land to the cultivator. Subject to certain size limitations, tenants are given the opportunity to purchase the land they cultivate. The cost is to be amortized over a 15-year period and the beneficiaries are required to join farmers' cooperatives which will guarantee payment. Compensation is provided to landlords in various forms of which the most important thus far has been 10% cash payment and 90% in Land Bank bonds bearing 6% interest.

Current Effort

Prior to 1973, support for agrarian reform was provided under a general agricultural technical assistance project. In August 1973, an independent agrarian reform project was established which includes support for land reform and cooperative development with additional assistance for farmer support systems being drawn from other projects. The level of funding for the agrarian reform project in FY 74 was about \$500,000 and is programmed at about the same level for FY 75. Approximately 80% of the FY 75 funds are for technical services with the balance being allocated to participant training and commodities.

The thrust of USAID support is directed toward improving the management and efficiency of land reform operations and strengthening the cooperative structure. With respect to land transfer, USAID has supplied technicians to assist in such areas as aerial photography, procedures analysis, computer systems, and management information. Other support has involved supply of photographic equipment, vehicles, and other commodities to improve administration of the reform. Also, training has been provided in the U.S. and third countries with a focus on technical aspects of the land reform. USAID has a full time cooperative systems advisor working in the two pilot areas (the provinces of Nueva Ecija and Camarines Sur) on linkages between farmer associations, marketing cooperative and central marketing operations. Short-term consultant support in cooperative marketing, management and educational curricula is also being provided.

The land reform program has been subject to a series of issues some of which are not yet resolved. Since the government has applied the program sequentially according to size of landlord holdings to a recently announced maximum retention level of 7 hectares, the changing scope of the reform has seriously complicated program planning, design and implementation. Another issue concerns compensation options. Although the government has announced a series of compensation options, only one has been applied in nearly all cases. The terms and conditions of the compensation process have been a factor in seriously hindering the prompt indemnification of landlords. Another basic issue concerns overall management of the land reform program. It tends to be a centralized operation which impedes rapid flow of documentation and incisive decision-making. Lastly, an important issue exists with respect to coordination of membership by land reform beneficiaries in farmer associations and organizations of the associations in localities where beneficiaries reside.

Future Effort

With the November 1974 decision to include another 200,000 rice and corn tenants cultivating some 350,000 hectares of land in the land reform by lowering the maximum retention limit to seven hectares, the existing levels of USAID support will be reassessed; current indications are that

additional technical and commodity assistance and training costing approximately one million dollars through 1977 will be required. A major component of this supplemental support would be directed at a special effort to complete essentially all land reform actions (transfer, compensation, farmer organization membership, leasehold conversion) in the two pilot provinces of Nueva Ecija and Camarines Sur at an accelerated pace. Further consideration will be given to other possibilities for assisting the GOP in improving program organization and management.

To have a comprehensive land tenure reform, USAID plans to assist the GOP develop and pilot test an effective leasehold system for those tenants ineligible to purchase lands under the transfer program, i.e., tenants on rice lands 7 hectares and below and those cultivating other crops. Other directly related areas that will be considered for support under land reform include (a) development of a land registry system which will help insure long term security of tenure and an effective recording process; (b) land consolidation on a test-bed basis; (c) development of improved capability for land use and resource planning, and (d) development of a viable land settlement prototype.

With respect to cooperative development, USAID support over the next several years will continue to concentrate on strengthening institutions that relate to small farmer organizations. There will be a shift toward assisting the cooperative supply and marketing network that is linked to barrio farmer associations. Providing the forthcoming feasibility study determines a need, consideration will be given for a development loan of up to \$20 million to install cooperative grain storage, handling and processing facilities. Necessary training, technical and commodity assistance would also be provided.

Beyond the current land transfer operation, there will be a long range requirement for agrarian reform research. As government policy and programs evolve in areas such as land development, land planning and use, rural labor, non-rice and corn agricultural land, income distribution and production, a flow of research information and evaluations will be necessary. There is a grossly inadequate data base for providing guidance and making decisions on these topics. To help satisfy this need for expanded and improved information, USAID will examine the possibility of supporting a long-term sister-institutional relationship between the University of Wisconsin Land Tenure Center and the Philippines Agrarian Reform Institute (ARI). Such support would be aimed at upgrading the ARI program to make its research and training roles more relevant to GOP development efforts. The support may consist of up to \$2 million over a six year period.

Expected Results and Beneficiaries

The total agrarian reform effort is aimed at the small farmer population. Regarding land reform beneficiaries, nearly 500,000 tenant families now tilling an average of 1.8 hectares will have the opportunity to become owners of the land they are cultivating. The balance of rice and corn tenant farmers (an estimated 500,000) and other tenants will be provided strengthened leasehold arrangements which govern landlord-tenant relationships. In terms of income, most of the million rice and corn tenants probably belong to the bottom 40 percent of rural society whose annual average family income is about \$150.

Land reform beneficiaries will become members of farmer organizations tied into the cooperative movement. As such, they will directly influence and participate in the institutional supply and marketing structure of the country. As farmer organizations obtain increasing equity in the rural banking system, there should be reduced dependency by the membership on government and outside credit sources of production credit needs. Total farm organization membership is targeted at one million small farmers.

Agrarian reform will assist in shifting the socio-economic balance of the agrarian structure toward the small farmers. This should be accomplished by dispersion of land ownership, increased shares of production going to the farmer himself, greater security of land tenure, and organized farmer involvement in the means of credit, resource supplies and marketing.

The development of the Agrarian Reform Institute as a training and research institution for providing the government with better prepared personnel and a much broader data base from which to make policy and program decisions should benefit a range of agrarian reform efforts aimed at small farmers. Not only would the ARI serve as a repository of knowledge in this subject area, but it likely will be the source to which the government looks for competent agrarian reform program management.

Summary of Future U.S. Role

The U.S. role in agrarian reform can be visualized in two parts -- short term - assistance over the next 3 to 4 years - and longer term.

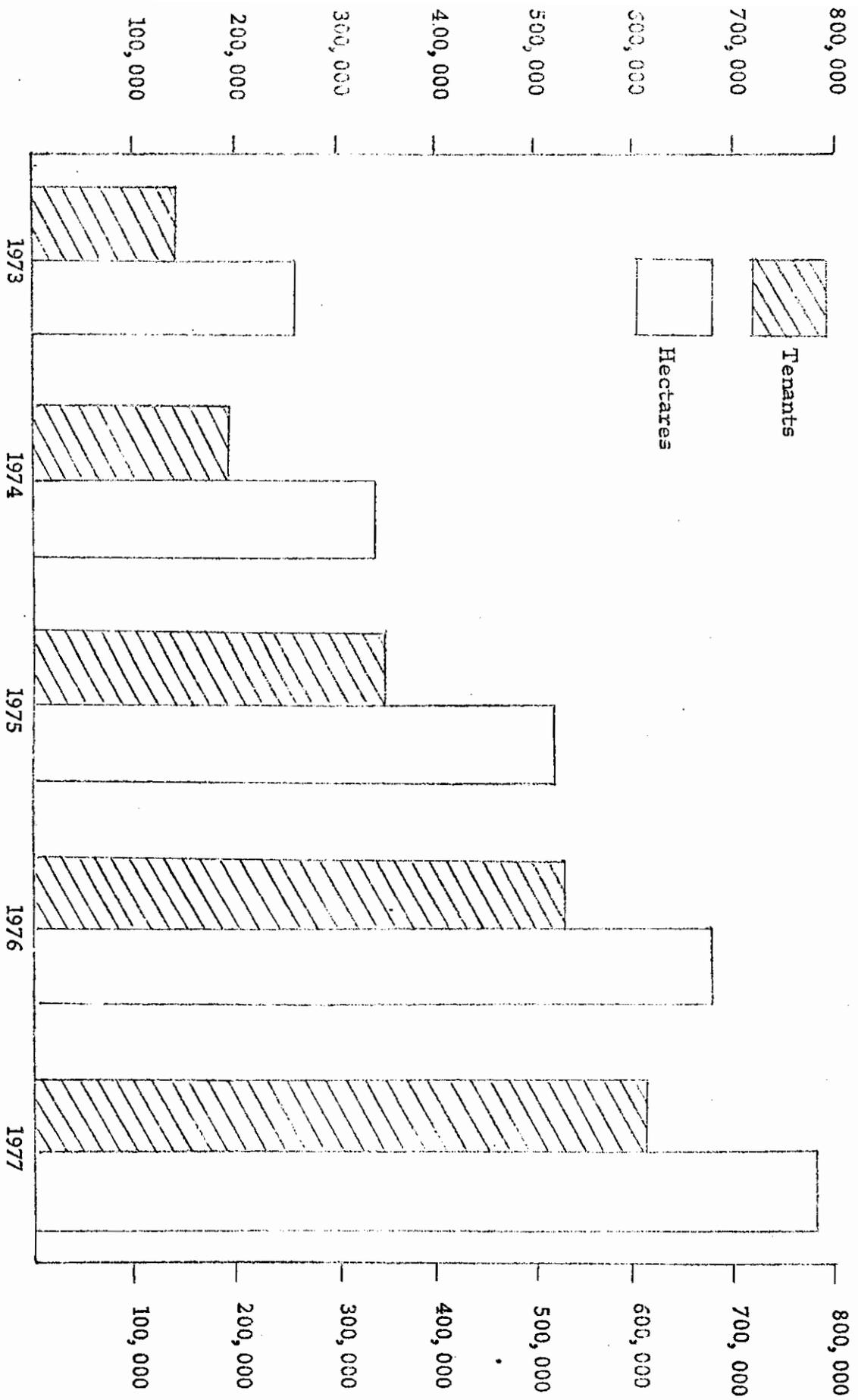
The short term support would continue to concentrate on current land reform and cooperative development with some additional input to development of research capability. GOP plans a special effort in two pilot provinces, Nueva Ecija and Camarines Sur, and USAID proposes to support this effort. The aim in these two provinces is to speed up land transfer and in the process demonstrate how the job can and should be done for a nationwide land reform program down to the 7-hectare level. This will require an approximate doubling of AID's technical assistance

program in FY75 and FY76 to about \$1 million in each year. This short-term assistance would also involve preparatory work for and initiation of inputs to a cooperative marketing system and to strengthening the Agrarian Reform Institute (ARI).

The longer range support might include a development loan (possibly \$20 million) for cooperative marketing, institutional support for ARI (possibly \$2 million) and other grant assistance for pilot efforts in agrarian reform related areas described above (possibly \$4 million).

FIGURE 12

SCOPE OF LAND OWNERSHIP TRANSFER PROGRAM *



*Cumulative status and projected performance based on Certificates of Land Transfer issued by the National Computer Center.

BICOL RIVER BASIN DEVELOPMENT

Background

Rural development has been an articulated goal of the Philippine Government throughout the 1960s and into the 1970s. In terms of numbers of people, the problem of poverty in the Philippines is overwhelmingly a rural one. Since the end of the 1960s, the Government has recognized the need to modify traditional economic development strategies in order to reduce widespread economic dualism and improve standards of living with particular reference to the rural regions of the country. The substantive development strategy of the Government that has evolved is premised on implementation of a strong rural development program using a variety of approaches and techniques including increased investment in basic and provincial oriented infrastructure.

The Government is also pursuing a policy of decentralization of authority and responsibility for the identification, design and implementation of rural development programs to increase efficiency and broaden the participation of local governments and regional offices of national government. Accordingly, Regional Development Councils have been organized in all 11 regions of the country to coordinate national and local development programs. The high priority attached to the USAID supported Provincial Development Assistance Project, one of whose objectives is to strengthen the planning and management capabilities of Provincial governments, and the decision of the national government to have Provincial Governors assume overall provincial responsibility for implementation of the Masagana 99 rice production program, are further indicators of the GOP's intent in these matters.

The Government is also testing the possibilities of integrated area programs as a major instrument for accelerating rural improvement. The extent to which the Government will pursue this approach, with its need for relatively heavy application of resources in limited geographical areas with limited population, is uncertain at present. However, it is clear that the GOP is committed to the idea of testing the approach on a selective area basis, e.g. in provinces or river basins where incremental investments in infrastructure and services are expected to yield significant economic and social benefits and which can in turn serve as important growth poles in stimulating broader regional development. The Bicol River Basin is one of the areas selected for trying this approach.

The Bicol River Basin Development Program is innovative in several respects. First, a comprehensive systems approach to planning and management has been adopted which integrates physical infrastructure requirements (e.g. irrigation, flood control and transport) with social and economic requirements for rural development (e.g. land reform and development of farmer support systems). As a consequence the Program is

multi-discipline and multi-sectoral effort encompassing such diverse sectors as water resources, transportation, agribusiness, crops, live-stock, fisheries, agricultural credit, agrarian reform, health and nutrition. The Program is specifically targeted on a major sub-region of the country with high growth potential, the 312,000 hectare Bicol River Basin. Finally, the objective of the program is concerned with real increases in per capita income among the Basin population, with particular reference to lower income groups.

The Bicol program is the product of an interagency effort prepared under the leadership of the secretaries of the departments of Public Works and Agriculture. The selection of the Bicol River Basin watershed area for development is explained in large part by the coincidence of a rich agricultural base and a progressive farm community, on the one hand, and problems of high tenancy, periodic flooding and deficient infrastructure on the other. The basin lies in one of the nation's key agriculture areas and is one of the priority areas covered by the Government's land reform program. The Bicol Program has been incorporated into the national four-year (FY 74-77) development plan as the Government's initial pilot effort in integrated area development.

Beyond the general concept of integrated area development, the Bicol River Basin Program represents a specific form of area development -- the river basin model -- which may be particularly well suited as a development mechanism given the physical realities of the Philippine rural sector. In the Philippines, subregional programs focused on the major river basin watershed areas could yield substantial economic as well as social benefits, consistent with the Government's dual objectives of growth and welfare. Within the context of Philippine agriculture, the nation's seven major river basins constitute the majority of rich accessible and potential irrigable lands; the river basins account for production of more than half of the nation's principal food staples -- rice and corn. In social terms, the majority of small rice and corn farmers to be benefited from tenure improvement as a result of the Government's land reform program live within the nation's complex of river basins.

As an illustrative case the Camarines Sur portion of the Bicol River Basin (the area selected for the first phase of the Basin Program), contains 65,000 hectares of the 80,000 hectares that are potentially irrigable within the province. In addition, 85% of the identified rice and corn share tenants in Camarines Sur live within the watershed area of the Basin. The River Basin, on the other hand occupies 38% of the land area within the province.

Current Effort

USAID support to the Bicol River Basin Development Program is designed to assist the Government:

(a) to create the organizational framework and institutional capability for carrying out an integrated, multi-sectoral area development program with the Bicol River Basin as the geographic management unit. USAID support for this objective involves technical consultancy in systems engineering and planning, overseas and on-the-job training and modest commodity support.

(b) to establish data and feasibility base in key substantive areas of the development program. This support will involve a range of specialized technical services from hydrology and on-farm water management to agribusiness as well as on-the-job and overseas training for the Program's personnel. USAID support in this area is aimed at assisting in the preparation of specific programs and projects and supporting technical and feasibility appraisals.

After almost two years of operation the Bicol program has achieved direction and momentum. It is estimated that by the end of FY76 the institutional structure of the program will have been stabilized. Project development work is underway in all major sectors; the feasibility phase of the program should be essentially complete by the end of FY77. Major capital investment in Basin projects could commence as early as late FY75 and is expected to continue at an increasing rate for several years.

Future Effort

In the short-term, there is a clear distinction between the Government's Bicol River Basin Development Program and the USAID assisted Bicol River Basin Project. The objectives of the USAID assistance project are more limited than the scope of the Bicol Program. As noted above the USAID objectives are to create a viable organizational structure and capability for planning and managing the Bicol River Program; and to have demonstrated by a series of studies, feasibility reports and pilot projects, the essential soundness of the integrated area development concept and the benefits which could accrue from basinwide implementation of the various component activities over the long term.

The Government Program on the other hand, is longer-term and seeks to measurably increase income of residents in the Bicol River Basin's watershed through successful implementation of an integrated area development scheme. Given the long gestation period required to move large scale programs with basinwide scope from feasibility to full operation, expectations are that it will take the Government upwards of ten years to complete the development process and realize the anticipated benefits of the Program.

It is expected that over the longer term following completion of USAID assisted feasibility appraisals, development loans from USAID and other donors will be made to assist the GOP in obtaining the Program objectives. Given the pipeline of projects now being developed with USAID

grant and feasibility loan assistance a multi-year program of capital financing by USAID and other donors will be required in the following areas if the GOP Program objectives are to be achieved:

- water resources (flood control and irrigation)
- secondary and feeder roads
- agribusiness (including cooperatives)
- land consolidation
- agricultural education

Beyond the programmed grant and proposed capital assistance to the Bicol Program, USAID is considering the possibility of involvement in other integrated area development programs. Basic pre-conditions to such involvement will be the continued progress of the Bicol River Basin Development Program and a clear policy decision on the part of the Government to expand the integrated area development (IAD) concept to other regions of the country. USAID support to other IAD projects could follow the same two phase approach now being used in the Bicol - a feasibility and institutional development phase followed by a multi-year capital assistance phase. USAID assistance to an expanded integrated area development program support the total institutional and feasibility appraisal phase of three or four regionally dispersed IAD programs or alternatively could support selected components (with other donors supporting the remaining components) of 6 to 10 IAD programs located in all major regions of the country. Further elaboration of either of these strategies is dependent on a clear GOP determination of the role of IAD programs in the country's overall rural and agricultural development strategy.

Expected Results and Beneficiaries

One million of the approximately three million residents of the Bicol region live and work within the watershed defined by the Bicol River Basin. Extrapolating from available 1971 regional population distribution and income data, approximately half of the one million residents of the Bicol River Basin belonged to families whose annual incomes were below \$300. This median income of \$300 was only one third of that for the country's richest region - metropolitan Manila.

Seen another way, there are approximately 41,000 rice and corn share-tenant families (average family size = 7) within the River Basin tilling an average of 1.3 hectares each, compared with the national average of 1.8 hectares per tenanted farm. Presidential Decree #27 defines the "economic" family size farm as three hectares of irrigated land or five hectares of non-irrigated arable land. In the Bicol River Basin less than 20,000 hectares of the 100,000 hectares of potentially irrigable land is served with year round irrigation. The majority of rice and corn tenant farmers are tilling rainfed farms approximately 1/4 the size of the "economic"

family size non-irrigated farm as defined by P.D. 27. This circumstance helps to explain why over 300,000 people migrated from the Bicol region between 1960 and 1970, mainly to Manila and Mindanao. In fact, of all the regions in the country only the Eastern and Western Visayas had a higher rate of out migration than the Bicol.

At its current rate of increase, the population in the Bicol River Basin is expected to expand from the present level of 1 million to 1.5 million by 1995. It is to this existing and anticipated population that Bicol River Basin program is addressed. While it is now possible to identify beneficiaries of several Basin programs, particularly those families to be benefited by implementation of the secondary and feeder road program, the land reform program and the compact farm program, it is impossible to clearly identify the total population to be benefited by overall implementation of the integrated program and the extent to which socio-economic standards of the average River Basin family will be improved as a result of the implementation of the overall, multi-sectoral program. This information will be available by FY77 upon completion of the feasibility phase of the program.

A unique feature of the River Basin Program is the existence of what is known as the Social Survey Research Unit (SSRU). This survey research group attached to the Bicol River Basin Program Office and funded in part by AID has conducted an initial baseline panel survey of 3,500 families in the Basin. The plan is for the SSRU to return at two year intervals to this "survey panel" in order to assess the impact of the Basin program overtime in terms of income, employment, production and perceived quality of life of Basin residents.

Summary of Future U.S. Role

As seen in late 1974 the Bicol River Basin Program and the concept of integrated area development which it embodies, could develop into a major program for reaching the rural poor not only in the Bicol region but in other similarly depressed and high potential regions of the Philippines. Progress to date in the Bicol has been encouraging; a pipeline of capital projects aimed at increasing the income of the Basin's rural poor is now in preparation. USAID expects to extend loans to the government in support of the Basin Program over the next few years. If the Government decides to institute additional integrated area development programs, USAID may wish and be asked to assist. In the event that the GOP decides to move into an extensive IAD program USAID support to this program could become one of the Mission's major programs both in terms of grant and loan assistance in the late seventies and early 1980s.

Table 8
Bicol River Basin Development Project
Economic Analysis
(P000)
Costs

Year	LAND REFORM		C O M P A C T		F A R M S		IRRIGATION		RIVER CONTROL		R O A D S		
	Invest-ment	O&M	Invest-ment	O&M	Production	Storage Hand-ling	Cost	Invest-ment	O&M	Invest-ment	O&M	Invest-ment	O&M
1973	1,791	659	216	269	2,712	58	3,564	9,270	11,831	-	-	11,831	-
1974	158	659	761	466	10,465	207	2,227	283	8,460	-	-	33,551	38
1975	158	659	563	635	19,138	328	5,915	566	8,580	-	-	30,980	212
1976	158	659	675	672	26,815	498	5,915	1,299	6,000	-	-	13,743	532
1977	158	659	603	741	31,419	569	5,915	2,032	-	240	240	13,744	1,195
1978	158	659	846	783	36,434	645	-	2,767	-	240	240	-	1,860
1979	-	-	-	783	36,424	645	-	2,767	-	240	240	-	1,860
1980	-	-	-	783	36,424	645	-	2,767	-	240	240	-	1,860
1981	-	-	-	783	36,424	645	-	2,767	-	240	240	-	1,860
1982	-	-	-	783	36,424	645	-	2,767	-	240	240	-	1,860
1983	-	-	-	783	36,424	645	-	2,767	-	240	240	-	1,860
1984	-	-	-	783	36,424	645	-	2,767	-	240	240	-	1,860
1985	-	-	-	783	36,424	645	-	2,767	-	240	240	-	1,860
	2,581	3,954	3,664	9,047	381,951	6,820	23,536	26,316	32,310	2,160	103,849	16,857	
	TOTAL UNDISCOUNTED COST												
Year	Invest-ment	O&M	Invest-ment	O&M	Authority-Overhead	Invest-ment	O&M, etc.	Total	Present Value of Costs*				
1973	4,811	1,152	226	-	7,002	31,709	11,852	43,561	37,898				
1974	850	5,017	1,312	9	3,156	47,319	20,300	67,619	51,119				
1975	2,472	12,352	1,123	332	2,755	49,791	36,977	86,768	57,093				
1976	367	15,246	1,483	580	3,121	28,341	49,422	77,763	44,480				
1977	142	18,283	2,023	895	2,367	22,585	58,400	80,985	40,249				
1978	-	18,283	2,023	1,237	1,504	3,027	64,402	67,429	29,029				
1979	-	18,283	-	1,237	1,097	-	63,336	63,336	23,814				
1980	-	18,283	-	1,237	1,097	-	63,336	63,336	20,711				
1981	-	18,283	-	1,237	1,097	-	63,336	63,336	17,987				
1982	-	18,283	-	1,237	1,097	-	63,336	63,336	15,644				
1983	-	18,283	-	1,237	1,097	-	63,336	63,336	13,617				
1984	-	18,283	-	1,237	1,097	-	63,336	63,336	11,844				
1985	-	18,283	-	1,237	1,097	-	63,336	63,336	10,324				
	8,642	198,314	8,190	11,712	27,584	182,772	684,705	867,477	333,777				

SOURCE: Bicol River Basin Development Program. Prepared by a GOP Interagency Committee, February 1973.

Continuation - Table 8
Bicol River Basin Development Project
Economic Analysis
(P000)

Benefits

Year	Incremental Farm		Prevented Flood		Savings to Diverted		Savings to PNR		Incremental Production with	
	Production	Damages	Damages	BPH Traffic	BPH Traffic	Traffic	Traffic	Quirino Highway	Quirino Highway	Quirino Highway
1973	7,609	-	-	-	-	-	-	-	-	-
1974	27,286	-	-	-	-	-	-	-	-	-
1975	43,221	-	-	-	-	-	-	-	-	-
1976	65,456	4,400	4,722	4,722	2,462	2,462	380	380	380	
1977	74,822	4,598	5,053	5,053	2,634	2,634	380	380	380	
1978	84,925	4,805	5,406	5,406	2,819	2,819	380	380	380	
1979	84,925	5,021	5,785	5,785	3,016	3,016	380	380	380	
1980	84,925	5,247	6,190	6,190	3,228	3,228	380	380	380	
1981	84,925	5,483	6,625	6,625	3,454	3,454	380	380	380	
1982	84,925	5,730	7,088	7,088	3,695	3,695	380	380	380	
1983	84,925	5,988	7,584	7,584	3,954	3,954	720	720	720	
1984	84,925	6,257	8,112	8,112	4,230	4,230	720	720	720	
1985	84,925	6,539	8,579	8,579	4,525	4,525	720	720	720	
	897,794	54,068	65,144	65,144	34,017	34,017	4,820	4,820	4,820	

Year	Savings in Traffic		Incremental Live-		Incremental Fish		Total Undiscounted		Present Value of*	
	Cost From Road Rehab.	stock Production	Production	Production	Production	Production	Benefits	Benefits	Benefits	Benefits
1973	-	1,484	22	22	9,115	9,115	7,930	7,930	7,930	7,930
1974	307	7,922	206	206	35,721	35,721	27,005	27,005	27,005	27,005
1975	613	22,511	946	946	67,291	67,291	44,277	44,277	44,277	44,277
1976	656	29,525	2,120	2,120	109,721	109,721	62,760	62,760	62,760	62,760
1977	702	34,347	3,422	3,422	125,958	125,958	62,601	62,601	62,601	62,601
1978	751	34,347	4,723	4,723	138,156	138,156	59,683	59,683	59,683	59,683
1979	803	34,347	4,723	4,723	139,000	139,000	52,264	52,264	52,264	52,264
1980	859	34,347	4,723	4,723	139,899	139,899	45,747	45,747	45,747	45,747
1981	919	34,347	4,723	4,723	140,856	140,856	40,003	40,003	40,003	40,003
1982	983	34,347	4,723	4,723	141,871	141,871	35,042	35,042	35,042	35,042
1983	1,052	34,347	4,723	4,723	143,293	143,293	30,808	30,808	30,808	30,808
1984	1,126	34,347	4,723	4,723	144,440	144,440	27,010	27,010	27,010	27,010
1985	1,205	34,347	4,723	4,723	145,563	145,563	23,727	23,727	23,727	23,727
	9,976	370,565	44,500	44,500	1,380,884	1,380,884	518,857	518,857	518,857	518,857

* At 15% discount rate: Estimated benefit-cost ratio - 1.6.

AGRICULTURE RESEARCH LOAN

Background

Aware of the need for a better research capability to support the agricultural sector, President Marcos in February 1971, created an executive panel to "Develop a National Agricultural Research Systems." This panel composed of high level individuals from various branches of government and universities, immediately undertook an exhaustive study of the research system - physical facilities, equipment, manpower, financing, programs and projects. At the same time, study of the research systems of other countries was undertaken by members of the panel.

The Ford Foundation, the Agriculture Development Council and AID provided financial support for the work of the panel as well as help in analyzing the panel's findings and in developing recommendations through the services of high level consultants.

The findings and recommendations of the panel were presented in 6 volumes between 1971 and late 1972. Among the more significant findings were: (1) Although substantial funds was being allocated by government for agricultural research, the useful research output was limited and was having little impact on the agriculture sector; and (2) There was little or no planning and coordination at the national level. Research projects and programs were not necessarily related to national goals or to plans for agricultural development.

Against the background of findings, the technical panel recommended that a special body, the Philippine Council for Agricultural Research (PCAR), be established to give direction and to coordinate research activities of government agencies and agricultural colleges and universities. This body, created by Presidential decree on November 10, 1972, is an autonomous body administratively placed in the Department of Agriculture, but responsible to a governing council chaired by the Chairman of the National Science Development Board and with high level representatives from the Department of Agriculture (the Secretary of Agriculture serves as Vice Chairman), the National Economic and Development Authority, the Budget Bureau, the Association of Colleges of Agriculture, the University of the Philippines and the private sector.

Current Effort

During an existence of slightly over 18 months, PCAR has established an impressive record of accomplishments and has emerged as an important GOP instrument for providing direction, affecting coordination and controlling the allocation of public funds in support of agricultural research.

The GOP through the efforts of the PCAR has made substantial progress towards defining research objectives and priorities within the context of the GOP 1974-77 Development Plan. Irrelevant activities are being terminated and a beginning has been made in consolidation of highly fragmented activities into well rounded programs having a direct bearing on the country's development program.

A seven year program starting in 1975 for the development of capabilities to implement major research programs has been elaborated. This plan entails capital investment totalling approximately \$33 million for improvements and additions to infrastructure, laboratory equipment, library materials, farm machinery and manpower development. The corresponding project outlay of recurring expenses for personnel and operations is \$107 million. Over the seven year period the recurring expenses will increase from approximately \$11 million for the first year to \$20 million during the seventh year. The capital investment is expected to average about \$5 million per year with manpower training increasing each year. Approximately 60% of the recurring budget is for operating expenses and the remaining 40% for personnel services. The 1973-74 budget for recurring expenses/operations and personnel was \$7.2 million. The 1974-75 budget is \$9.8 million and 1.0 million for operating expenses and capital investment respectively. Although the GOP program covers a seven year time span, initial AID assistance will be limited to no more than five years. Initially, the focus will rest heavily on food and feed crops, fisheries, and export crops as requested by the GOP. The commodity institutes supported by special levies on exports will continue to provide the principal support for export crops research, while external assistance principally from Japan, UNDP, and one USAID technical assistance project will provide the necessary support for fisheries research.

The proposed GOP/USAID project will be a development loan and will provide partial financing for the development of a research capability at 4 research centers: (1) The La Granja research center in Negros Occidental which is the principal center for research on soybeans and other legume seed crops, (2) the southern Mindanao Agriculture Research Center which is the principal center for research on corn and sorghum, (3) the Picol Research Center consisting of the Bicol Rice and Corn Station and the Camarines Sur College of Agriculture at Pili and the Bicol University College of Agriculture at Guinobatan, and (4) the Central Luzon Research Center comprised of the Maligaya Rice Experimental Station and the College of Agriculture Research Center of the Central Luzon State University (CLSU).

The project will be implemented within the framework of the existing Philippine institutional structure under the leadership and direction of the PCAR. The director of PCAR will be the project leader and will provide operational direction to the project. Policy and technical direction will be provided through the PCAR organization with the Governing Board providing policy direction and setting priorities

and commodity discipline research teams for establishing priorities and technical research leadership within given commodities or disciplines.

Future Effort

In looking beyond the five year period of the Agriculture Research Loan now under preparation, it appears logical that additional phases could be included to strengthen the coordinating role of PCAR and stimulate stronger linkages between the education, research and extension aspects of agriculture development. The following areas should be considered for future development:

a. Vegetable production offers real possibilities of improving the diet of most people in the Philippines and provides additional alternatives in integrated farming systems. Early emphasis might be research on the starchy root crops that could help fill the caloric-gap commonly found in the Philippines. Other vegetables are also important and their production would not only improve the diet, but would also help increase the income of farmers.

b. With increased production of feed grains, research on poultry and swine production might be an area that could demonstrate results in a relatively short period of time. Research dealing with increased efficiency in conversion of feeds would benefit both the farmer and the consumer.

c. Over a longer period, ruminant livestock offers interesting possibilities as they have the ability of using roughage that could not be consumed by monogastric animals, including humans, and converting it into high quality animal protein in the form of meat and milk. Cattle, carabao and goats are raised throughout the Philippines. Each species has special features that could make it a part of an efficient food production system. For example, cattle are primarily grazing animals, making good use of pasture grasses and legumes; goats are essentially browsing animals. A pasture management system might effectively use both animals, with the goats keeping brush and trees from regrowing in pastures and the cattle grazing the grass. Carabao thrive in wet marshy areas and have the ability to utilize coarser grasses and roughages than cattle. Research is needed to improve the pasture and forages for livestock breed animals that will use available feeds efficiently and develop efficient systems of livestock management and production covering all classes of livestock to their best advantage.

Expected Results and Beneficiaries

The four centers chosen for AID assistance constitute the more important centers (excluding the Los Baños Center which is by far the largest, the best equipped and staffed and the most comprehensive in scope) in the research network. Moreover, they are the principal centers

for research on the basic food and feed crops and consequently will be dealing directly with commodities of interest to the majority of the farmers in the country.

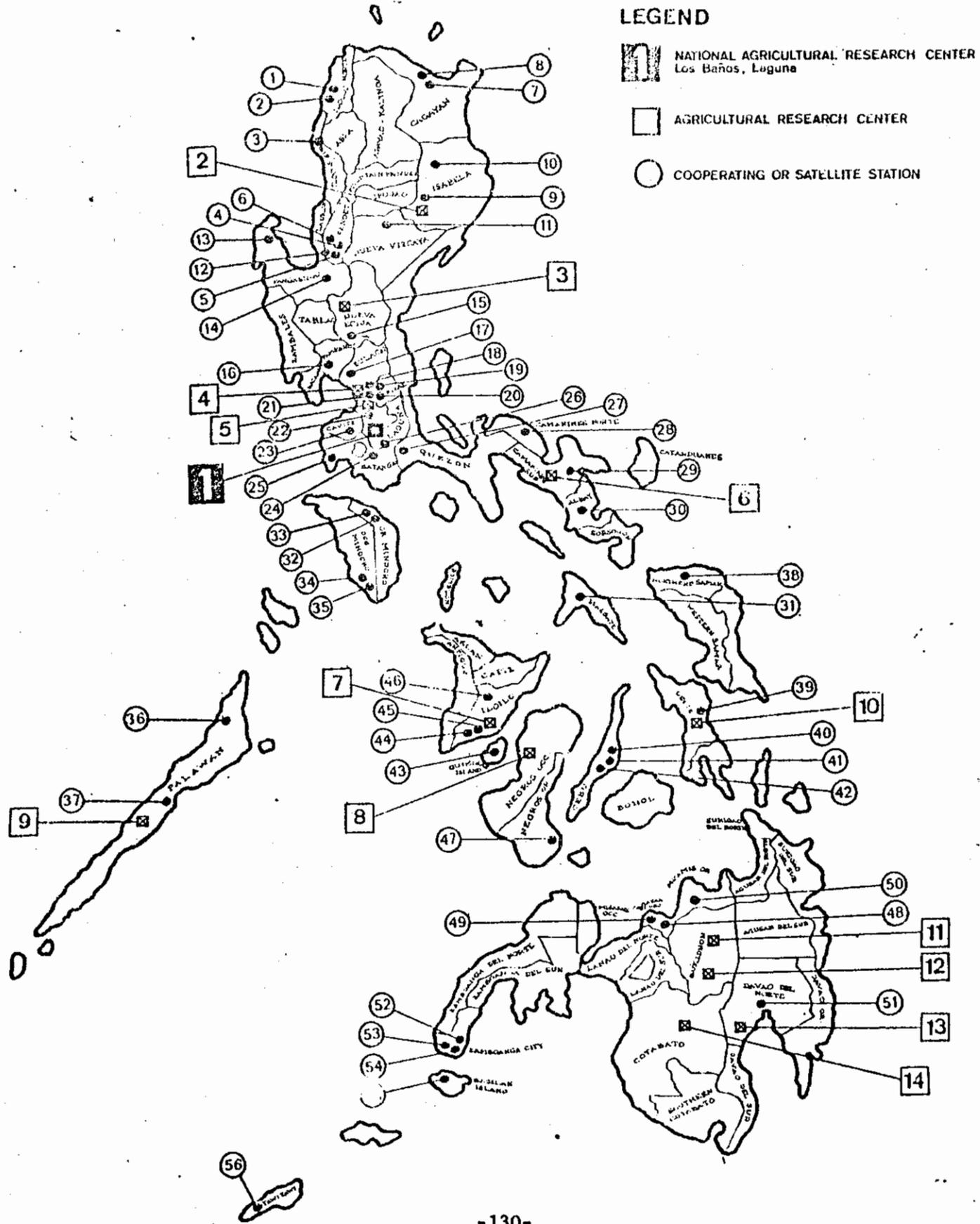
While the principal purpose of the project is the development of research capability at the four research centers, the research output will directly benefit the small farmer since most the basic and feed grains are produced by the small farmers. Over half (3.2 million ha.) of the total cropped area in the Philippines (6.1 million ha.) is devoted to rice while corn occupies about one-third (2.4 million ha.) of the cropped area. Together these two crops occupy nearly 70% of the total farm working population of 6.2 million people. Of the one million farm families making up this total, the great bulk were share tenants in 1972.

Developing crops with disease and pest resistance, high yield potential and shorter maturation periods, are all factors that can lead to the development of more efficient cropping systems for both irrigated and rainfed agriculture. The pay-off will be increased food production, increased farm income and better use of farm labor.

Summary of Future U.S. Role

Over the next 5 years, USAID will assist the PCAR in the implementation of the \$5 million loan to improve facilities at the 4 stations, train manpower and obtain technical expertise needed in specialized areas. The PCAR systems, though only in existence 18 months, demonstrated a very able management ability for coordinating rather diverse agriculture research efforts. As the proposed loan is implemented, other areas of assistance for either grant or loan aid may develop. At this time it appears that other phases of the program could include research efforts with (1) vegetable crops, (2) poultry and swine production, and (3) ruminant livestock production systems. These additional phases could make a valuable contribution to total food production and improved nutrition among the masses of Philippine people.

PCAR NETWORK OF AGRICULTURAL RESEARCH CENTERS AND COOPERATING STATIONS



POTABLE WATER

Background

The Government of the Philippines officially initiated a major program to provide potable water to the provinces on May 25, 1973 with the issuance of Presidential Decree No. 198, called the "Provincial Water Utility Act of 1973". PD 198 establishes the legal framework and national policy for the creation, operation, maintenance and expansion of economically viable water supply and waste water systems for population centers throughout the Philippines.

On the national level, the Act created the "Local Water Utilities Administration" (LWUA) for the purpose of providing to local water utilities: standards and regulations related to design, construction, operation and fiscal practices; and technical assistance and training programs. LWUA was established with authority to monitor and evaluate local water utilities: to effect system integration, annexation and deannexation wherever economically warranted; and to function as a specialized lending institution with peculiar expertise in the financing of local water utilities.

On the local level, the Act authorized the formation of local water districts to be organized and operated solely to manage and operate the public and proprietary systems of domestic water and sewer utilities. A local water district can be created by the affirmative act of the concerned local legislative body. However, once established, the water district is wholly independent and can be dissolved only by its own act.

There are approximately 300 communities in the Philippines of 30,000 population and more in need of safe and reliable water supply systems. These communities represent approximately 50% of the total Philippine population outside of greater Manila; many are areas of rapid population increase where traditional water sources such as shallow wells, springs and streams have become inadequate. Improved and potable water service has become essential both to good health and to development of these communities. Taking improved public health as a benefit of safe and adequate water supplies, positive effects are clearly greatest where population is most densely concentrated as in the targetted communities.

Recorded statistics show that the incident of waterborne diseases is greater in the Philippines than in most other Asian countries. United Nations health statistics indicate that in 1970 the mortality rate from waterborne diseases in the Philippines was 38.6 per 100,000 population as compared to 0.8 for Hongkong, 8.0 for Singapore and 19.3 for Thailand.

After several unsuccessful attempts by the GOP to address the deteriorated municipal waterworks systems, USAID, at the request of the

GOP, in May, 1968, financed a prefeasibility study conducted by a team from the U.S. Department of Health, Education and Welfare on the water-works systems in provincial areas. This study was followed by full scale feasibility studies of six major rural population centers financed under an AID loan. These studies were completed in June 1973.

The studies had two aspects. First were recommendations on the organizational and institutional aspects of water supply at both the national and local levels; these recommendations outlined the needs for technical, managerial, financial, and regulatory assistance to communities wishing to improve and expand their water utility systems. The second aspect was undertaking individual technical and economic feasibility studies of the physical requirements of the six provincial water supply systems.

As a result of these studies, Presidential Decree 198, referred to above, was issued and the GOP requested AID financial assistance to initiate the program. AID responded on May 23, 1974 with a grant of \$750,000 to finance technical assistance with respect to the institutional aspects of the program at both the national and local levels and with a \$15 million development loan to finance design and construction of pilot projects in five of the previously selected sites. It is estimated that by 1982 the population directly served by safe water systems in the five communities will have increased from approximately 250,000 to 1,000,000 persons; or from 30% served with an unsafe supply to approximately 50% served by a safe and reliable supply by 1982. This increase will occur despite an anticipated population increase of 50% during the same period.

Current Effort

A critical element of the current program is the institutional development of the LWUA (at the national level) and of the local water districts. AID is in a unique position among the international lenders to provide the requisite technical assistance because of its experience with similar programs in the Philippines and elsewhere. It is estimated that 4-6 years will be required to adequately train LWUA staff to the point of institutional viability where it, in turn, can provide the needed technical assistance to the local water districts without reliance on outside consulting services.

To date, after approximately 1½ years from the issuance of PD 198, the project has made an impressive start. On the national level, a LWUA Board of Trustees and General Manager have been appointed; LWUA has been staffed with about forty professional employees in all divisions, i.e. Loans, Technical, Regulatory, Training and General Administration; a U.S. firm has been contracted to provide technical assistance to the national and local institutional development and to provide engineering assistance on the establishment of standards, design and construction of waterwork

systems; two Philippine engineering firms are under contract to design waterworks systems in two municipalities; under a Danish loan, arrangements have been made for the feasibility, design and construction of two other municipal waterwork systems; and, under a separate AID loan, a contract has been entered into with a U.S. consulting firm to conduct feasibility studies on waterworks systems for ten additional communities.

LWUA, with assistance of its consultants, has conducted six seminars for local government and water district personnel; has held discussions with numerous communities on the formation of independent water districts and has initiated a participant training program involving observation training by LWUA and water district personnel in the U.S.

On the local level, thirteen communities have officially filed applications to form water districts under the program and nineteen are in the process of doing so.

Future Effort

Feasibility studies are currently underway on ten additional communities. These studies will be completed in 6 to 18 months. Assuming an average construction cost of \$5 million per community, the ten systems would require financing of about \$50 million comprised of \$22.5 million in direct foreign exchange costs and P200 million in local currency.

It is planned that each system financed by LWUA will be self-supporting and pay for itself over the long run. However, in the early years of the program, repayment of borrowed funds will be very limited and practically the total cost of any system constructed over the next 10-15 years will have to be financed by new money. Major international lenders, such as the IBRD and ADB, have expressed interest in providing assistance to establish potable water systems, particularly in larger metropolitan areas. In this regard the ADB has recently approved a \$51.3 million loan to partially finance the improvement/expansion of the Metropolitan Manila water system. The IBRD might be encouraged to look to future financing of the Baguio and Cebu metropolitan systems as early as 1976 or 1977. In addition to the five pilot systems currently being financed, AID has a future role in assisting the smaller, more rural, and less financially advantaged municipalities in order to demonstrate that reliable viable potable waterworks can be constructed, operated and maintained in relatively poor areas to the benefit of the lower income strata of the population. A near term requirement of a second \$20M AID development loan for construction is foreseen in early FY 1976 with the possibility of additional grant funds to help demonstrate and prove the project to the point of attracting other lenders. If then the other lenders do not offer assistance, AID should be prepared to consider supporting the program with another development loan to ensure that enough system are built to keep up the project momentum. AID is also in

a favorable position to provide additional financing for institutional development and follow-on feasibility studies and should be prepared, to do so if requested.

Expected Results and Beneficiaries

The current AID loan financed project to improve the waterworks systems of five provincial communities will cost a total of \$30 million and bring potable water to 1.0 million people upon completion. Approximately 40 percent of the Philippine population outside of greater Manila (15 million people) live in provincial communities of 30,000 people or more. To provide potable water to these 15 million people over the next thirty years at today's prices would require an annual expenditure equivalent to at least \$15 million per year or a total of \$450 million. To carry off this very ambitious and necessary program within a reasonable number of years the GOP will need financial assistance on concessionary terms and/or a large measure of direct government subsidy. It is only with such help that the goal of economically viable water supply systems for population centers throughout the Philippines is likely to be achieved.

The current AID financed project is designed to give the lower income families water at a subsidized rate. In addition, the systems are being designed to provide public water standpipes in those areas that do not have direct house connection. In effect, everyone in the service area will have access, even if limited, to potable water. It is expected that this supply of safe potable water will have beneficial effects on the health conditions of the very poorest people who currently use unclean water received from various sources. In relative terms of income of those people within the service areas, the feasibility studies show that approximately 40% of the people are in the lowest income group. Under normal conditions these people cannot afford potable water. While all persons in the service area are eligible to receive a supply of water, it is this lower 40% of the people that are the chief target group of this project.

AID plans to monitor and evaluate the individual projects very closely to insure that the poor people receive the intended benefits. This monitoring is being done by following the project implementation on a daily basis, reviewing all policy decisions related to project finances (interest rates and water rates and structure) and by participating in a project evaluation program designed to determine who is served by the waterworks systems, and the effects on health and economic development of the communities.

Summary of Future U.S. Role

Until the institutions being developed under this project are firmly established and several systems fully operative, other lenders are likely to be either unwilling or unable to provide the support needed to continue the program's momentum. USAID therefore plans to stick with the program during the next few years to assure establishment of the conditions for success.

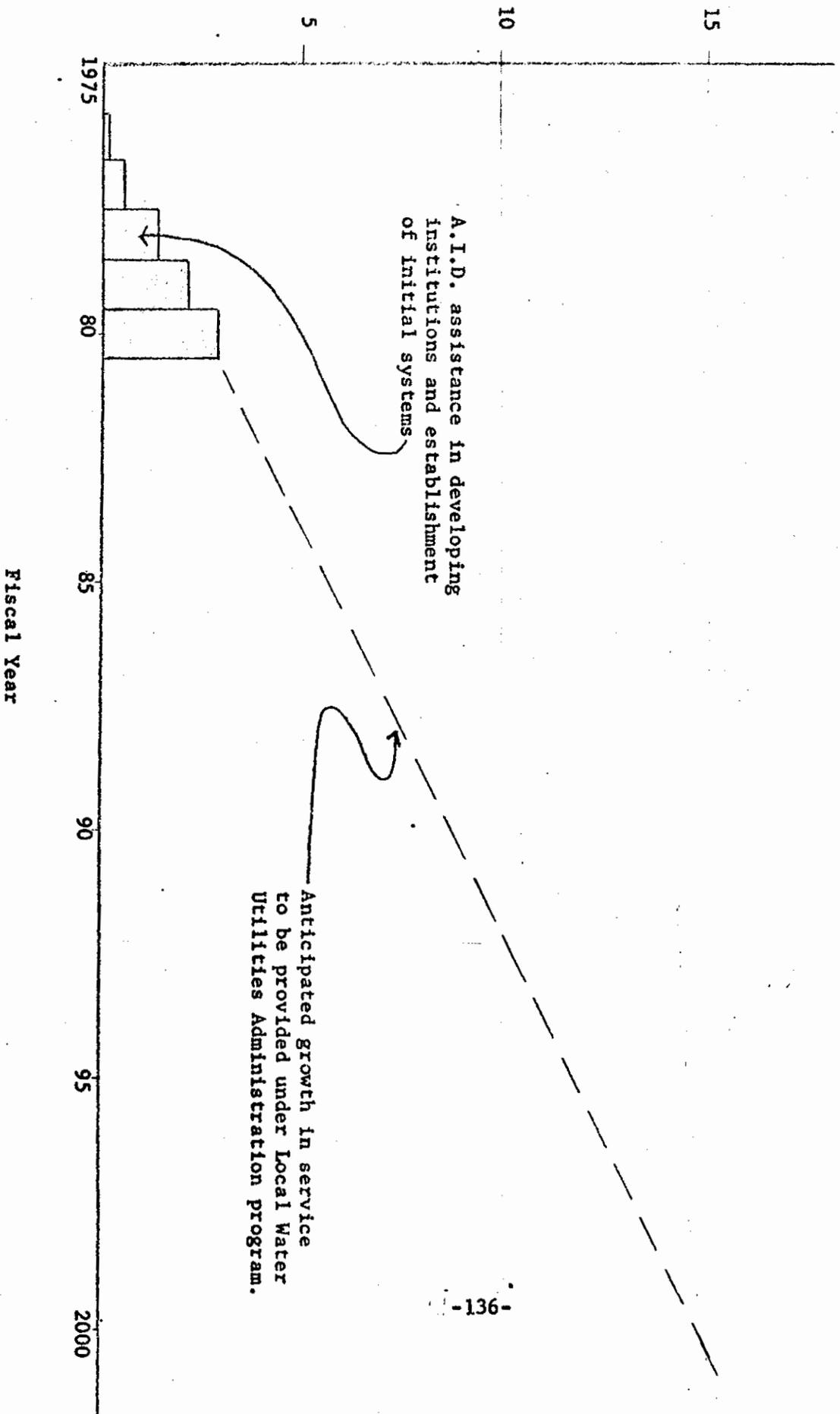
Therefore, AID should be prepared to provide additional grant financing towards the institutional development. The current grant financing is for three years through FY 1977. Another grant in FY 1977 of \$1 million would be sufficient to finance consultants to the institutional development for an additional three years which should be adequate to insure the firm establishment of the institutional part of the program.

A second loan of \$20 million in FY76 is proposed to provide the foreign exchange and a portion of the local costs necessary to construct an additional five to ten (depending on size) systems from the list of those currently being studied. The FY74 loan of \$15 million together with the \$20 million proposed in FY76 should be sufficient to construct a total of 10-15 systems. This number of systems will be sufficient to prove the project and attract other lenders. If not, another development loan may be called for.

In order to have other waterworks projects to finance, additional feasibility studies should be started in the near future. While the contract for the current feasibility studies provides for feasibility study training; in-house or local capability may not be available for another 18 months. Therefore, to assure continuity of the program, AID should provide additional loan funds in FY 1976 to conduct 10-15 additional feasibility studies.

Given the growing demand in the Philippines for loans from the IBRD, ADB and bilateral lenders to finance such basic infrastructure as roads, irrigation systems, ports, electric power generating facilities, etc., and given the direct impact of potable water on the poorer elements of the population, A.I.D. may wish to continue the focusing of a substantial portion of its assistance program in helping the Government of the Philippines to improve the country's potable water delivery systems over the next several years.

Population Served (Millions)



Philippine Provincial Waterworks Program
(Population to be served with safe potable water)

Figure 13

BAYANIHAN SCHOOL BUILDING

Background

From September through November 1970 the Philippines was struck by several highly destructive typhoons which resulted in widespread damage including the complete destruction of more than 9,000 public school classrooms which left an estimated 300,000 school children without classroom facilities. Responding to this situation, Philippine and United States Government officials in early 1971 developed a school reconstruction program calling for construction of 500 typhoon resistant school buildings in the seven hardest hit provinces and using to the fullest extent the Filipino rural tradition of Bayanihan (self-help).

Under this program the National Disaster Control Center served as the overall policy coordinator, while management and supervision were assigned to the Philippine Army Corps of Engineers. The Bureau of Public Schools was involved in all aspects of building design, site determination and monitoring of construction progress. A unique feature of the program was that it provided for the direct involvement of the local community in the construction process, in making classroom partitions, desks and blackboards and in adding other features such as landscaping, painting, toilets and washstands.

To obtain the maximum effectiveness of operations, a special reimbursement technique was devised which contained many unique and significant features. Basically this technique provided that AID funds would be used to partially reimburse funds spent by the Philippine Government in accomplishing the actual construction of the school buildings. AID funds were to be used only for the payment of a previously agreed upon cost of the building materials required to construct the building and with reimbursement to be made only when the school building had been constructed and found to be in accordance with the plans and specifications. All costs other than materials such as labor, supervision, administration, represented the GOP investment in the schools, USAID employed, under contract, sufficient personnel to assist in the field monitoring of the program.

Current Effort

Shortly after the initial RP-US Bayanihan School Reconstruction Program was successfully completed on 30 June 1972, the Philippines was struck again by a series of typhoons and weather conditions that resulted in floods of unprecedented scale. Throughout all of Luzon the damage to life and property was of major proportions. Damage was estimated at approximately half a billion pesos with destruction to public school buildings in excess of P120 million including the total

loss of some 10,000 classrooms and serious damage to another 21,000. None of the 513 RP-US Bayanihan Schools was damaged.

In this situation, the GOP requested USAID to include funding for another RP-US Bayanihan School Reconstruction Program as part of the GOP/USAID disaster recovery program. In response, \$5.1 million of the US Congress-approved \$50 million disaster recovery grant was programmed for the construction of 1,500 Bayanihan Schools (4,500 classrooms) to replace destroyed schools in 19 provinces of Luzon. Basically, the new program was the same as the original school construction program, using the same construction and the fixed cost reimbursement approach. However, in the interest of expediting the program construction responsibility was divided between the Philippine Army Corps of Engineers and the Bureau of Public Works, with the Corps of Engineers responsible for construction of 745 school buildings in 8 provinces and the BPW for 755 in 21 provinces. The target completion date for the entire program of December 31, 1974 is expected to be met except for the construction of a few schools where work has been delayed by a series of typhoons which struck Luzon during the months of October and November 1974.

Future Effort

Because of the proven worth of the RP-US Bayanihan School and the urgent need for both replacement school facilities and additional classrooms to meet the rapidly expanding school population, the GOP has proposed that USAID participate in another RP-US Bayanihan School Reconstruction Program to construct 1,000 additional Bayanihan Schools throughout the Philippines.

This proposed USAID assistance is part of a major GOP program to construct and repair school facilities throughout the Philippines. The Bureau of Public Schools has a considerable number of long-range and mid-range school building programs and plans. Basic to their programming is the fact that the public school system has at present a total national deficiency of more than 48,000 classrooms. This deficiency has been caused by several factors. Foremost is the impact of rapid population growth, particularly in rural areas. Forty-five percent of the Philippines 43 million people are under 15 years of age. To meet the educational requirements of this young expanding population requires the annual construction of a minimum of 3,000 additional classrooms. Secondly, in the past four years the damage to school buildings from typhoons and floods has been of major proportions; the 1974 losses alone are estimated at over P44 million. Unfortunately, until the design was changed recently, one of the principal victims of the high winds had been the low cost, mass produced and widely distributed Marcos-type prefabricated school. In many rural areas the local communities have attempted to meet the acute classroom shortage by constructing semi-permanent wooden structures which have also proven vulnerable to winds

of high velocity. A third factor is the extensive deterioration from old age, dry rot and termites of the large multi-roomed school buildings located in most poblacions. A legacy of American support and interest in the education of Filipino children, these grand old structures are now obsolete and even minor wind or water damage cannot be adequately repaired due to the condition of the substructure and wood.

To help overcome the classroom deficiency, the GOP has proposed an initial outlay of P45.6 million. Of this sum, P10 million will be used for the repair and rehabilitation of damaged elementary school buildings. Another P27.9 million is programmed to cover freight, transshipment and hauling costs of 2,369 units of Marcos-type prefabs received in the Philippines from the 17th Japanese war reparation schedule. This sum will also cover the cost of erecting 1,470 units of Marcos-type prefabs which have already been distributed throughout the Philippines.

In view of the demonstrated need and the high priority assigned by the GOP to construction of adequate school facilities, USAID in response to a GOP request is planning to assist in the construction of 1,000 additional RP-US Bayanihan School buildings utilizing a \$6.5 million FY 1975 Development Loan.

Expected Results and Beneficiaries

The RP-US Bayanihan School has become a symbol throughout the rural areas of Luzon of American concern and interest in Filipino school children and demonstrates the friendship between the peoples of the Philippines and the United States. Bayanihan schools with their folding partitions and large airy rooms have increasingly become centers for community and social activities, particularly in the remote and poorer barrios. Many communities use the schools for adult education programs and special community projects such as agricultural and cottage industry displays and local fairs, especially during summer vacation periods. Also of significant value is the frequent use of the schools as typhoon and storm shelters. Reports indicate that the only damage Bayanihan schools sustain occurs when frightened local people break in seeking protection.

Another salient feature of the schools has been that they have been successfully built in the most remote barrios, demonstrating that the program's concept and construction methodology are practical throughout the country.

To increase the distribution and effectiveness of the program a number of innovations have been proposed. A study of the Philippine weather and typhoon patterns reveal that it may be desirable to build three different models of the RP-US Bayanihan Schools. For typhoon prone regions, principally the northern and eastern seaboard, the present 140 mph typhoon resistant model would be constructed; for regions with

some protection by mountains such as the Central and Southern Luzon province a 110 mph typhoon resistant model would be designed; all other regions would utilize a 90 mph typhoon resistant model.

Another possible innovation would be the redesigning of the present roof structure which consists of wood roof trusses and instead substitute a concrete roof slab. Another possibility would be to narrow and lengthen the present room design which would facilitate the use of standard sized lumber and the elimination of center columns.

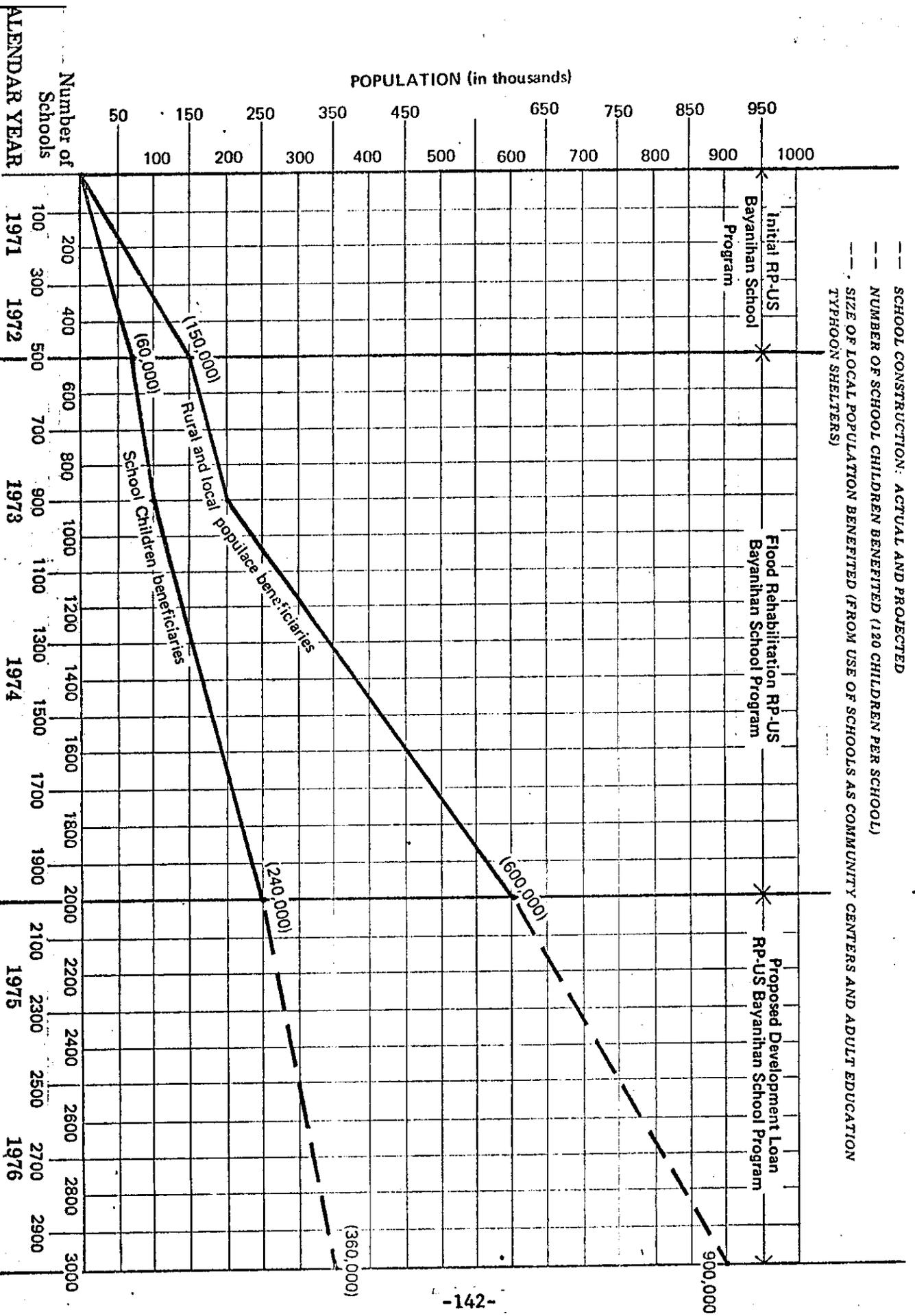
Whatever design changes may be made the basic values will be retained: providing an airy, durable and functional structure at the barrio level which directly benefits large numbers of local children. According to BPS statistics, the average Bayanihan classroom accommodates forty-four (44) children. Therefore, each RP-US Bayanihan School provides an adequate classroom facility for 132 rural children. In summary, the original RP-US Bayanihan School Reconstruction Program provided 513 schools (1,539 classrooms); the present program will provide an additional 1,500 Bayanihan Schools (4,500 classrooms) and the proposed Development Loan Program would provide another 1,000 Bayanihan Schools (3,000 classrooms). These 3,015 schools (9,039 classrooms) will provide for over 400,000 children. The families of most of these children are in the lowest rural income group. The total cost of these programs will be \$6.6 million in GOP funds and \$6.5 million in Development Loan Funds. It should be noted that the inflationary pressure on the Philippines economy has raised the reimbursable cost for the bill of materials from an original P17,800 per Bayanihan School to the present P45,000 per bill of material for the Bayanihan School. However, the GOP costs including labor and management have remained almost constant at about P15,000 to P18,000 per school.

Summary of Future U.S. Role

The GOP and USG both recognize the importance of the RP-US Bayanihan School. Based upon the success of the original and current programs and anticipating approval of the proposed program the major issue that remains is for the GOP to determine the scope of future RP-US Bayanihan School inputs. This issue is currently under study within the GOP. The final decision rests upon a number of factors such as determination of a cost benefit ratio of Bayanihan schools as compared to a wide range of other types of school buildings, including the Marcos-type prefab reparation buildings which is a major part of the present school building construction program. Undoubtedly, the social benefits will be a major consideration regardless of the comparative costs of the various types of school structures. Determinations will also have to be made on the site distribution of these school buildings. USAID estimates that approximately 15% (7,500) of the 48,000 nationwide classroom deficiency will be located in typhoon-prone areas and thus should receive the 140 mph typhoon resistant RP-US Bayanihan School Buildings.

It is therefore possible for AID to assist the GOP meet its typhoon resistant classroom requirement by funding the proposed \$6.5 million DL program with its 3,000 RP-US Bayanihan classrooms and by providing approximately \$9.5 million for 4,500 additional Bayanihan classrooms. In effect, \$16 million of AID funds would be needed to provide for the construction of 7,500 RP-US Bayanihan classrooms.

Figure 14
 RP-US BAYANIHAN SCHOOL PROGRAM



STATISTICAL APPENDIX

Table 1.1

Total Population, 1877-1974
(Census and Selected Years)

Year	Census Population <u>1/</u>	Estimated Mid-Year Population <u>2/</u>	Annual Intercensal Growth Rate
1877	5,567,685		
1887	5,984,727		
1896	6,261,339		
1903	7,635,426		2.9
1918	10,314,310		1.9
1936	16,000,303		2.2
1948	19,234,182		1.9
1960	27,087,685	27,372,420	3.1
1961		28,174,753	
1962		29,0001,656	
1963		29,859,498	
1964		30,749,682	
1965		31,673,693	
1966		32,633,087	
1967		33,629,509	
1968		34,664,683	
1969		35,740,434	
1970	36,684,486	36,851,954	3.0
1971		37,919,096	
1972		39,040,439	
1973		40,218,819	
1974		41,457,174	

Source: National Census and Statistics Office

1/ Data up to 1896, exclude non-Christian population.

2/ The 1960-69 estimates are interpolated from census populations. The 1971-74 estimates are the medium projections from New Population Projections by Age, Sex and Province for the Philippines: 1970-2000, Special Report No. 4, National Census and Statistics Office, 1972.

Table 1.2
Regional Distribution of Population
1960 and 1970

Region	1960		1970		1960-1970 % Change
	'000	%	'000	%	
<u>Luzon</u>	<u>13,930</u>	<u>51.4</u>	<u>19,521</u>	<u>53.2</u>	<u>40.1</u>
Manila	1,138	4.2	1,331	3.6	+17.0
Ilocos and Mt. Province	1,470	5.4	1,833	5.0	+24.7
Cagayan Valley and Batanes	1,036	3.8	1,463	4.0	+41.2
Central Luzon	3,691	13.6	5,100	13.9	138.2
Southern Luzon & Islands	4,232	15.6	6,827	18.6	+61.3
Bicol and Masbate	2,363	8.7	2,967	8.1	+25.6
<u>Visayas</u>	<u>7,774</u>	<u>28.7</u>	<u>9,199</u>	<u>25.1</u>	<u>+18.3</u>
Western Visayas	3,210	11.9	3,785	10.3	+17.9
Eastern Visayas	4,564	16.8	5,414	14.8	+18.6
<u>Mindanao</u>	<u>5,384</u>	<u>19.9</u>	<u>7,964</u>	<u>21.7</u>	<u>47.9</u>
Northern Mindanao	2,111	7.8	3,017	8.2	42.9
Southern Mindanao & Sulu	3,273	12.1	4,947	13.5	51.1
<u>Total</u>	<u>27,088</u>	<u>100.0</u>	<u>36,684</u>	<u>100.0</u>	<u>35.4</u>

Table 1.3

Regional Population Distribution and Net Internal Migration, 1960-70

<u>Region</u>	<u>Mid-year Population (millions)</u>		<u>Average Annual Increase %</u>	<u>Estimated Net Migration 1960-1970 (millions)</u>
	<u>1960</u>	<u>1970</u>	<u>%</u>	
<u>Philippines - Total</u>	<u>27.09</u>	<u>36.68</u>	<u>3.0</u>	<u>-0.07</u>
<u>Northern Luzon</u>	<u>2.51</u>	<u>3.29</u>	<u>2.8</u>	<u>-0.09</u>
Ilocos	1.47	1.83	1.7	-0.07
Cagayan	1.04	1.46	3.3	-0.02
<u>Central Luzon</u>	<u>4.83</u>	<u>6.43</u>	<u>2.9</u>	<u>0.01</u>
City of Manila	1.14	1.33	1.6	-0.09
Central Luzon	3.69	5.10	3.1	0.10
<u>Southern Luzon & Islands</u>	<u>6.59</u>	<u>9.80</u>	<u>3.7</u>	<u>0.70</u>
^{/1} Southern Tagalog	4.23	6.83	4.4	1.00
Bicol	2.36	2.97	2.2	-0.30
<u>Visayas</u>	<u>7.77</u>	<u>9.20</u>	<u>1.5</u>	<u>-1.04</u>
Western Visayas	3.21	3.79	1.5	-0.44
Eastern Visayas	4.56	5.41	1.6	-0.60
<u>Mindanao</u>	<u>5.38</u>	<u>7.96</u>	<u>4.0</u>	<u>0.35</u>
NE Mindanao	2.11	3.01	3.5	0.04
SW Mindanao	3.27	4.95	4.1	0.31

Source: Yun Kim "Net Internal Migration in the Philippines 1960-1970", Journal of Philippines Statistics, Vol. 23, No. 2, 1972, pp. ix-xxvii.

/1 Includes part of the Greater Manila Area.

Table 1.4

Labor Force, Participation Rates, Employment Status, Urban and Rural, 1960-1973 a/*

Item	1960	1965	1966	1967	1968	1969	1970 ^{1/}	1971	1972	1973
<u>Total</u>										
Labor force	9,116	10,764	11,757	11,776	11,371	12,046	13,220	14,192	13,886	
Participation rate	53.8	53.1	55.1	54.7	49.6	52.0	51.8	53.1	49.3	
Employed (fully and partially)	8,539	10,101	10,936	10,867	10,471	11,235	12,584	13,209	13,262	
Unemployed	577	663	821	909	900	812	636	983	624	
Unemployment rate	6.3	6.2	7.0	7.7	7.9	6.7	4.8	6.9	4.5	
<u>Urban 2/</u>										
Labor force		3,313	3,579	3,483	3,679	3,596	3,948	4,268	4,326	
Participation rate		51.0	50.5	48.4	46.5	45.1	48.0	49.6	46.0	
Employed (fully and partially)		2,958	3,223	3,124	3,347	3,267	3,592	3,737	3,981	
Unemployed		355	357	359	333	329	356	531	345	
Unemployment rate		10.7	10.0	10.3	9.3	9.2	9.0	12.4	8.0	
<u>Rural 2/</u>										
Labor force		7,451	8,178	8,293	7,692	8,450	9,272	9,924	9,560	
Participation rate		54.1	57.4	57.7	51.2	55.6	53.7	54.8	50.9	
Employed (fully and partially)		7,143	7,714	7,742	7,124	7,968	8,992	9,472	8,281	
Unemployed		308	364	551	568	483	280	452	279	
Unemployment rate		4.1	5.7	6.6	7.4	5.7	3.0	4.6	2.9	

Source: National Census and Statistics Office's Journal of Philippine Statistics, various years; Survey of Households Bulletins (Labor Force), various years.

1/ No survey in 1970.

2/ Rural/urban breakdown not available until 1965.

a/ Data for all years except the following are from the October series: 1969, 1972, -1973 May series.

* Labor force, employed, and unemployed in thousands; rates in percent.

Table 1.5

Employed Persons by Sector, 1960-1973 1/

Industry	Number in thousands									
	1960	1965	1966	1967	1968	1969	1971	1972	1973	Composition in percent
Agriculture, forestry, hunting and fishing	5,224	5,727	6,290	6,330	5,631	6,325	6,440	7,166	7,016	
Mining and Quarrying	29	24	26	45	43	51	56	58	62	
Manufacturing	1,036	1,101	1,229	1,223	1,234	1,291	1,472	1,467	1,418	
Construction	231	295	283	276	342	349	467	456	522	
Transport, storage & communication	271	339	384	375	363	383	518	479	505	
Electricity, gas, water and sanitary service	20	22	37	30	36	29	58	40	37	
Commerce	753	1,114	1,126	1,078	1,130	1,109	1,531	1,674	1,660	
Government, community, business and recreational services	424	708	788	769	903	884	1,132	1,059	1,087	
Domestic services	321	500	502	502	503	527	611	562	670	
Personal services other than domestic	184	227	242	229	252	245	270	237	255	
Industry not reported	46	47	30	10	33	40	29	20	29	
Total	8,539	10,101	10,936	10,867	10,471	11,235	12,584	13,217	13,262	
	<u>Composition</u>									
Agriculture, forestry, fishing and hunting	61.2	56.7	57.5	58.3	53.8	56.3	51.2	54.2	52.9	
Mining and Quarrying	0.3	0.2	0.2	0.4	0.4	0.5	0.5	0.4	0.5	
Manufacturing	12.1	10.9	11.2	11.3	11.8	11.5	11.7	11.1	10.7	
Construction	2.7	2.9	2.6	2.5	3.3	3.1	3.7	3.4	3.9	
Transport, storage & communication	3.2	3.4	3.5	3.4	3.5	0.3	4.1	3.6	3.6	
Electricity, gas, water & sanitary services	0.2	0.2	0.3	0.3	0.3	9.9	0.4	0.3	0.3	
Commerce	8.8	11.0	10.3	9.9	10.8	3.4	12.2	12.7	12.5	
Gov't, community, business and recreational services	5.0	7.0	7.2	7.1	8.6	7.9	9.0	8.0	8.2	
Domestic services	3.8	5.0	4.5	4.6	4.8	4.7	4.8	4.3	5.1	
Personal services other than domestic	2.2	2.2	2.2	2.1	2.4	2.2	2.2	1.8	1.9	
Industry not reported	0.5	0.5	0.3	0.1	0.3	0.4	0.2	0.2	0.2	
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	

Source: National Census and Statistics Office - Survey of Households, various years. 1964, 1969, 1971, 1972 and 1973 data from May employment series, no survey in 1970, all other years based on October series.

Table 1.6

Net Domestic Value Added per Employee by Sector, 1960-1973
(at 1967 constant prices)

Sector	Amount in thousand pesos				
	1960	1965	1971	1972	1973
Agriculture, fishery and forestry	1,124	1,263	1,387	1,249	1,362
Mining and Quarrying	8,828	11,708	11,607	11,828	11,806
Manufacturing	2,843	3,335	3,734	3,973	4,603
Construction	2,225	2,932	1,651	2,224	2,385
Transport, storage and communication	2,066	2,109	1,903	2,169	2,210
Electricity, gas, and water	6,150	6,227	2,896	4,450	5,135
Commerce	3,315	2,866	2,846	2,744	2,954
Services	4,241	3,480	3,146	3,586	3,479
TOTAL	1,980	2,104	2,208	2,196	2,366

Source: Based on data in Tables 1.5 and 2.4.

Table 2.2

Expenditures on Gross National Product, 1960 - 1973
(At constant 1967 prices)

Item	Amount										Amount in million pesos		
	1960	1965	1966	1967	1968	1969	1970	1971	1972	1973 ^{p/}	Composition in percent		
Private Consumption Expenditure	15,057	19,319	20,313	21,276	22,146	23,178	23,872	24,897	25,735	27,337			
General Government Consumption Exp.	1,837	2,314	2,354	2,386	2,509	2,753	2,574	2,905	3,208	3,360			
Fixed Capital Formation	2,980	4,647	4,697	5,743	5,939	5,949	5,615	5,944	6,035	6,587			
Increase in Stock	308	537	577	517	543	557	775	723	785	842			
Export of Goods and Non-Factor Services	2,517	4,293	4,617	4,703	4,276	4,073	4,466	4,924	5,815	6,360			
Less: Imports of Foods and Non-Factor Services	3,258	4,091	4,285	5,272	5,680	5,502	5,055	4,836	4,804	5,423			
Gross Domestic Product	19,441	27,019	28,273	29,353	29,733	31,008	32,247	34,557	36,774	39,063			
Net Factor Income from Abroad	-351	-130	-148	-297	-388	-254	-489	-310	-382	-205			
Statistical Discrepancy	-96	-2,242	-2,284	-1,700	-541	-258	430	-57	-779	244			
Gross National Product	18,994	24,647	25,841	27,356	28,804	30,496	32,188	34,190	35,613	39,102			
Private Consumption Expenditure	79.3	78.4	78.6	77.8	76.9	76.0	74.2	72.8	72.3	69.9			
General Gov't. Consumption Expenditure	9.7	9.4	9.1	8.7	8.7	9.0	8.0	8.5	9.0	8.6			
Fixed Capital Formation	15.7	18.9	18.2	21.0	20.6	19.5	17.4	17.4	16.9	16.8			
Increase in Stocks	1.6	2.2	2.2	1.9	1.9	1.8	2.4	2.1	2.2	2.2			
Exports in Goods and Non-Factor Service	13.3	17.4	17.9	17.2	14.8	13.4	13.9	14.4	16.3	16.3			
Less: Imports of Goods and Non-Factor Services	17.2	16.6	16.6	19.3	19.7	18.0	15.7	14.1	13.5	13.9			
Gross Domestic Product	102.4	109.6	109.4	107.3	103.2	101.7	100.2	101.1	103.3	99.9			
Net Factor Income from Abroad	-1.8	-0.5	-0.6	-1.1	-1.3	-0.8	-1.5	-0.9	-1.1	-0.5			
Statistical Discrepancy	-0.5	-9.1	-8.8	-6.2	-1.9	-0.8	1.3	-0.2	-2.2	-0.6			
Gross National Product	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0			

Source: National Accounts Staff, Statistical Office, NEDA

Figures for 1960-1966 have been obtained by linking the national accounts for 1960-1967 to the base year of 1967-1973 series.

^{p/} Preliminary

Table 2.3

Industrial Origin of Net Domestic Product at Factor Cost, 1960-1973
(At Current Prices)

Sector	Amount in Million Pesos									
	1960	1965	1966	1967	1968	1969	1970	1971	1972	1973 p/
	<u>Amount</u>									
Agric., Fishery and Forestry	3,669	6,201	6,801	7,775	9,041	10,605	12,460	15,185	17,017	20,985
Mining and Quarrying	128	232	315	348	418	530	845	924	1,052	1,692
Manufacturing	2,141	3,400	3,738	4,274	4,692	5,073	6,540	7,808	8,979	12,263
Construction	395	758	760	880	838	979	876	1,021	1,386	1,742
Transport, Storage & Communication	464	662	735	812	881	925	1,039	1,222	1,408	1,671
Electricity, Gas and Water	98	124	136	116	139	153	191	229	253	303
Wholesale and Retail Trade	1,456	2,080	2,287	2,520	2,585	2,761	3,325	3,883	4,420	5,427
Banking, Insurance and Real Estate	409	834	941	1,081	1,257	1,314	1,564	1,980	2,328	2,716
Ownership of Dwellings	488	991	1,099	1,223	1,344	1,411	1,598	1,780	1,959	2,182
Public Services and Defense	767	1,502	1,646	1,803	1,991	2,212	2,500	2,880	3,390	3,469
Other Services	1,392	2,078	2,348	2,541	2,771	3,022	3,399	3,855	4,395	5,191
Net Domestic Product	11,407	18,862	20,806	23,373	25,957	28,985	34,337	40,767	46,587	57,641
Rest of the world	-214	-123	-144	-297	-384	-307	-799	-597	-857	-468
Net National Product	11,193	18,739	20,662	23,076	25,573	28,678	33,538	40,170	45,730	57,173
	<u>Composition</u>									
Agric., Fishery & Forestry	32.2	32.9	32.7	33.3	34.8	36.6	36.3	37.2	36.5	36.4
Mining and Quarrying	1.1	1.2	1.5	1.5	1.6	1.8	2.5	2.3	2.3	2.9
Manufacturing	18.8	18.0	18.0	18.3	18.1	17.5	19.0	19.2	19.3	21.3
Construction	3.5	4.0	3.7	3.8	3.2	3.4	2.6	2.5	3.0	3.0
Transport, Storage & Communication	4.1	3.5	3.5	3.5	3.4	3.2	3.0	3.0	3.0	2.9
Electricity, Gas and Water	0.9	0.7	0.7	0.5	0.5	0.5	0.6	0.6	0.5	0.5
Wholesale & Retail Trade	12.8	11.0	11.0	10.8	10.0	9.5	9.7	9.5	9.5	9.4
Banking, Insurance and Real Estate	3.6	4.4	4.5	4.6	4.8	4.5	4.6	4.9	5.0	4.7
Ownership of Dwellings	4.3	5.3	5.3	5.2	5.2	4.9	4.7	4.4	4.2	3.8
Public Services and Defense	6.7	8.0	7.9	7.7	7.7	7.6	7.3	7.1	7.3	6.0
Other Services	12.2	11.0	11.3	10.9	10.7	10.4	9.9	9.5	9.4	9.0
Net Domestic Product	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Rest of the World	-1.9	-0.7	-0.7	-1.3	-1.5	-1.1	-2.3	-1.5	-1.9	-0.8
Net National Product	98.1	99.3	99.3	98.7	98.5	98.9	97.7	80.2	80.4	80.2

Source: National Accounts Staff, Statistical Office, NEDA

Figures for 1960-1966 have been obtained by linking the national accounts for 1960-1967 to the base year of 1967-1973 series.

p/ Preliminary

Table 3.1

Balance of Payments: Consolidated Account, 1960-1973

Million US \$

Item	1960	1965	1966	1967	1968	1969	1970	1971	1972	1973
<u>Current Account</u>	-4	137	162	-24	-250	-234	-29	9	11	475
Trade (net)	-29	-24	-9	-223	-274	-257	-7	-37	-151	274
Exports	575	784	844	839	876	875	1,083	1,149	1,109	1,871
Imports	604	808	853	1,063	1,150	1,132	1,090	1,186	1,260	1,597
Services (net)	-115	62	73	13	-110	-132	-141	-88	-26	-30
Receipts	68	308	343	384	290	248	258	264	376	583
Payments	183	246	270	371	400	380	399	352	402	613
Private transfers (net)	80	73	53	114	91	106	93	103	152	168
Receipts	81	77	71	124	93	108	95	106	158	176
Payments	1	4	18	10	2	2	2	3	6	8
Official transfers (net)	60	26	45	72	43	49	26	31	36	63
Receipts	60	27	46	73	45	50	29	38	40	69
Payments	-	1	1	1	2	1	3	7	4	6
<u>Capital account</u>	64	-77	-22	31	397	223	181	124	174	210
Direct Investment (net)	29	-10	-15	-9	-3	6	-29	-4	-22	64
Private loan capital (net)	44	121	-	69	366	194	170	58	39	69
Medium and long-term	45	-4	14	57	188	127	94	-34	-17	-5
Short-term	-1	-117	-14	12	178	67	76	92	56	74
Public loan capital (net)	-9	54	-7	-29	34	23	40	70	157	77
<u>Monetary sector</u>	6	94	-57	51	-25	96	93	98	72	-192
Deposit money banks (net)	1	12	-75	-55	8	29	35	94	136	-106
Liabilities	-4	30	-53	-30	14	12	32	117	173	-
Assets	5	-17	-22	-25	-6	17	3	-23	-37	-
Central Banks (net)	5	82	18	106	-33	67	58	4	-64	-86

Balance of Payments: Consolidated Account, 1960-1973
(continuation)

Million US \$

Item	1960	1965	1966	1967	1968	1969	1970	1971	1972	1973 ^{p/}
Liabilities 2/ Assets (not related to reserves)	5	82	18	106	-33	67	58	4	-64	-86
Allocation of SDRs	-	-	-	-	-	-	18	17	16	-
Reserves and Related Items (- = increase)	-33	-79	-	14	74	40	-116	-104	-167	-509
Use of IMF credit (other than gold tranche)	22	-10	-14	28	55	-	14	21	7	-21
Monetary gold	-6	-15	-5	-17	-1	16	-11	-11	-4	31
Reserve position with IMF (gold tranche)	-25	-4	-9	-	-	-	-	-	-	-
Foreign exchange holdings of Central Bank	-24	-50	28	3	20	24	-119	-114	-170	-519
Errors and Omissions	-33	-75	-83	-72	-196	-125	-147	-144	-106	16

Source: IMF, Balance of Payments Year Book, as revised by Central Bank of the Philippines

1/ Includes non-monetary gold.

2/ The credit entries cover drawings, and the debt entries cover repayments, on short-term and long-term loans from US and Japan and European banks. In 1968, repayments of short-term loans from US banks was rescheduled; in 1970, repayment of short-term and medium-term debt to US banks was rescheduled and repayment of short-term debt to European banks was rescheduled. No entries are made in this table for reclassification of debt; only actual repayments are entered.

p/ Preliminary

Table 3.2

Quantum, Price and Value Indices, and Net Terms of Trade1960-1973
(1965 = 100.0)

	<u>Quantum Index</u>		<u>Price Index 1/</u>		<u>Value Index</u>		Net Terms of trade
	Imports	Exports	Imports	Exports	Imports	Exports	
1960	82.4	72.2	88.4	101.2	72.8	73.0	114.5
1961	84.5	69.8	89.7	93.1	75.8	65.0	103.8
1962	80.0	76.5	91.4	94.1	73.1	72.1	103.0
1963	78.6	94.1	97.5	99.1	76.7	94.2	101.6
1964	97.3	97.4	98.3	98.3	95.6	95.8	100.0
1965	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1966	106.4	106.0	101.6	100.9	108.1	107.2	99.3
1967	126.7	102.3	103.9	102.7	131.7	105.1	98.8
1968	138.3	103.8	103.3	107.9	142.9	112.0	104.4
1969	132.4	100.4	105.9	109.8	140.1	110.2	103.7
1970	123.8	114.5	109.0	120.5	134.9	137.8	110.6
1971	124.8	129.6	119.1	112.1	148.6	145.3	94.1
1972	124.6	143.7	128.0	100.0	159.5	143.7	78.1
1973	132.8	160.5	149.1	149.0	198.0	239.2	99.9

Source: Central Bank of the Philippines

1/ Unit value of imports are based on c.i.f. value while those for exports are based on f.o.b. value.

Table 3.3

Total External Debt Outstanding (Disbursement Basis) by Maturity and Type of Borrower, 1965-1973

End of Period	Million US \$										
	1965	1966	1967	1968	1969	1970	1971	1972	1973		
<u>Short-Term 1/</u>	<u>124.5</u>	<u>146.1</u>	<u>354.4</u>	<u>319.7</u>	<u>472.8</u>	<u>349.7</u>	<u>339.6</u>	<u>320.0</u>	<u>332.9</u>		
Public Sector	73.3	102.8	209.0	120.1	196.4	62.8	38.5	31.5	-		
Central Bank	73.3	102.8	209.0	120.1	196.4	62.8	38.5	27.5	-		
Others	-	-	-	-	-	-	-	4.0	-		
Private Sector	51.2	43.3	145.4	199.6	276.4	286.9	301.1	288.5	332.9		
Commercial Banks	47.8	36.2	63.7	61.3	97.0	54.8	36.5	25.5	24.2		
Others	3.4	7.1	81.7	138.3	179.4	232.1	264.6	263.0	308.7		
<u>Medium-Term 2/</u>	<u>236.3</u>	<u>202.8</u>	<u>217.6</u>	<u>444.6</u>	<u>541.0</u>	<u>509.8</u>	<u>371.2</u>	<u>334.9</u>	<u>321.8</u>		
Public Sector	135.9	114.5	86.3	162.9	141.6	140.9	111.3	120.2	147.8		
Central Bank	51.8	25.3	25.5	86.1	72.6	64.0	12.2	7.8	66.2		
Others	84.1	89.2	60.8	76.8	69.0	76.9	99.1	112.4	81.6		
Private Sector	100.4	88.3	131.3	281.7	399.4	368.9	259.9	214.7	174.0		
<u>Long-Term 3/</u>	<u>238.7</u>	<u>275.1</u>	<u>479.9</u>	<u>603.2</u>	<u>815.4</u>	<u>1,170.2</u>	<u>1,248.2</u>	<u>1,421.5</u>	<u>1,606.9</u>		
Public Sector	149.6	154.5	166.7	187.1	255.6	490.0	528.4	653.0	739.9		
Central Bank	-	0.4	1.6	4.6	4.4	205.1	195.9	231.3	257.3		
Others	149.6	154.1	165.1	182.5	251.2	284.9	332.5	421.7	482.6		
Private Sector	89.1	120.6	313.2	416.1	559.8	680.2	719.8	768.5	867.0		
<u>TOTAL</u>	<u>599.5</u>	<u>624.0</u>	<u>1,051.9</u>	<u>1,367.5</u>	<u>1,829.2</u>	<u>2,029.7</u>	<u>1,959.0</u>	<u>2,076.4</u>	<u>2,261.6</u>		
Total Public Sector	358.8	371.8	462.0	470.1	593.6	693.7	678.2	804.9	887.7		
Central Bank	125.1	128.5	236.1	210.8	273.4	331.9	246.6	266.8	323.5		
Others	233.7	243.3	225.9	259.3	320.2	361.8	431.6	538.1	564.2		
Total Private Sector	240.7	252.2	589.9	897.4	1,235.6	1,336.0	1,230.8	1,271.7	1,373.9		

Source: External Debt Management Office, Central Bank of the Philippines

1/ Payable within one year, including revolving credits, commercial banks include PNB and NIDC.

2/ Payable from two to five years.

3/ Payable over five years, and beyond.

Table 3.4

Official Assistance Loans 1/ to the Philippines by Type of Loan
1965-1973
(in million US \$)

Item	1965	1966	1967	1968	1969	1970	1971	1972	1973
1. Gross Commitments	15.0	45.1	22.7	8.3	76.2	66.6	137.6	218.8	234.4
Commodity Loans	-	20.1	-	-	-	10.0	75.8	122.6	55.0
Project Loans	15.0	25.0	22.7	8.3	76.2	56.6	61.8	95.2	179.4
2. Gross Disbursements	30.8	11.3	19.1	33.8	40.4	43.0	48.4	101.3	123.5
Commodity Loans	-	0.2	-	4.9	8.2	16.6	10.3	80.8	97.7
Project Loans	30.8	11.1	19.1	28.9	32.2	26.4	38.1	20.5	25.8
3. Amortizations	4.6	5.1	5.8	5.9	7.4	14.6	18.4	7.7	13.9
Commodity Loans	0.3	0.2	0.5	0.4	0.5	4.6	2.0	1.7	0.8
Project Loans	4.3	4.9	5.3	5.5	6.9	10.0	16.4	6.0	13.1
4. Interest Payments	4.5	6.0	6.2	6.7	8.0	9.8	11.8	13.5	16.6
Commodity Loans	0.7	0.7	0.7	0.7	0.9	1.1	1.9	2.8	3.4
Project Loans	3.8	5.3	5.5	6.0	7.1	8.7	9.9	10.7	13.2
5. Net Transfers (2 less 3 and 4)	21.7	0.2	7.1	21.2	25.0	18.6	18.2	80.1	93.0
Commodity Loans	- 1.0	- 0.7	- 1.2	3.8	6.8	10.9	6.4	76.3	93.5
Project Loans	22.7	0.9	8.3	17.4	18.2	7.7	11.8	3.8	- 0.5

Source: External Debt Management Office, Central Bank of the Philippines.
1/ Public foreign borrowings with maturities of 15 years or longer.

Table 3.5

Official Assistance Loans 1/ to the Philippines by Donor, 1965-1973

Creditor Country or Institution	Million US \$								
	1965	1966	1967	1968	1969	1970	1971	1972	1973
I. Gross Commitments during the Year	15.0	45.1	22.7	8.3	76.2	46.6	130.6	195.8	257.8
United States	15.0	20.1	10.7	8.3	14.7	10.0	21.0	62.0	26.2
Japan	-	-	-	-	-	10.0	42.0	58.0	54.0
West Germany	-	-	-	-	-	-	6.1	-	-
Belgium	-	-	-	-	-	1.0	-	0.6	1.2
Denmark	-	-	-	-	-	-	3.9	-	-
IBRD	-	25.0	12.0	-	59.0	-	22.3	22.0	85.7
IDA	-	-	-	-	-	-	-	10.0	12.7
ADB	-	-	-	-	2.5	25.6	28.9	43.2	78.0
II. Gross Disbursements during the Year	30.8	11.3	19.1	33.8	40.4	43.0	48.4	101.3	123.5
United States	17.6	3.7	2.2	14.6	11.2	21.3	12.5	26.4	25.7
Japan	-	-	-	-	10.2	6.6	2.3	61.7	77.6
West Germany	-	-	3.4	6.2	0.4	0.9	-	-	0.2
Belgium	-	-	-	-	-	-	1.0	-	-
Denmark	-	-	-	-	-	-	-	-	2.2
IBRD	13.2	7.6	13.5	13.0	18.6	14.1	31.0	11.2	10.6
IDA	-	-	-	-	-	-	-	0.1	0.4
ADB	-	-	-	-	-	0.1	1.6	1.9	6.8
III. Debt Outstanding (Disbursement Basis)	110.2	116.4	129.7	157.6	190.6	219.0	249.0	342.6	452.1
United States	58.8	59.4	57.8	69.4	76.7	88.6	94.9	115.2	136.8
Japan	-	-	-	-	10.2	16.8	19.1	80.8	158.4
West Germany	-	-	3.4	9.6	10.0	10.9	10.3	9.1	6.7
Belgium	-	-	-	-	-	-	1.0	1.0	1.0
Denmark	-	-	-	-	-	-	-	-	2.2
IBRD	51.4	57.0	68.5	78.6	93.7	102.6	122.0	132.8	136.1
IDA	-	-	-	-	-	-	-	0.1	0.5
ADB	-	-	-	-	-	0.1	1.7	3.6	10.4

Source: 1965-1969 External Debt Management Office, Central Bank of Philippines; 1970-1973/Mission Estimate
1/ Public foreign borrowings with maturities of 15 years or longer.

Table 4.1

National and Local Government Tax Revenues, Classified by Type of Tax, FY 1965-1973

Item	Amount in million pesos									
	1964-65	1965-66	1966-67	1967-68	1968-69	1969-70	1970-71	1971-72	1972-73p/	Share in percent
National Government	1,748	1,830	2,264	2,511	2,897	3,249	4,503	5,011	6,796	
<u>Direct Taxes</u>	503	507	592	694	870	988	1,276	1,417	2,610	
<u>Income</u>	481	486	564	663	839	944	1,221	1,350	1,958	
Individual Corporation	126	193	129	219	243	266	349	444	562	
Estate, gift & inheritance	355	293	435	444	596	678	872	906	1,396	
Residence	11	9	15	16	15	17	15	16	23	
Immigration & Real Property Tax	10	11	12	14	15	16	18	20	18	
Amnesty Tax	1	1	1	1	1	11	22	31	36	
<u>Indirect Taxes</u>	1,245	1,323	1,672	1,817	2,027	2,261	3,227	3,594	4,186	
Excise	394	427	474	519	553	562	606	664	735	
License & Business Tax	460	475	609	653	748	836	996	1,176	1,299	
Import Duties	318	335	496	545	601	612	861	1,084	1,435	
Export Stabilization	-	-	-	-	-	108	577	475	457	
Documentary Stamp	18	20	22	25	37	45	71	75	97	
Forest products	16	18	20	20	24	23	31	35	45	
Wharfage Fees	24	27	32	36	39	38	42	42	50	
Franchise	9	12	14	14	18	21	30	35	50	
Fines and Penalties	4	4	3	3	4	4	3	3	6	
Miscellaneous	2	5	2	2	3	12	5	5	12	
Local Government	160	174	193	219	217	285	279	288	375	
<u>Direct</u>	89	98	111	120	112	182	163	163	237	
<u>Indirect</u>	71	76	82	99	105	103	116	125	138	
Total Tax Receipts	1,908	2,004	2,457	2,730	3,114	3,534	4,782	5,299	7,171	
<u>Direct</u>	592	605	703	814	982	1,170	1,439	1,580	2,847	
<u>Indirect</u>	1,316	1,399	1,754	1,916	2,132	2,364	3,343	3,719	4,324	

National and Local Government Tax Revenues, Classified by Type of Tax, FY 1965-1973
(continuation)

Item	1964-64	1965-66	1966-67	1967-68	1968-69	1969-70	1970-71	1971-72	1972-73
Share in G.N.P									
<u>National Government</u>	8.6	7.9	8.8	8.7	9.1	8.6	9.9	9.3	11.0
Direct	2.5	2.2	2.3	2.4	2.7	2.6	2.8	2.6	4.3
Indirect	6.1	5.7	6.5	6.3	6.4	6.0	7.1	6.7	6.7
<u>Local Government</u>	.8	.7	.7	.8	.7	.8	.8	.8	.9
Direct	.4	.4	.4	.4	.4	.5	.5	.5	.6
Indirect	.4	.3	.3	.4	.3	.3	.3	.3	.3
<u>TOTAL</u>	9.4	8.6	9.5	9.4	9.8	9.4	10.7	10.1	11.9
Direct	2.9	2.6	2.7	2.8	3.1	3.1	3.1	2.9	4.9
Indirect	6.5	6.0	6.8	6.6	6.7	6.3	7.4	6.9	7.0

Sources: BIR, Bureau of Customs and Reports of the Auditor General on Local Government.
P/ Preliminary

Table 4.2
National Government Expenditures, FY 1965-1973

Item	1964-65	1965-66	1966-67	1967-68	1968-69	1969-70	1970-71	1971-72	1972-73
<u>Current Expenditures</u>									
General Administration	519	553	588	727	782	969	1,110	1,340	1,724
General Government	230	240	238	264	292	395	395	462	417
Justice and Police	110	122	137	161	197	223	264	378	472
National Defense	178	192	214	302	293	351	428	500	835
Social Services	738	836	916	985	1,127	1,323	1,485	1,700	1,745
Education	598	688	770	819	939	1,066	1,205	1,360	1,300
Health	113	120	117	135	167	204	219	260	250
Labor and Welfare	26	30	29	31	21	53	61	80	195
Economic Services	356	367	402	487	596	614	662	751	1,286
Agric. & Natural Resources	118	114	123	138	186	184	184	238	713
Transport and Communications	124	182	206	259	282	241	330	360	402
Commerce and Industry	27	25	27	29	68	41	53	62	55
Other Economic Development	37	46	46	61	61	149	95	91	116
Transfer Payments	111	86	123	98	265	199	143	791	564
Subsidies	64	18	44	53	170	57	16	18	12
Other transfers	47	68	79	45	95	121	127	467	446
National Defense	45	55	62	27	74	99	103	84	87
Others	2	13	18	18	21	22	24	150	19
Debt Service	119	158	181	177	286	244	358	327	496
Interest Payments	55	74	77	92	103	149	213	228	272
Capital Transfers ^{1/}	64	84	104	85	183	95	145	99	224
TOTAL CURRENT EXPENDITURES	1,843	2,002	2,210	2,474	3,056	3,328	3,758	4,837	5,815

Source: Budget Commission

^{1/} Loan repayments and sinking fund contributions.

continuation Table 4.2

Item	1964-65	1965-66	1966-67	1967-68	1968-69	1969-70	1970-71	1971-72	1972-73
<u>Capital Expenditure</u>									
General Administration	14	22	33	42	35	24	17	31	74
General Government	11	19	15	20	11	14	0	7	10
Justice and Police	1	1	3	7	7	2	6	1	6
National Defense	2	2	14	16	16	8	11	23	58
Social Services	11	35	37	51	65	90	54	57	235
Education	6	25	31	43	50	66	39	44	63
Health	4	8	6	7	15	22	7	12	21
Labor and Welfare	1	1	0	1	0	2	8	1	151
Economic Services	209	169	251	376	457	612	600	663	1,817
Agric. and Natural Resources	15	53	38	68	99	57	106	187	397
Transport & Communications	179	90	200	262	271	445	312	398	706
Commerce and Industry	2	2	2	6	9	17	63	8	3
Other Economic Development	12	23	11	40	78	93	119	70	711
TOTAL CAPITAL EXPENDITURES	233	225	321	469	555	726	571	571	2,126
TOTAL EXPENDITURES	2,076	2,227	2,531	2,943	3,611	4,054	4,429	5,588	7,941

Source: Budget Commission

Expenditures of Government corporations financed by sources other than the national budget are excluded. Also excluded are all foreign financed expenditures.

Table 4.3
Consolidated Statement of Local Government
Revenues and Expenditures, FY 1965-1973

Item	1964-65	1965-66	1966-67	1967-68	1968-69	1969-70	1970-71	1971-72	1972-73
<u>Revenue - Total</u>									
Local Government	581	634	674	741	849	999	1,144	1,371	1,520
Internal Revenue Allotment	229	213	249	266	346	384	488	607	598
Real Property Tax	89	98	111	120	112	182	147	163	261
Municipal Licenses	71	76	82	99	105	103	116	125	155
Fees & Charges	81	91	98	105	110	116	127	135	208
National Aid	47	61	43	68	75	87	68	110	-
All Others	64	95	91	83	101	127	198	231	298
<u>Expenditures - Total</u>									
Local Government	541	638	698	756	817	933	1,081	1,361	1,444
Current Operating	465	531	570	652	701	808	937	1,164	n.a.
Capital Outlays	76	107	128	104	116	125	144	197	n.a.
Surplus (+)/Deficit (-)	+40	- 4	-24	-15	+32	+66	+63	+10	+76
<u>Functional Classification</u>									
of Expenditures - Total									
Local Government	541	638	698	756	817	933	1,081	1,361	1,444
General Administration	250	286	308	340	377	417	489	604	684
Economic Development	102	118	118	142	153	180	192	241	232
Social Improvement	75	86	102	112	110	144	191	266	276
Debt Service	7	11	10	11	15	14	17	15	22
All Others	107	137	160	151	162	178	192	235	230

Source: Reports of the Auditor General on Local Governments.

Table 5.1

Consumer Price Indices, 1965-1973
(1965 = 100)

	1965	1966	1967	1968	1969	1970	1971	1972	1973
<u>Indices</u>									
Consumer price index for the Philippines									
All items	100.0	104.8	110.6	113.0	114.5	131.5	160.2	173.4	194.5
Food	100.0	106.1	113.7	115.5	116.8	134.0	173.2	189.1	213.7
Clothing	100.0	105.8	111.9	115.8	118.7	140.9	165.6	189.0	227.6
Rent and repairs	100.0	102.1	104.5	108.4	109.7	116.0	121.7	126.9	133.5
Fuel, light and water	100.0	103.0	103.6	103.1	104.3	127.7	152.8	156.5	173.2
Miscellaneous	100.0	102.6	106.2	109.9	111.7	129.3	143.1	150.9	164.2
Consumer price index for Manila									
All items	100.0	105.4	112.0	114.6	116.9	133.7	153.2	168.9	187.5
Food	100.0	109.9	119.0	119.1	121.0	139.5	167.5	190.0	215.4
Clothing	100.0	101.0	105.8	108.5	109.8	142.1	168.5	185.8	219.4
Rent and repairs	100.0	103.6	107.6	114.3	116.9	127.5	137.0	146.1	155.5
Fuel, light and water	100.0	102.6	103.0	104.1	103.9	128.7	144.7	168.9	180.0
Miscellaneous	100.0	100.8	106.0	110.4	113.5	128.1	140.9	148.3	162.2
<u>Annual Increase</u>									
Consumer price index for the Philippines									
All items	3.2	4.8	5.5	2.2	1.3	14.8	21.8	8.2	12.2
Food	5.3	6.1	7.2	1.6	1.1	14.7	29.3	9.1	13.0
Clothing	5.0	5.8	5.8	3.5	2.5	18.7	17.5	14.1	20.4
Rent and repairs	1.5	2.1	2.4	3.7	1.2	5.7	4.9	4.2	5.2
Fuel, light and water	2.7	3.0	0.6	- 0.5	1.2	22.4	19.7	2.4	10.7
Miscellaneous	2.4	2.6	3.5	3.5	1.6	15.8	10.7	5.4	8.8
Consumer price index for Manila									
All items	2.6	5.4	6.3	2.3	2.0	14.4	14.6	10.2	11.0
Food	1.8	9.9	8.3	0.1	1.6	15.3	20.1	13.4	13.4
Clothing	2.6	1.0	4.8	2.6	1.2	29.4	18.6	10.3	17.5
Rent and repairs (housing)	3.3	3.6	3.9	6.2	2.3	9.1	7.5	6.6	6.4
Fuel, light and water	10.0	2.6	0.4	1.1	- 0.2	23.9	12.4	16.7	6.6
Miscellaneous	2.7	0.8	5.2	4.2	2.8	12.9	10.0	5.6	9.0

Source: Central Bank of the Philippines

Table 5.2
Wholesale Price Indices, 1965-1973
 (1965 = 100)

	1965	1966	1967	1968	1969	1970	1971	1972	1973
<u>Indices</u>									
Manila Wholesale Price Indices									
General Index	100.0	104.3	107.0	109.0	111.4	137.7	159.3	175.4	218.4
Domestic Products	100.0	105.0	108.2	111.6	112.8	137.9	160.2	177.0	219.4
Export products	100.0	101.3	107.5	120.4	118.3	146.9	157.5	161.2	248.1
Import products	100.0	100.7	100.8	100.5	103.7	136.3	155.0	166.4	212.9
<u>Annual Increase</u>									
Manila Wholesale Price Indices									
General index	2.2	4.3	2.6	2.7	1.4	23.6	15.7	10.1	24.5
Domestic products	2.7	5.0	3.0	3.1	1.1	22.3	16.2	10.5	24.0
Export products	2.8	1.3	6.1	12.0	- 1.7	24.2	7.2	2.3	53.9
Import products	0.5	0.7	0.1	- 0.3	3.2	31.4	13.7	7.4	27.9

Source: Central Bank of the Philippines

Table 5.3

Wage Indices 1/ 1965-1973
(1965 = 100)

Item	1965	1966	1967	1968	1969	1970	1971	1972	1973 P/
<u>Nominal Wages 2/</u>									
Skilled labor	100.0	105.0	109.9	118.7	125.0	132.8	139.7	146.6	154.5
Unskilled labor	100.0	107.3	112.3	125.0	130.9	145.2	155.0	164.3	168.7
<u>Real Wages 3/</u>									
Skilled labor	100.0	99.6	98.1	103.6	106.9	99.3	91.3	86.8	82.8
Unskilled labor	100.0	101.8	100.3	109.1	112.0	108.5	101.3	97.4	90.4
<u>Real Wages 4/</u>									
Skilled labor	100.0	100.6	102.7	108.9	112.2	96.4	87.7	83.6	70.7
Unskilled labor	100.0	102.8	104.9	114.7	117.5	105.4	97.3	93.7	77.2

Source: Central Bank of the Philippines

1/ Applies to laborers in industrial establishments in Manila and suburbs

2/ This is the 1955 = 100 series shifted to 1965 = 100 series

3/ Money wage rate index deflated by the consumer price index (1965 = 100) in Manila

4/ Money wage rate index deflated by the wholesale price index (1965 = 100) in Manila

P/ Preliminary

Table 6.1

Percent of Total Family Income Received by each Quintile and by the Top 5 and 10 percent of Families, 1956-57, 1961, 1965 and 1971

Families (ranked from lowest income to highest)	Percent of total family income		
	1956-57 a/	1961 b/	1965 b/ 1971 c/
Lowest 20 percent	4.5	4.2	3.5 3.6
Second 20 percent	8.1	7.9	8.0 8.1
Third 20 percent	12.4	12.1	12.8 13.3
Fourth 20 percent	19.8	19.3	20.2 21.0
Highest 20 percent	55.1	56.4	55.4 54.0
Top 10 percent	39.4	41.0	40.0 37.1
Top 5 percent	27.7	29.0	28.7 24.8

Source: National Census and Statistics Office - Survey of Households, Family Income and Expenditures, 1956-57, 1961, 1965 and 1971.

a/ Twelve month period ending February 28, 1957.

b/ Calendar year.

c/ Twelve month period ending April, 1971.

Table 6.3

Regional Population Distribution, Family Income and
Distribution of the Bottom 40 Percent in 1971

Region	1971 Population (mid-year)		Family Income (Pesos)			Distribution of Bottom 40% of Families		
	(million)	%	Mean	Median	C/B (%)	No. of People (Millions)	%	D/A (%)
	A		B	C		D		
<u>Philippines - Total</u>	<u>37.92</u>	<u>100.0</u>	<u>3736</u>	<u>2454</u>	<u>65.7</u>	<u>15.17</u>	<u>100.0</u>	<u>40.0</u>
<u>Northern Luzon</u>	<u>3.39</u>	<u>8.9</u>	<u>2890</u>	<u>1741</u>	<u>60.2</u>	<u>1.87</u>	<u>12.4</u>	<u>55.2</u>
Ilocos	1.87	4.9	3299	1813	55.0	0.98	6.5	52.4
Cagayan Valley	1.52	4.0	2390	1652	69.1	0.89	5.9	58.6
<u>Central Luzon</u>	<u>6.68</u>	<u>17.6</u>	<u>4895</u>	<u>3556</u>	<u>72.7</u>	<u>1.61</u>	<u>10.6</u>	<u>24.1</u>
City of Manila	1.40	3.7	7785	5202	66.8	0.10	0.6	7.1
Central Luzon	5.28	13.9	4127	3119	75.6	1.51	10.0	28.6
<u>Southern Luzon</u>	<u>10.16</u>	<u>26.8</u>	<u>3868</u>	<u>2634</u>	<u>68.1</u>	<u>3.81</u>	<u>25.0</u>	<u>37.5</u>
Southern Tagalog ^{a/}	7.12	18.8	4332	2960	68.3	2.25	14.7	31.6
Bicol	3.04	8.0	2784	1874	67.3	1.56	10.3	51.3
<u>Visayas</u>	<u>9.38</u>	<u>24.8</u>	<u>2818</u>	<u>1930</u>	<u>68.5</u>	<u>4.68</u>	<u>30.9</u>	<u>49.9</u>
Western Visayas	3.86	10.2	3206	2332	72.7	1.50	9.9	38.9
Eastern Visayas	5.52	14.6	2548	1651	64.8	3.18	21.0	57.6
<u>Mindanao</u>	<u>8.31</u>	<u>21.9</u>	<u>3382</u>	<u>2411</u>	<u>71.3</u>	<u>3.20</u>	<u>21.1</u>	<u>38.5</u>
NE Mindanao	3.14	8.3	3062	2186	71.4	1.36	9.0	43.3
SW Mindanao	5.17	13.6	3577	2549	71.3	1.84	12.1	35.6

Source: (A) Population - by interpolating 1970 Census data.

(B) Mijares, Tito A. and I.C. Belarmino, "Some Notes on the Sources of Income Disparities among Philippines Families," Journal of Philippine Statistics, Vol. 24, No. 4, 4th quarter 1973, P xv-xxii.

(C) Distribution of bottom 40 percent of families based on mission calculations using the 1971 household income-expenditure survey data.

a/ Includes part of the Greater Manila Area.

Table 7.1

Selected Characteristics of the Agricultural Sector, 1948-72

Item	1948	1960	1965	1968	1970	1972
1. Harvested area, in thousands of hectares	4,794	7,715	8,252	8,806	8,946	9,387
2. Cultivated area, in thousands of hectares	3,800	5,649	.	.	.	6,486
3. Irrigated cultivated area, in thousands of hectares	400	621	.	.	.	958
4. Rice crop area, in thousands of hectares	2,095	3,252	3,200	3,304	3,113	3,246
5. Area in which irrigated rice was harvested, in thousands of hectares	398	780	958	1,309	1,346	1,332
6. Rice crop area under high yield varieties of crops, in thousands of hectares	—	—	—	684	1,354	1,827
7. Labour employed, in thousands	3,580	4,806	5,267	. 1	. 1	6,250
8. Fertilizer consumption ^{2/} in thousands of metric tons of nutrients	20	70	88	160	190	.
9. Cultivated area per worker (2 ÷ 7)	1.06	1.18	.	.	.	1.04
10. Harvested area per worker (1 ÷ 7)	1.34	1.61	1.56	.	.	1.50
11. Multiple cropping index (1 ÷ 2)	1.26	1.36	.	.	.	1.45
12. Proportion of cultivated area irrigated	0.11	0.11	.	.	.	0.15
13. Proportion of rice crop area irrigated	0.19	0.24	0.30	0.40	0.43	0.44
14. Proportion of rice area under high-yield varieties of crops	0	0	0	0.21	0.43	0.56
15. Fertilizer consumption, in kilograms, per hectare of cultivated land	5	12
16. Fertilizer consumption, in kilograms, per hectare under crops	4	9	11	18	21	.

^{1/} Data for these years are doubtful.

^{2/} Three-year average centered at the year shown; consumption is estimated as the sum of production and imports.

Sources: 1 to 6, 8, Bureau of Agricultural Economics of the Department of Agriculture and Natural Resources; 7, labour force survey of the Bureau of Census and Statistics.

Table 7.2
Comparative Economic Characteristics of Agriculture by Region

Item	Low Income			Medium Income			High		
	Eastern Visayas	Ilocos	Cagayan Valley	Bicol	Eastern Mindanao	Southern and Western Tagalog	Southern and Western Visayas	Central Luzon	Whole Country
Median annual income ¹ of farm households	1,115	1,516	1,527	1,530	1,865	1,973	2,209	2,514	1,818
Density of population per sq. km. ²	148	71	56	168	75	148	79	215	123
Ave. farm size (cultivated area) in hectares ³	1.98	1.04	2.75	3.53	2.75	2.79	3.13	3.34	2.65
Percentage of cultivated area irrigated ⁴	2.3	39.4	24.6	6.2	2.3	12.5	3.4	11.1	51.9
Percentage of palay area irrigated ^{3,4,5}	27.2	56.8	51.7	50.2	41.5	42.8	40.0	23.5	43.1
Intensity of land use area let to tenants ³ :	142	158	152	110	126	139	148	175	141
All crops	32.4	47.1	43.0	42.3	27.4	53.9	20.0	39.0	73.4
Palay	54.1	53.2	48.2	62.1	34.1	69.6	26.4	57.5	74.7
Fertilizer use per hectare, in kg. of elements ⁵ :									
All crops	2.2	40.3	4.8	1.5	3.6	36.8	2.0	22.1	12.0
Palay	8.6	62.8	7.7	4.2	15.8	78.6	8.0	64.2	32.2
Percentage of palay area under improved varieties ⁴	49.9	47.4	41.6	73.4	59.3	57.2	49.5	60.6	56.2
Yield per hectare in metric tons ^{4, 6} :									
Palay	1,059	1,699	1,660	1,447	1,332	1,447	1,426	1,469	2,125
Maize	0.529	0.494	0.912	0.682	0.638	0.897	1.020	0.644	0.533
Percentage of farmers in receipt of credit from institutions ⁷	0.66	2.54	2.65	3.46	2.25	5.27	3.91	3.72	9.41

¹Family income and expenditures survey, 1971, Bureau of the Census and Statistics. ²Population census, 1970. ³Bureau of Agricultural Economics. ⁴Data from National Irrigation Administration. ⁵1966-69 Preliminary data from a survey of the Bureau of Agricultural Economics. ⁶Average, 1969-71. ⁷1970-71 Agricultural Credit Administration, rural banks, Development Bank of the Philippines, Philippine National Bank.

Table 7.3

Size of Farm by Major Crop Category, 1960

Crop	Number of Farms (000)	Area in Farms (000 has)	Average Size of Farm (has)	Percent of Total Area In	
				Farms of 10 Hectares and Over (percent)	Farms Larger Than 200 Hectares
All Farms	2,166.2	7,772.5	3.6	33	8
Sugarcane	17.8	249.4	13.9	80	43
Abaca	36.0	209.0	5.8	49	8
Coconut	440.3	1,938.6	4.4	38	3
Palay	1,041.9	3,112.1	3.0	20	2
Corn	378.8	949.3	2.5	20	1
Tobacco	22.9	38.4	1.7	8	0
Others	228.5	1,275.7	5.6	n.a.	n.a.

Source: National Census and Statistics Office, Census of the Philippines, 1960, Agriculture, Vol. II Summary Report.

Table 7.4
 Number and Area of Farms
 by Type of Land Tenure, 1960

Tenure Status	Type of Land Tenure		Land Area	
	Number of Farms	Percent of Total	Area In Hectares	Percent of Total
Full Owner	967,725	44.67	4,133,276	53.17
Part Owner	310,944	14.36	1,139,956	14.67
Tenant	864,538	39.91	2,000,201	25.73
Manager	2,487	0.11	365,309	4.70
Other Forms of Tenure	20,522	0.95	133,742	1.73
TOTAL	<u>2,166,216</u>	<u>100.00</u>	<u>7,772,484</u>	<u>100.00</u>

Source: Census of the Philippines: 1960 - Agriculture, Vol. II, Summary Report, pp. 8-9, National Census and Statistics Office, Republic of the Philippines, Manila.

Table 7.5

Number and Area of Farms
by Type of Tenancy, 1960

Type of Tenant	Type of Land Tenure		Land Area	
	Number of Farms	Percent of Total	Area in Hectares	Percent of Total
Cash	13,506	1.56	47,008	2.35
Fixed Amount of Produce	34,145	3.95	88,911	4.45
Share of Produce	745,426	86.22	1,677,857	83.88
Cash & Fixed Amount of Produce	693	0.08	3,676	0.18
Cash & Share of Produce	10,847	1.25	34,083	1.70
Rent Free	29,816	3.46	55,918	2.80
Others	30,105	3.48	92,748	4.64
TOTAL	<u>864,538</u>	<u>100.00</u>	<u>2,000,201</u>	<u>100.00</u>

Source: Census of the Philippines: 1960 - Agriculture, Vol. II, Summary Report, pp. 8-9, National Census and Statistics Office, Republic of the Philippines, Manila.

Table 7.6

Production of Selected Crops, Crop Years 1960-1973

Commodity	Thousand metric tons												
	1960	1965	1966	1967	1968	1969	1970	1971	1972	1973			
Food Products													
Rice (rough)	3,740	3,993	4,073	4,094	4,561 ^a / _a	4,445	5,233	5,343	5,100	4,415			
Corn (shelled)	1,165	1,313	1,380	1,490	1,619	1,733	2,008	2,005	2,013	1,831			
Beans and vegetables	228	242	249	253	251	269	333	328	329	371			
Coffee (dry beans)	26	44	43	44	44	44	49	50	52	51			
Cacao (dry beans)	3	4	4	4	4	4	4	4	4	4			
Fruits and nuts	719	1,284	1,313	1,431	1,449	1,448	1,640	1,726	1,808	1,867			
Peanuts (unshelled)	15	13	14	14	15	15	17	19	19	18			
Root crops	1,412	1,537	1,472	1,368	1,305	1,338	1,316	1,221	1,218	1,220			
Other food crops	8	50	52	54	46	49	68	79	87	113			
Export Products													
Abaca	95	134	135	118	103	106	122	105	110	119			
Tobacco	64	46	58	51	65	57	61	56	56	65			
Coconut Products:													
Copra	1,075	1,471	1,485	1,577	1,542	1,516	1,656	1,574	1,703	1,698			
Desiccated coconut	42	63	72	83	51	44	70	105	119	116			
Coconut oil ^{1/}	376	376	657	576	656	566	766	536	604	655			
Copra meal or cake ^{1/}	200	200	263	204	207	195	255	317	387	464			
Sugar Cane Products:													
Centrifugal and muscovado	1,439	1,621	1,460	1,622	1,658	1,663	1,987	2,109	1,870	2,305			
Molasses	369	414	368	406	503	504	608	871	683	886			
Kapok	3	2	2	2	2	2	2	2	2	1			
Maguay	2	3	3	3	3	3	2	2	2	2			
Ramie	2	6	5	4	1	2	3	3	3	3			
Rubber	3	6	6	7	14	18	19	21	22	23			
Other export crops												870	

Source: Central Bank of the Philippines Statistical Bulletin (December, 1973) and Bureau of Agricultural Economics.

^{1/} Calendar year figures.

^{2/} The Inter-Agency Committee on Rice and Corn Production and Consumption (OSCAS, NEC) applied in adjustment factor of 5% to the figure and arrived at the output estimate of 4,788.7 metric tons.

Table 7.7

Relative Contribution of Area and Yield to Total Growth In
Output of Rice, Corn, and Sugar Cane, 1948-69 (Percentage)

Item	Rice	Corn	Sugar Cane
1948-50 to 1958-60:			
Annual growth in output	3.7	6.4	9.3
Proportion of annual growth due to changes in -			
Area	115	114	86
Yield	-15	-14	14
1958-60 to 1967-69:			
Annual growth in output	2.3	5.4	2.2
Proportion of annual growth due to changes in -			
Area	-3	49	140
Yield	103	51	-40

Source: C. Crisostomo and R. Barker "Growth Rates of Philippine
Agriculture, 1948-69" Philippine Economic Journal, Vol. XI.

Table 7.8

Area Harvested by Kind of Crop: Crop Years 1960-1973

Crop	Thousand hectares									
	1960	1965	1966	1967	1968	1969	1970	1971	1972	1973
TOTAL	7,596	8,252	8,297	8,511	8,805	8,919	8,945	9,097	9,389	9,213
Food Crops	6,008	5,995	6,062	6,090	6,400	6,440	6,405	6,345	6,560	6,345
Rice (rough)	3,306	3,200	3,109	3,096	3,304	3,332	3,113	3,113	3,246	3,112
Corn (shelled)	1,846	1,923	2,106	2,158	2,248	2,256	2,420	2,392	2,432	2,325
Beans and vegetables		109	110	103	101	102	112	107	110	115
Coffee (dry beans)	31	44	46	50	49	52	54	54	55	61
Cacao (dry beans)	7	10	9	9	9	9	8	8	7	7
Fruits and nuts		425	407	411	428	424	434	412	436	441
Root crops	289	274	263	252	250	254	252	256	258	266
Other Food Crops	4	11	12	11	11	11	12	13	16	17
Export Crops	1,588	2,257	2,235	2,421	2,405	2,479	2,540	2,753	2,821	2,868
Abaca	175	199	198	186	171	173	173	155	145	163
Tobacco	96	76	86	82	94	89	87	76	78	84
Sugar cane	242	351	315	309	318	343	366	442	441	455
Coconut	1,059	1,605	1,611	1,820	1,800	1,846	1,884	2,049	2,126	2,133
Kapok	3	3	3	3	3	3	3	3	2	1
Magway	3	3	3	3	3	3	3	3	3	3
Ramie	2	3	3	1	2	2	2	2	2	2
Rubber	5	17	16	15	15	21	22	23	25	26
Other export crops ^{1/}	2	0.1	a/	a/	a/	a/	a/	a/	n.a.	n.a.

Source: Central Bank of the Philippines Statistical Bulletin (December, 1973) and the Bureau of Agricultural Economics.

a/ Less than 0.1 thousand hectares.

^{1/} Inclusive of cotton.

Table 7.9

Selected Crop Yields, Crop Years 1960-1971
(Kg/Ha)

	<u>1960</u>	<u>1965</u>	<u>1970</u>	<u>1971</u>
<u>Food</u>				
Palay (sacks of 44 kg)	25.7	28.4	38.2	39.0
Corn (sacks of 57 kg)	11.1	12.0	14.6	14.7
Fruits and Nuts	2,113.0	3,261.6	4,127.4	4,610.0
Citrus	1,893.0	2,476.3	3,322	3,322.9
Root Crops	4,883.1	5,615.7	5,216	4,963.0
Vegetables	2,240.4	4,034.2	4,989	5,355.9
Onions	2,626.2	3,157.1	4,143	3,898.7
Potatoes	3,116.4	6,331.5	6,746	7,571.6
Beans and Peas	540.7	459.6	449*	480.2
Coffee	849.2	995.8	908	912.2
Cacao	463.2	433.7	512	477.7
Peanuts	629.8	547.3	536	580.4
<u>Commercial</u>				
Coconuts (nuts per bearing tree) ^{1/}	44	38	37	32.8
Copra ^{2/}	1,204	988	697	-
Copra ^{1/}	1,015	917	879	768.4
Dessicated coconuts	40	39	37	51.3
Sugarcane	7,468.6	5,805.8	7,088	6,748.4
Abaca	539.3	672.4	707	673.5
Tobacco (Virginia)	661.9	595.7	659	692.1
(Native)	674.8	604.1	726	767.1
Ramie	1,315.8	1,746.8	1,291	1,295.5
Rubber	596.3	349.3	870	905.5
Maguey	725.8	937.2	863	879.3

* Including soybeans

^{1/} Calendar year

^{2/} Coconut Statistics 1971, Vol. VI, No. 2, United Coconut Association of the Philippines

Source: BAEcon, DANR.

Table 7.10

Median Family Income of Farm Households, 1961, 1965, and 1971

Region ¹	Median family income			Ratio to the national median family income of farm households		
	1961	1965	1971	1961	1965	1971
Ilocos	854	952	1,516	0.98	0.74	0.85
Cagayan Valley	752	973	1,527	0.86	0.76	0.86
Central Luzon	1,024	1,449	2,514	1.18	1.13	1.41
Southern Tagalog	1,112	1,997	1,973	1.28	1.56	1.11
Bicol	807	1,297	1,530	0.93	1.01	0.86
Western Visayas	903	1,380	2,209	1.04	1.08	1.24
Eastern Visayas	745	1,002	1,291	0.86	0.78	0.72
Northern and Eastern Mindanao	995	1,293	1,865	1.14	1.01	1.05
Southern and Western Mindanao	687	1,302	1,973	0.79	1.02	1.11
Total Philippines	871	1,281	1,783	1.00	1.00	1.00

¹The city of Manila is omitted since it is too atypically urban.

Source: Computed by the ILO Comprehensive Employment Strategy Mission to the Philippines from the basic data of the Bureau of the Census and Statistics' Family income and expenditures surveys for 1961, 1965 and 1971.

Table 7.11

Fertilizer Use, Outlets and Price by Region

Region	Fertilizer use (percentage) 1964	Average fertilizer use per crop (has.) 1968-69	Distribution of fertilizer outlets No.	No. of outlets per 100,000 has. of crop area 1968-69	Price of fertilizer 1971-72	Price per kg. of palay (rough rice) ^{3/} 1971-72	Fertilizer price ratio 1971-72
Ilocos	(9.0	(10.3	(209	(13.7	1.40	0.58	2.4
Cagayan Valley	(13.5	(17.8	(366	(23.9	1.51	0.57	2.6
Central Luzon	(11.5	(38.2	(305	(19.9	1.33	0.63	2.1
Southern Tagalog	(0.5	(1.3	(71	(4.6	1.38	0.53	2.6
Bicol	(43.1	(22.9	(148	(9.6	1.62	0.52	3.1
Western Visayas	(9.1	(2.9	(123	(8.9	1.33	0.58	2.3
Eastern Visayas	(9.9	(3.0	(91	(5.9	1.62	0.56	2.9
Northern & Eastern Mindanao	(3.4	(3.6	(220	(14.4	1.62	0.57	2.8
Southern & Western Mindanao	(3.4	(3.6	(220	(14.4	1.64	0.50	3.3
Total Philippines	100.0	100.0	1,533	100.0	1.49	0.57	2.6

1/ Excludes the distribution outlets of sugar co-operatives and thus understates the number of fertilizer outlets in Western Visayas.

2/ Price per kilogram of nitrogen (in pesos)

3/ Macan ordinario variety. Pesos per kilogram.

Source: Bureau of Agricultural Economics (BAECON).

Table 7.12

Summary of the Inventory of Irrigation Potential for Rice Areas

Region	Category of area (hectares)			Breakdown of balance 2/						IBRD estimate of additional potential irrigated area 3/ (hectares)	
	Potential rice areas covered by NIA	Total area 1/ covered by NIA	Balance over area covered	Gravity		Pump from surface water		Pump from underground			
				No.	Area (has.)	No.	Area (has.)	No.	Area (has.)		
Ilocos	222,000	20,600	62,917	201,400	214	103,900	88	24,100	175	73,400	42,151
Cagayan Valley	356,000	51,000	98,488	305,000	119	183,000	80	113,000	9	9,000	323,955
Central Luzon	938,000	186,000	354,978	752,000	144	242,000	404	267,000	332	243,000	198,475
Southern Tagalog	309,000	39,500	90,058	269,500	151	175,800	125	38,900	71	55,200	133,821
Bicol	168,000	15,000	48,788	153,000	75	52,900	25	18,200	150	81,900	67,130
Western Visayas	255,000	53,200	75,911	201,800	74	138,000	152	37,000	92	26,800	132,967
Eastern Visayas	169,000	7,500	19,100	161,500	85	88,100	85	22,100	156	51,300	86,241
Northern & Eastern Mindanao	184,000	4,500	16,390	179,500	65	149,500	31	14,600	33	15,400	106,831
Southern & Western Mindanao	515,000	26,000	45,155	489,000	136	441,500	61	22,600	60	24,900	258,470
Total Philippines	3,116,000	403,300	810,732	2,712,700	1,061	1,574,700	1,051	557,500	1,078	580,900	1,350,041

1/ Does not include 90,000 hectares of land irrigated by communal (private) irrigation projects as their regional distribution not known.

2/ Balance includes areas already irrigated under various categories.

3/ IBRD: Agriculture sector survey: Philippines, Vol. II, Annex 3, Table 3

Table 8.1

Per Capita Calorie and Nutrient Supplies, RDA*, and
Consumption in the Philippines: 1970

<u>Nutrient</u>	<u>Supply Available</u>	<u>RDA*</u>	<u>Actual Consumption</u>
Calories	2,097	2,000	1,673
Protein, grams	54.2	50	46.6
Fat, grams	26.4	30	21.9

* Recommended dietary allowances as developed by the
Philippine Government.

- Source: (1) Food availability data were derived by the NEDA Statistics Office and published in The Philippine Food Balance Sheet 1971: NEDA Food Balance Series, No. 1.
- (2) Consumption data are from Carmen Ll. Intengan, "Changes in Food Habits in Relation to Increased Productivity," Philippine Journal of Nutrition, p. 251, 1972.

Table 8.2

Protein/Calorie Deficiencies by Region

	<u>Calories</u> <u>(% of RDA)</u>	<u>Protein</u>	<u>Calories</u> <u>(% of households with less than</u> <u>70% of RDA)</u>	<u>Protein</u> <u>with less than</u>
Manila & Suburbs	90	92	30	20
Southern Tagalog	79	81	23	30
Ilocos - Mt. Province	88	97	16	15
Cagayan Valley & Batanes	81	87	26	21
Eastern Visayas	68	80	47	24
Western Visayas	75	88	38	20
Southwestern Mindanao	74	86	40	16

Source: Nutrition Surveys conducted by the Food and Nutrition Research Center, NIST, NSDB, Manila 1959-69.

Table 8.3

Philippine Calorie and Protein Intakes Compared to Other Asian Countries

<u>Country</u>	<u>Year of Survey</u>	<u>Actual Consumption per day</u>	
		<u>Per Capita Calorie</u>	<u>Protein (grams)</u>
1. Iran	1962-67	2460	68
2. East Pakistan	1962-64	2202	56
3. Japan	1965	2184	71
4. West Pakistan	1962-64	2111	67
5. Korea	1970	2105	66
6. India	1965	1970	51
7. Philippines	1958-67	1673	47

Source: "Review of Food Consumption Surveys in Asia" Elena S. Quioque, Proc. First Asian Congress of Nutrition, National Institute of Nutrition, Hyderabad, India.

Table 8.4

GROSS AVAILABLE FOOD SUPPLY, CALENDAR YEARS 1970 AND 1971
(In 1,000 metric tons, A.P. or as Purchased Basis)

Food Groups	Production		Net Imports ¹		Gross Available Food Supply ²		Percent Increase (decrease)	CY 1971	CY 1970	CY 1971	CY 1970	Percent Increase (decrease)
	CY 1970	CY 1971	CY 1970	CY 1971	CY 1970	CY 1971						
I. Philippines	14,040	13,958	820	1,091	14,860	15,049	(0.6)					1.3
1. Vegetable Origin	11,967	11,819	204	460	12,171	12,279	(1.2)					0.9
a. Cereals	5,589	5,518	449	910	6,038	6,428	(1.3)					6.5
a. Rice	3,582	3,496	(1)	370	3,581	3,866	(2.4)					8.0
b. Corn	2,007	2,022	1	55	2,008	2,077	0.7					3.4
c. Wheat Flour			449 ³	485 ³	449	485						8.0
2. Starchy roots & tubers	1,303	1,301	(28) ⁴	(34) ⁴	1,303	1,301	(0.2)					(0.2)
3. Sugar and syrups	636	716			608	682	12.6					12.2
4. Dry beans & nuts (excl. coconuts)	53	55	3	4	56	59	3.8					5.4
5. Vegetables	1,121	1,145	(3)	(2)	1,118	1,145 ¹	2.1					2.2
6. Fruits	2,124	1,872	(221) ⁵	(422) ⁵	1,903	1,450	(11.9)					(23.8)
7. Fats and oils	110	113	4	6	114	119	2.7					4.4
8. Coconuts for food	160	148	-	-	160	144	(7.5)					(7.5)
9. Miscellaneous	871	951	4	2	871	949	9.2					9.0
II. Animal Origin	2,073	2,139	616	631	2,689	2,770	3.2					3.0
1. Meat and Poultry	568	575	6	7	574	582	1.2					1.4
2. Fish and other marine products	1,360	1,405	52	53	1,412	1,458	3.3					3.3
a. Fish	1,162	1,198	49	51	1,211	1,249	3.1					3.1
b. Crustaceans	72	77	4	4	72	77	6.9					6.9
c. Mollusks	126	130	3	2	129	132	3.2					2.3
3. Milk (Whole)	25	26	558	571	583	597	4.0					2.4
4. Eggs	120	133	4	4	120	133	10.9					10.8

¹Total import minus export. ²Production plus net imports. ³Imported wheat flour plus wheat flour manufactured locally from imported wheat grains and other cereal products. ⁴Less than 500 metric tons. ⁵Fresh fruits equivalent of exported canned fruits and other fruit preparations after deducting the amount of imported fruits.

Source: The Philippine Food Balance Sheet: 1971, NEDA.

Table 8.5

Net Available Food Supply for Human Consumption
Calendar Years 1970 and 1971
(In 1,000 metric tons, A.P. or As Purchased Basis)

Food Groups	Gross Available food supply		Non-Food utilization ^{1/}		Net Available for human consumption ^{2/}		Percent Increase (decrease)	CY 1971 percent distri- bution
	CY 1970	CY 1971	CY 1970	CY 1971	CY 1970	CY 1971		
Philippines	<u>14,860</u>	<u>15,049</u>	<u>947</u>	<u>1,205</u>	<u>13,465</u>	<u>13,378</u>	(0.6)	100.0
1. Vegetable Origin	<u>12,171</u>	<u>12,279</u>	<u>913</u>	<u>1,169</u>	<u>10,810</u>	<u>10,644</u>	(1.5)	79.6
1. Cereals	6,038	6,428	530	539	5,060	5,423	7.2	40.5
a. Rice (milled)	3,581	3,866	117	117	3,464	3,749	8.2	28.0
b. Corn (shelled)	2,008	2,077	409	413	1,151	1,198	(4.1)	9.0
c. Wheat flour	449	485	4	9	445	476	7.0	3.5
2. Starchy roots and tubers	1,303	1,301	214	493	1,089	808	(25.8)	6.0
3. Sugar and syrups	608	682	-	-	608	682	12.2	5.1
4. Dry beans and nuts (excl. coconuts)	56	59	3	3	53	56	5.7	0.4
5. Vegetables	1,118	1,143	56	57	1,062	1,086	2.3	8.1
6. Fruits	1,903	1,450	106	73	1,797	1,377	(23.4)	10.3
7. Fats and Oils	114	119	2	2	112	117	4.5	0.9
8. Coconuts for food	160	148	2	2	158	146	(7.6)	1.1
9. Miscellaneous	871	949	-	-	871	949	9.0	7.2

Net Available Food Supply for Human Consumption
Calendar Years 1970 and 1971
Continuation

Food Groups	Gross Available Food supply		Non-Food utilization ^{1/}		Net Available food supply for human consumption ^{2/}		Percent Increase (decrease)	CY 1971 percent distribution
	CY 1970	CY 1971	CY 1970	CY 1971	CY 1970	CY 1971		
II. Animal Origin	2,689	2,770	34	36	2,655	2,734	3.0	20.4
1. Meat and poultry	574	582	-	-	574	582	1.4	4.4
2. Fish and other marine products	1,412	1,458	25	26	1,387	1,432	3.2	10.7
a. Fish	1,211	1,249	23	24	1,188	1,225	3.1	9.2
b. Crustaceans	72	77	1	1	71	76	7.0	0.5
c. Mollusks	129	132	1	1	128	131	2.3	1.0
3. Milk	583	597	-	-	583	597	2.4	4.4
4. Eggs	120	133	9	10	111	123	10.8	0.9

^{1/} Includes animal and poultry feeds, seeds, waste, non-food manufacture and other by products in the milling of corn.

^{2/} Gross available supply minus non-food utilization.

SOURCE: The Philippine Food Balance Sheet: 1971, NEDA

Table 8.6

Daily Recommended Per Capita Food Allowance in Comparison With
Daily Per Capita Food Supply, Calendar Years 1970 and 1971
(In grams, A.P. or as Purchased Basis)

Food Groups	Recommended allowance per capita per day ^{1/} (A.P.)	Food supply available for consumption per capita per day (A.P.)		Percent Increase (Decrease)	CY 1971 percent of sufficiency
		Calendar Year 1970	Calendar Year 1971		
Total per caput	<u>1,207</u>	<u>1,001.7</u>	<u>965.7</u>	<u>(3.6)</u>	<u>80.0</u>
I. Vegetable Origin	<u>845</u>	<u>804.4</u>	<u>768.8</u>	<u>(4.4)</u>	<u>91.0</u>
1. Cereals	<u>324</u>	<u>376.2</u>	<u>391.9</u>	<u>4.2</u>	<u>121.0</u>
a. Rice (milled)	-	257.5	270.7	5.1	-
b. Corn (shelled)	-	85.5	86.6	1.3	-
c. Wheat flour	-	33.2	34.6	4.2	-
2. Roots and tubers	80	81.2	58.2	(28.2)	72.8
3. Sugar and syrups	33	45.2	49.3	9.1	149.4
4. Dry beans and nuts (excl. coconuts)	20	4.1	4.1	(2.4)	20.5
5. Fruits and vegetables	<u>359</u>	<u>213.0</u>	<u>177.7</u>	<u>(16.5)</u>	<u>49.5</u>
a. Leafy and yellow vegetables ..	105	27.1	27.5	1.5	26.2
b. Vitamin C-rich foods	115	22.9	27.4	20.1	23.8
c. Other fruits and vegetables ..	139	163.0	122.8	(24.7)	88.3
6. Fats & oils (incl. fats from coconuts)	29	9.5	9.72/	2.1	33.4
7. Coconuts for food (excluding fats)	-	10.5	9.4	0.0	-
8. Miscellaneous	-	64.7	68.5	5.9	-
II. Animal Origin	<u>362</u>	<u>197.3</u>	<u>196.9</u>	0.2	54.4
1. Meat and poultry	172	145.9	145.2	(0.5)	84.5
2. Fish and other marine products) ..	173	43.2	43.0	(0.4)	(24.9)
3. Milk and milk products	17	8.2	8.7	6.1	51.2
4. Eggs					

Source: NEDA Re Philippine Food Balance Sheet, 1971, NEDA

- 1/ Recommended allowance based on E.D. edible portion converted to A.P. (as purchased basis). Data on recommended allowance are still tentative subject to final revision by the Food and Nutrition Research Center NISI, NSDB. Data obtained from Figure 2, page 65, Philippine Journal of Nutrition, Vol. 22, 1969.
- 2/ Containing about 99 grams of pure fats per 100 grams A.P. or equivalent to 9.4 grams pure fats.