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I. ANALYTICAL DESCRIPTION OF THE POOR MAJORITY

A. Income and Employment

USAID/Paraguay has selected two major groups within the poor majority as targets for Mission assistance: farm families with holdings of twenty hectares or less, and rural families who work in crafts and small industries. We estimate these groups contain more than one million of the rural poor, drawn mainly from 140,000 farm families with small land holdings, and 63,000 families dependent on employment in crafts and small industry outside of Asunción. This selection is based on data from the Small Farmer Sub-Sector Assessment (1976) and from a 1974 study conducted by the United Nations and the Government of Paraguay (GOP), in both cases the most current data available.

Income distribution in Paraguay is not well-documented. The best information comes from a study conducted in 1973 by a private development institute using data from the Central Bank, the national census and other survey sources. The study estimated that 72% of Paraguay's population had average annual per capita incomes of $175 or less and should be considered poor. The study further recommended that 82% of the rural population be classified as poor. 1/

By mid-1978 the Mission should be able to better define the poor majority. Analysis of information from a sample survey of 1,400 small farmers should be completed, along with a survey of rural women which we expect to initiate with the assistance of PHA/POP.

B. Land Holdings and Tenure

A unique characteristic of Paraguay is its low population density in relationship to arable land. Because of the historic ease of access to land, concern over tenure and clear titles, until recently, has not been an issue. However, as the country develops, land becomes more valuable and land titling becomes more necessary. Few of Paraguay's small farmers obtain clear legal titles because the land registration office is located in Asunción, necessitating travel to the capital. Instead, a variety of "common law" practices has evolved to assign and transfer property rights at the local level. As might be expected, sharp conflict often results over contested land claims. The GOP plans to address the land title problem by decentralization of property registration and by legalization of titles established by common usage, thereby providing security of tenure and encouraging small farmers to make improvements on their land. Lack of titles encourages inefficient practices because few

1/ Flecha, Agustín Oscar, "Distribución de Ingreso y Subdesarrollo", Instituto de Desarrollo Integral y Armónico, Asunción, 1975, p.63.

small farmers will make necessary investments in soils improvement and machinery without a clear land title.

The Small Farmer Sub-Sector Assessment found that farmers with holdings of up to twenty hectares can cultivate only seven hectares at any one time because of labor and technological constraints. Apparently, there is no shortage of arable land in Paraguay. Even in the Central Zone where about half of the country's small farmers are concentrated, any able-bodied family through a combination of ownership, renting, borrowing or expropriation can find the seven hectares needed to fully occupy family labor during the peak periods of soil preparation, planting and harvest. Moreover, the GOP helps satisfy the small farmers' demands for land by opening up previously uncultivated lands for colonization.

C. Non-Economic Constraints to Development

The strength of the family system, the influence of the Guaraní language and the limited world view, which results from the existing transportation/communication system, influence the ability of the rural poor to participate in developmental activities. These constraints operate in an integrated manner, and their cumulative effect is to encourage conformity with traditional values. The family system is largely a product of subsistence agriculture, the economic mode of production which predominated in Paraguay well into the 20th century. Social relations (e.g., extended family and division of labor engendered by this agricultural system) continue even though the pattern of agriculture is changing. Consequently, large families and complicated familial ties still characterize the family structure. The average number of children per family unit is six. The dependency ratio is high, and large families often hinder the advancement of the rural poor. Although the economic burden of the family system is somewhat offset by certain supportive functions, such as loans of cash, goods and labor among family members, the social cost of large families, and especially the drain upon the health and energies of rural women, is great.

Related to the division of labor in the family system is the socially-perceived "proper role" for women. Sex-role stereotypes limit the realm of activities of rural women, thereby depriving the country of full female economic input because women remain underutilized.

Another functional constraint among the poor is the widespread lack of language facility in Spanish. The first language of the countryside is Guaraní. Consequently, the rural poor are handicapped in interactions with educational, political, and economic institutions

relative to townspeople who are generally more conversant in Spanish. Children of the rural poor have to overcome limitations, as well as economic barriers, to become educated because Spanish is the official language of the school system.

The lack of an integrated transportation and communication system is a major constraint. Campesinos often have to walk hours to reach public transport in order to market goods, obtain supplies, visit a medical facility, etc. Travel may be very time-consuming and may require great outputs of energy. Moreover, campesinos have limited access to information sources. The government radio system is not yet well-utilized as a public service medium, although there are a few information/instructional programs. Most information in rural areas is passed by word of mouth and through public presentations by extension agents and other public servants. Little printed information is available. There are no local newspapers outside of Asunción, although Asunción publications are carried daily along the main traffic arteries.

Paraguayan development efforts are also hampered by the prevailing "emigration mentality." One prominent Paraguayan sociologist maintains that emigration has become an institutionalized response to endemic socio-economic problems. The exodus of Paraguayans in the past twenty-five years has reached sizeable proportions. One-quarter of the country's population are estimated to be living outside of Paraguay. The tide of emigrants includes not only manual laborers, but also intellectuals and professionals who leave to seek personal and career satisfaction, resulting in a "brain drain." Thus, development efforts are hindered by this continual drain of the country's human resources, often the more enterprising of the rural and urban population.

D. Participation in the Development Process

Members of the poor majority have some role in implementing government policies which seek to improve the well-being of the rural population and increase agricultural production. Participation occurs primarily at the community level through municipal activities and through contact with the government's educational, agricultural and colonization programs.

Decision-making occurs on the local level in relation to the implementation of government policy, rather than in the determination of policy. Inputs into policy-making occur through intermediaries such as municipal officials, extension agents, teachers, health personnel and other government agents which have offices in small towns. In this way, expressed needs of the lower echelons are channelled upward through the GOP structure. Decision-making on policy matters occurs primarily at higher levels of government.

A dramatic example of the role of the rural poor in decision-making and implementation of government programs is in resettlement or

colonization. To date some 88,600 families have been settled through the colonization process. Settlers participate at their own initiative and are involved in the creation of basic infrastructure such as roads and other community projects. Such activities clearly help to implement the government's development objectives.

Throughout rural Paraguay, campesinos join road- and bridge-building/repair committees and support other community activities by contributing money or labor. Involvement in municipal/community organizations often occurs under the auspices of the Municipal Development Institute (IDM), a semi-autonomous agency of the central government which assists municipalities with financing, training and advice. Since its creation in 1973, IDM has worked with the 170 municipal governments outside of Asunción to improve local government operations, and to assist in the selection and financing of community projects. To date, over 150 self-supporting projects have been initiated. Local communities, for instance, often pool their financial and labor resources to put up a new school building, municipal center or other public facility.

Farmers and other rural residents may be members of production and marketing cooperatives which, while not government bodies, promote government development policies, such as production, for export. A cooperative federation (CREDICOOP) chartered in 1973 provides technical assistance, marketing services and savings and credit facilities to 10,000 small farmer members. CREDICOOP now plans to extend loans to artisans and small businessmen in rural areas to promote the local production and also plans to provide assistance to cooperative organizations for the processing of small-farm crops. Membership in CREDICOOP allows the rural poor to select undertakings which they feel offer them opportunities.

Both CREDICOOP and IDM were created through USAID/Paraguay projects and are disbursing A.I.D. loans. Although they have independent sources of funds for lending, they can also assist interested groups in obtaining credit from other sources, such as the Central Bank and other donor programs.

Some members of the poor-farm strata help implement the government's agricultural objectives by cooperating with the agricultural extension and research program. However, this program probably has direct contact with less than 6% of all small farmers in the country, and marginal farmers probably receive little assistance. Wider participation is found in government-sponsored parent-teacher chapters through which rural residents have some decision-making input and assist in local educational implementation.

II. SECTOR ASSESSMENTS

A. Agriculture

1. Review of the National Goals and Plans

In its recently published Five-Year Plan for 1977-1981 the Government of Paraguay (GOP) stated the following general objectives for agricultural development:

a. Increase production and improve quality,

b. Improve the well-being of the rural population and

c. Promote the rational use of natural resources.

More specifically, the Plan seeks to increase the amount of land under cultivation, rationalize the use of resources at the farm level, increase the capitalization of farms and assure an adequate marketing system, including harvesting techniques, on-farm handling, transport, storage and the participation of intermediaries.

These sector objectives appear reasonable and consistent with A.I.D.'s focus on the poor majority, although the Plan does not target directly on the poor. Increased agricultural production should benefit the rural poor through increases in income and, over the longer run, through more goods and services provided by the public sector. Greater production should also mean more employment opportunities, both on-farm and off-farm. As for the Plan's third objective, we strongly support better use of the country's natural resources as a means of protecting Paraguay's future.

2. Outreach and Effectiveness of Paraguay's Agricultural Program

Primary responsibility for agricultural programs is concentrated in the Ministry of Agriculture (MAG). The MAG's work relates to the poor majority through export promotion, agents from the agricultural extension service (SEAG), credit offered through CAH (Crédito Agrícola de Habilitación) and programs under the Instituto de Bienestar Rural (IBR), which deals with land reform and settlement.

The MAG has been particularly successful in promoting cotton and tobacco, crops produced primarily on small farms. Fifteen years ago small farmers played a minor role in export production, but today they are major participants. In 1976, cotton and tobacco exports earned $34.6 million and $14.7 million respectively, whereas in 1961 no small-farmer produced crop earned more than $1.5 million.

While it is not possible to estimate the extent to which increased export production is the result of MAG promotion, rather than a function of high world market prices, the land, credit and technical assistance provided under MAG auspices were undoubtedly important factors. Based on the success of its efforts in cotton and tobacco, the Ministry is preparing more intensive national commodity programs for four additional crops: soybeans, corn, rice and wheat. Corn is a small-farmer-grown crop, as to a lesser degree are soybeans and rice.

SEAG now has 183 extension agents, operating out of 76 field offices. In the 1977-1981 time period the MAG estimates that only 7,750 farmers per year will receive direct assistance from SEAG. However, assuming a multiplier effect of five farmers learning from each farmer reached by an extension agent, a rate indicated by a USAID/Paraguay study, the role of SEAG personnel as change agents gains importance. The MAG has begun transmitting market information through regular radio broadcasts as another outreach effort. CAH now provides credit to about 4,000 small farmers, with annual increases registered in the number being served.

The IBR is invested with broad policy-making authority in land reform, settlement and rural welfare. Since its creation in 1963, IBR claims to have settled 88,600 families. The chief purposes of the colonization effort are to bring more land under cultivation, to settle the country's eastern border and to decongest the crowded minifundia region. Farmers moving to colonization areas have access to greater quantities of land and, in successful colonization areas, better quality than was available on their previous farms.

3. Critical Constraints to Agricultural Development

The Mission has selected the following constraints as priority development problems:

a. The low productivity of land and labor - which reflects the level of agricultural technology and the undercapitalization of farms. We plan to treat this constraint through the development and extension of appropriate technology, through programs which extend credit to small farmers, through crop intensification research and promotion aimed at the minifundia and through programs that assist small farmers in identifying and utilizing the best land resources available.

b. The poor use of human and natural resources - seasonal underutilization of labor and low skill levels characterize the rural poor. Moreover, the rural population is concentrated on the depleted soils of the Central Zone's small farms. Throughout the country, few farmers have clear title to their land. The GOP's resettlement program

is a sound solution to population pressure and brings new lands under cultivation; but it is an expensive process, and there has been a striking lack of location planning. To assist the GOP to make more effective use of its human resources, we support training activities to upgrade skills, promote projects which should lead to off-farm employment and plan to work with labor-intensive crops. We plan to assist in the reorganization of the property registry office as a first step toward rationalization of land resources. We also plan to assist in a survey of soil and water resources with the national planning office, which should provide the basis for better resource use.

c. The inadequate marketing structure - The present marketing structure perpetuates a system of unfair pricing and excessive costs for handling, transportation and storage. The Mission plans a marketing project for planning and implementing a national marketing strategy which will work to overcome these problems and allow small farmers to receive more equitable prices for crops marketed.

d. The agricultural data base is weak - which inhibits GOP and donor planning. All Mission projects in the agricultural sector include information gathering and analysis as components. We expect the projects listed above to make major contributions to improving the data base. Under the FY 1978 sector loan, the MAG's planning office will receive assistance. We also plan a survey of rural women, whose role in the agricultural sector has thus far been largely ignored.

e. The Ministry of Agriculture is underbudgeted - which limits its ability to meet its responsibilities. We plan in our FY 1978 sector loan to provide loan funds to restructure research and extension activities and as a means of establishing adequate GOP budgets for the Ministry.

4. Other Donors

The impact of foreign assistance in Paraguay comes not only through financial support, but also through the choices of projects and the advice given in the development and implementation of programs. Major loan assistance for agriculture is provided by the World Bank, the Inter-American Development Bank (IDB) and A.I.D. In the last seven years, donor loans for agriculture amounted to about $60 million, 29% of all loans extended. Paraguay also receives support from the United Nations, the Organization of American States and the Governments of Germany, Japan, Nationalist China, Great Britain and Switzerland, mainly in the form of small grant projects concentrated on the diffusion of technology. A.I.D. exerts a constructive influence on other donor programs; there is evidence of increased concern for small farmers on the part of other agencies.

The World Bank has just provided $22 million in an integrated colonization loan for agricultural credit and infrastructure, including roads, schools and health posts. The IDB has supported an integrated development project which includes vocational education, marketing infrastructure and equipment. A follow on loan of $19 million is under consideration, as are projects of $6.3 million for a national storage system, $9.6 million for colonies and $4.3 million for the control of livestock diseases, especially hoof and mouth.

5. Program Goals and Approaches

The Mission's program goals were selected based on the findings of the small-farmer subsector assessment, current AID/W guidance, review of Paraguay's National Development Plan, discussions with MAG officials and, in particular, joint planning with the MAG's technical planning cabinet.

The three primary A.I.D. program goals for the 1978-1982 period are:

a. Increase income from agricultural employment--approach is to promote development of labor-intensive crops, appropriate technologies and improved marketing and credit channels, to facilitate colonization and to rationalize the use of resources at the farm level (e.g., land titles and registration project and the natural resources survey).

b. Increase opportunities for off-farm employment--approach is to promote rural community development projects, agroindustrial enterprises (processing and packaging) and credit expansion.

c. Increase benefits from public sector goods and services--approach is to expand the extension and research services of the MAG; to improve the quality of goods and services promoted in rural areas by cooperation with national and international research institutes, the Central Bank, the National Development Bank, field research teams and community improvement groups; to improve the rural road network and to fund infrastructure requirements in colonization areas.

B. Population

1. National Goals

The Government of Paraguay has no population policy, and it is not likely that a policy will be formulated within the near future. Despite the absence of national population goals, the Ministry of Health (MOH) is implementing one of the most vigorous public sector family-planning programs in Latin America. The Ministry believes that family-planning services should be an integral part of health services offered to the rural poor.

The demographic consequences of family-planning services are not discussed in GOP documents. Government planning documents do not focus on the socio-economic consequences of the current population growth rate of about 3%, a rate above the Latin American average of 2.8%, and a figure that would be viewed with alarm in many other countries. There are a few understandable reasons for the lack of concern. The country's population density is low, and large amounts of arable land are still available for settlement. Paraguay historically has believed that population growth is desirable and has welcomed immigrants and encouraged large families. Although the population is increasing faster than the country's ability to provide employment and basic services, such as education and health care, ideas persist that the country is underpopulated and that more people are needed to take part in Paraguay's development.

There is, however, a sharp difference between the national attitude, which favors population growth, and personal attitudes, which must take into account what the addition of each child means to levels of family health and income. It is at the personal decision level that family-planning services operate and have enjoyed considerable acceptance. Physicians and other health workers have been supportive of family planning because of their appreciation of the relationship between excessive childbearing and maternal and child morbidity/mortality. Political resistance to inclusion of family planning as a basic health service has diminished greatly over the past five years.

2. Outreach and Effectiveness of Family-Planning Services

AID is the major donor in this field and has been active since FY 1969. Our counterpart organization, the Department of Family Protection (DEPROFA) of the MOH, was created in 1972 to direct and coordinate family-planning activities. DEPROFA maintains its own central office staff, which is supported by USAID funding, while family-planning services are delivered by health personnel assigned to the hospitals, health centers and health posts of the MOH network. Although the DEPROFA central office is dependent on

USAID funding, the MOH meets most of the costs of services at the clinical level through funds budgeted for the country's eight health regions. By the end of 1976, DEPROFA had organized services through 43 health facilities and had initiated pilot community-based distribution programs including a condom-distribution activity within the Armed Forces. 1977 promises to be a year of major expansion. Training courses are scheduled throughout the country's health regions, and by year's end, 263 MOH health facilities are expected to be offering family-planning services. This extension of services is being financed largely by the MOH. DEPROFA intends to initiate a household distribution of contraceptives and selected health medicaments activity. Although the primary purpose of the activity is to test different delivery systems in three areas of rural Paraguay, it is also a first step in the legitimization and systematic development of a nation-wide pattern of minimally-trained, peripheral community health workers. The project will utilize non-salaried indigenous rural midwives (parteras empíricas), health promotoras and condom distributors. Parteras and promotoras will receive instruction in simple enteric treatments, rehydration and medicinal treatment of infant diarrhea and in the relief of symptoms of common illnesses. All parteras will receive instruction in improved midwifery practices. The three types of delivery agents will visit households and provide contraceptives or medical treatment without any requirement that the recipient visit a clinic prior to receiving supplies. If this carefully controlled activity demonstrates to the MOH that delivery of oral contraceptives can be liberalized without adverse reaction, it may be possible to remove a significant barrier to widespread availability, since 72% of new FP acceptors in 1976 chose orals.

The other program of importance is a network of private clinics operated by the Paraguayan Center for Population Studies (CEPEP), an affiliate of the International Planned Parenthood Federation (IPPF). IPPF supports 27 CEPEP clinics which offer education on responsible parenthood, family-planning services and maternal and child health care. Also, a small private program is operated by a church-supported clinic under the auspices of Misión de Amistad.

According to a recent study by the Center for Disease Control (CDC, under the U.S. Department of Health, Education and Welfare), after adjusting reported figures to eliminate overcounting, the three programs had a total of 55,047 active users as of December, 1976, representing 9.8% of total women between the ages of 15 and 44 and 19.3% of married women within the same age group. By program, adjusted figures for acceptors were: DEPROFA (31,564), CEPEP (19,983) and Misión de Amistad (3,500).

Contraceptives are legally imported into Paraguay and are available through pharmacies in larger population centers. If the

estimated 35,000 users of commercial contraceptives are included in calculations of contraceptive prevalence, over 30% of women, aged 15-44, in a marital or consensual union are thought to be active contraceptors.

A contraceptive prevalence survey was initiated in February, 1977, with the technical assistance of CDC to evaluate the effectiveness and outreach of family-planning activities. With 1972 Census data available as a baseline, the survey is a mechanism for monitoring a decrease in the birth rate. It will also provide estimates on abortion incidence and hospitalization, unwanted pregnancy and status of contraceptive use in both the public and private sectors. USAID knowledge of the outreach and effectiveness of family-planning activities will be expanded considerably when survey results are available in late 1977.

3. Critical Constraints

We have selected the following priority development problems:

a. The GOP has no population policy and views family planning as a health program;

b. The GOP has limited revenues and budgets only $2.50 per capita for the MOH;

c. The limited outreach of family-planning services;

d. Cultural factors which encourage large families (children supply security in old age, labor for the family farm, psychic satisfaction, etc.).

4. Other Donors

The amount of donor support seems to be adequate and without duplication of effort. IPPF provides more than $300,000 per year to CEPEP; UNFPA and UNICEF currently are providing $83,000 for a pilot integrated health project; Pathfinder Fund supports the integration of family planning in the Medical Faculty curriculum and a pilot rural community-based family planning activity; Development Associates funds training courses with emphasis on paramedicals; and the Program for International Education in Gynecology and Obstetrics (PIEGO) is training physicians in advanced techniques of fertility control.

5. Future Programs

USAID is optimistic because of recent trends in program performance and feels that the MOH is making serious efforts, within the constraint of an inadequate budget, to provide family-planning services as a part of basic health care. The MOH is attempting to improve program outreach through experimentation in non-clinical delivery system and greater use of auxiliary personnel. In recent years the MOH has increased its contribution to the seven health regions of Eastern Paraguay for support of family-planning services without increasing its support for the DEPROFA central office. The Mission Director has discussed with the Minister of Health our concern over the low level of GOP budget support for DEPROFA and has stated that unless there is a significant increase in DEPROFA's budget in 1977, USAID must begin to phase out its assistance in 1978. The GOP must decide if it intends to continue DEPROFA with its own funds. USAID plans to develop a new population project with DEPROFA, if GOP funding makes it viable, or with an alternative entity designated by the MOH.

Our strategy for assisting the GOP to respond to population problems include the following:

a. Family-planning services: development of non-clinical delivery systems and improvement in management of clinical services;

b. Population planning: promotion of activities to create awareness of population issues among national leaders and placement of population growth in the context of national planning;

c. Data base: assistance in preparation of surveys to measure demographic and socio-economic characteristics of the population and

d. Information, Education and Communication: to increase popular awareness of and acceptance for family planning.

6. Program Goals

Our population sector goal is to reduce the national fertility rate, which will enhance the possibilities for success of other development programs aimed at lower-income groups. The crude birth rate was about 41 per 1000 in 1972; current projections suggest that the rate will drop to 35 per 1000 by 1980. We would expect that the crude birth rate will be under 30 per 1000 by 1985, and that over 30% of women of fertile age will be using a contraceptive method.

The program goal is related closely to our overriding goal of permanent improvement in the standards of living and future prospects of targeted low-income families. Work toward the program goal will be through the strategem of strengthening the socio-economic infrastructure (institutions) in rural areas.

7. Amount of U.S. Assistance Required

We estimate that $2,500,000 in grant funds will be required to support population activities from FY 1979 through FY 1983. This figure includes provision of centrally-procured contraceptives.

C. Health

Although A.I.D. and its predecessors were once active in Paraguay's public health field with assistance in the form of loans for a malaria-control program, a potable water system in Asunción, construction of both urban and rural health facilities and a grant project to assist the National University's Faculty of Medicine in curriculum development and training, we have not worked in the health sector in recent years. We are interested in renewing our assistance in public health in response to a request for support from the Ministry of Health (MOH) which appears to be in compliance with the Congressional Mandate and related guidance.

USAID/Paraguay faces an obvious problem in that no A.I.D. health sector assessment has been conducted to describe health problems, evaluate GOP programs and chart a course of action. Therefore, we are requesting AID/W's assistance in conducting an assessment in late CY 1977, or as soon thereafter as possible, to determine what role, if any, we should play in the health field. But while we recognize the lack of information on the extent and severity of the country's major health concerns, we believe that there are some basic problems which are so apparent that we are including in this paper a general proposal for a project, based on the Ministry's request.

The Pan American Health Organization (PAHO) collaborated with the MOH in preparation of a national health assessment in 1975 which serves as the basis of current health plans. From the GOP's health program and other information at hand, we present the following discussion:

1. National Goals

The MOH's National Health Plan for 1976-1980 has as its goals:

Increasing life expectancy;

Extending the coverage of health services to include all of country's population.

Twelve objectives, ranging from provision of potable water for rural communities through training of health personnel, are listed in support of these goals.

While the plan may be a substantial overstatement of what can be accomplished in five years, given the MOH's personnel and budget limitations, its goals and objectives appear to be well-founded

and appropriate to Paraguay's needs. In most instances, objectives are matched by sub-programs which establish yearly targets, assign institutional responsibilities for activities directed toward objecttives and provide a means of verification that the objectives are being accomplished. We find the plan acceptable, though it is ambitious and at times vague.

2. Effectiveness and Outreach of Current Systems

Impressive advances have been made in the area of public health. The MOH cites as examples the facts that smallpox has been eliminated, the incidence of scarlet fever is greatly reduced, yellow fever is rare and malaria has virtually ceased to be a problem in the eleven most populated departments of Paraguay. Health figures indicate that life expectancy has increased from 58 years in 1969 to 61 years in 1976. On the other hand, access to public-health services is limited, particularly in the rural areas, and Paraguay lacks health personnel.

The emphasis of the MOH is on an integrated health program which is administered through a system of eight health regions, with special sub-programs for the control of tuberculosis and leprosy and the promotion of rural social action. The program currently has 2,570 salaried positions which claim 45% of the MOH budget for 1977; the program's total share of the MOH budget is 55%. Some 90 health centers and 160 health posts serve rural areas.

3. Constraints

a. Budget

The MOH does not have funds to implement its activities at the levels necessary to satisfy the country's health needs. With a population now estimated at 2,700,000, the MOH's share of the national budget for 1977, $6,768,472, allows for a per capita expenditure of only $2.51, a figure far below the requirements of the National Plan.

b. Personnel

There are not enough health personnel, too many are concentrated in Asunción, and too many doctors leave Paraguay after receiving training. According to the National Development Plan (Volume I, pp. 191-193), since the founding of the National University, its Faculty of Medicine has graduated 1,690 doctors; some 55.8% practice in Asunción, 14.9% practice outside the capital and 29.3% have left the country. From the classes of 1964, 1965, 1968 and 1970, 45% of the graduates left Paraguay. The concentration of doctors in Asunción causes a serious imbalance in medical coverage. Although the national ratio is 4.58 doctors

for 10,000 inhabitants, there are 21 doctors per 10,000 in Asunción and only 1.2 per 10,000 in the rest of the country. Eighty per cent of Paraguay's dentists practice in Asunción, and 41.1% of the country's health technicians and nurses work in the capital. MOH services outside Asunción must depend heavily on nurses, para-professionals and volunteers.

a. Lack of Information

The National Plan presents the following information on mortality, with the qualification that its data base is weak:

Mortality Rates, 1968 and 1973

	1968	1973
Mortality per 1,000	12.9	9.2
Maternal mortality per 1,000 births	6.5	4.6
Mortality before 1 year of age, per 1,000 live births	101.7	84.2
Mortality between 1 and 4 years (%)	12.4	6.3
Total mortality before reaching five years of age (%)	38.3	17.0

Source: Plan Nacional de Desarrollo Económico y Social, Vol. I, p. 185.

The above figures suggest dramatic improvements in public health standards in the five-year period, 1968-1973. No explanation is given, however, for the declines in mortality rates. The suggestion that child mortality has been cut by more than one-half must be viewed with caution. Given the lack of systematic data collection of vital statistics in Paraguay, it is difficult for anyone to speak with authority on the seriousness of Paraguay's health problems, especially what appears to be a high infant mortality rate. But the causes of infant mortality are generally agreed upon. The primary cause of mortality in children less than five years of age is diarrhea-induced fatalities, followed in order of declining frequency by pneumonia, malnutrition and parasitic infections in the intestinal tract, according to the information supplied by the Ministry of Public Health. For infants of less than one year of age, injury at birth, prematurity and tetanus are the chief causes of death, although unsanitary conditions and inadequacy of diet also contribute to infant mortality.

Although precise data on the incidence of infant mortality does not exist, it can be assumed that the health of children in rural Paraguay can be improved greatly by upgrading sanitary conditions. The information also suggests that mortality rates from easily-treated or preventable diseases is unacceptably high. First and foremost among the measures which can be taken is the provision of safe drinking water. The World Health Organization considers the provision of a safe and convenient water supply "the single most important step" in improving the health of rural infants and children, and in significantly reducing the incidence of infectious diseases such as diarrhea, amoebic dysentery and others.

d. Priority Development Problems

Paraguay lacks a health infrastructure, including an adequate number of rural clinics and health posts, as well as sources of potable water.

The rural poor, particularly those in widely-dispersed areas of low population density, lack sufficient numbers of trained medical and para-medical personnel.

Information on health problems is incomplete.

4. Other Donors

The UN is funding a small pilot project in integrated maternal/child care and family planning. PAHO supports a variety of training programs. IDB has provided a loan to finance potable water in nine towns in the interior and is providing technical assistance for a study which may lead to a loan for rural health facilities. The German Government is considering a loan for potable water in two southern departments. The World Bank has included construction of health facilities as components in two colonization loans.

5. USAID/Paraguay's Proposed Program

Definition of a program will be part of the work of the proposed A.I.D. sector assessment. However, we believe that a sector loan program for 1980 will be appropriate and probably will include as major components construction of rural health facilities and potable water systems for communities of 1,000 to 4,000 inhabitants.

At this time, we view our program goal as "improved health care to add to the prospects of a better life for the rural poor." As stated in the development overview, we feel that there is an opportunity to develop an integrated health/family-planning program with the objectives of better health, wider acceptance of family planning and improved nutrition.

D. Education and Human Resources

1. Objectives and Strategies of Paraguay's Education Development Policy

Paraguay's current National Development Plan (1977-1981) outlines a series of policy guidelines, including coverage of educational services, management of the educational system and forward linkages of education with the productive sector of the economy.

The objectives of Paraguayan education are:

- to raise the quality standards of education at all levels and specializations;
- to increase educational opportunities throughout the system;
- to stimulate the training and production of middle-level managers and technicians and
- to improve inter-institutional coordination, and to achieve the effective integration of efforts in the technical, financial and administrative areas of the system.

These objectives are to be achieved through the implementation of a mix of strategies, and the following areas have been identified by the GOP as those which will require specific attention:

a. Educational Delivery

- extend basic educational opportunities to all potential users, particularly in the rural areas;
- develop plans, programs, and content of non-formal education (NFE) in the rural areas to parallel the formal education efforts;
- develop alternative mixes of educational delivery systems in areas which are particularly affected due to lack of facilities, difficulty of access, and population dispersion.

b. Cost and Resource Efficiency

- achieve efficiency in the construction and location of buildings by designing structures which are equipped to handle multi-grade (pluri-grados) teaching.

- adopt "optimum utilization of installed capacity" as a criterion for building schools;

- provide the necessary school equipment and furniture;

- develop and implement a country-wide rehabilitation and maintenance program to extend the life of school facilities and increase student achievement.

c. Teacher Force

- continue to develop and improve in-service and pre-service teacher training programs;

- emphasize the development and utilization of techniques for multi-grade teaching;

- develop training programs for bilingual education;

- provide incentives to develop a full-time teaching force.

d. Research and Evaluation

- adopt a strategy designed to update, on a continual basis, information regarding the changing conditions that determine educational supply and demand.

e. Development of Middle-Level Technicians

- foster the growth and implementation of technical education and of programs of capacitación (training).

f. Development of High-Level Manpower

- support the development plans of the institutions of higher education.

Paraguay's plans for human resources development are realistic as are the assignment of priorities. The government treats education and human resources through several ministries and inter-ministerial programs, rather than considering education to be solely a function of the Ministry of Education (MCE). Further, the government plans to place an increasing amount of public investment in education. As described in the Summary Strategy Statement, 1981 the consolidated public sector investment in education will claim 4.2% of the total, up from 2.7% in 1975.

2. Outreach and Effectiveness of the Rural Elementary System

Since all of Paraguay's 413 secondary schools are located in small towns and cities, for most rural children in our target group their only contact with the educational system is in primary schools. Unfortunately, the primary system delivers an inadequate product to an insufficient number of students. At present, although 75% of the 7-12 age group are enrolled in the country's 2,000 rural public schools, less than half of that number reach the 4th grade, and only 28% graduate from the 6th grade.

3. Constraints, Alternatives and Priorities

Early school leaving and dropouts are related to insufficient enrollment of the 7-12 age group. There are not enough teachers and schools to instruct and seat all potential students, even though most schools run two or even three shifts of classes.

Official repetition rates for the 1st grade are above 25%; however, independent calculations show that rates could be as high as 50%. High rates of repeaters mean that students pile up in grades where they take up space and may prevent the entrance of new students. If the system were more efficient in moving students through school, larger enrollments could be obtained with existing physical facilities.

Little research on the causes of repeating has been done in Paraguay, but studies in other countries indicate that the major academic cause of failure in school is that students do not learn to read well enough to handle the materials offered. In Paraguay instruction is further complicated by the fact that 65% of the children entering school speak Guaraní. The system suffers from a lack of teachers trained in teaching in a bilingual situation, as well as from an acute shortage of reading materials in Guaraní. Instruction in other subject areas also is deficient because of the lack of training for teachers in the new curriculum recently adopted and in the supply of essential teaching-learning materials. Not only are materials scarce, but even when available, their cost may be beyond the reach of poor families.

Studies in other countries suggest problems of inefficiency are also related to the quality of facilities. Both teacher and student motivation and ability flag under circumstances of crowded quarters, poor lighting and ventilation, inadequate seats and desks, unpainted or dirty walls, etc. At this time it is difficult to determine the full extent of the need for improvement of school facilities and new construction. Moreover, an already crowded system faces each year an increasing number of students because of population increase. According to the MOE's current projections, it expects the

entry of new students into the school system to be about 10,000 per year, exclusive of the out-of-school population about which we have no information beyond the 1972 census.

a. Constraints to Construction

Building new schools on the scale necessary to offer universal access to elementary education through the 6th grade would strain severely Paraguay's budget resources and construction capability. Assuming that 10,000 new students enter the school-aged group each year and a rate of 50 students per classroom, the MOE will have to construct 200 new classrooms annually, in order to maintain present coverage. The cost implications are significant. The simplest classroom costs about $3,000 to construct, which suggests a cost of $600,000 to maintain present enrollment percentages. Decisions on construction are complicated by the lack of information on unsatisfied demand and specific locations where schools should be expanded or constructed and by the MOE's lack of experience in supervising wide-spread construction activities.

Since about half of the rural schools do not offer the full six years of elementary instruction, but in most cases have two or three sound classrooms and to varying degrees have sufficient school-aged populations to warrant more rooms, a program which provides for facilities expansion, rehabilitation and maintenance would be most practical and more cost-effective than relying on new construction. Rehabilitation and maintenance also should contribute to improvement of achievement levels and greater efficiency in the system.

Another alternative under study for providing complete schools is the use of educational radio to supply some subject instruction in grades which the local school system may not offer. USAID/Paraguay initiated a project along these lines with the MOE in January, 1977. (The project is approved for FY's 1976-1978, but because of delay in the contracting process, consultants did not arrive in-country until January, 1977). This is a pilot activity, and we are several months away from having enough experience to indicate whether radio education is a reasonable answer to some of Paraguay's education problems.

Our experience with a non-formal education project now covers eight months of field implementation, and results produced thus far demonstrate that NFE is a useful alternative delivery system for rural Paraguay. We plan to request a two-year extension of the project through FY 1980.

b. Priority Development Problems

The full education sector assessment performed by the Academy for Educational Development will be submitted for review at the same time as the DAP and should be consulted for a more complete discussion of the educational system. From the full assessment and this abbreviated statement, the following priority development problems have been identified:

(1) There is inadequate access to both formal and non-formal education in the rural areas;

(2) Elementary education is of low quality and

(3) The MOE has limited planning and management capabilities.

4. Other Donors

Assistance by A.I.D. and other donors, particularly the World Bank, the Inter-American Development Bank (IDB) and the United Nations, has played a critical role in the development of physical infrastructure, training personnel, framing and implementation of policies and the provision of didactic materials. Donors have a common focus on rural education because rural areas are faced with greater problems than are urban systems.

The most significant assistance has been in the form of loans. The IDB has provided $2.3 million to finance construction of five vocational agriculture schools. World Bank loans include:

a. $5.1 million to finance construction of five vocational/technical schools;

b. $4 million to finance facilities and equipment for skills training;

c. $12 million in 1976 for improvement in the efficiency of the rural elementary system;

d. Two loans for colonization, the first for $12 million and the second for $22 million, include components for construction of schools adequate to serve the projected needs of the colonies.

We believe that donor assistance represents an appropriate response to Paraguay's education program, and that it addresses the priority development problems identified above.

5. Adequacy of Information

Several gaps appear in the collection and analysis of information, and government planning suffers as a result. The MOE's planning and statistics office seldom receives information from the field in the formats and at the times required, and the volume of routine reports processed by hand tabulations takes valuable time away from planning and analysis. Projections of manpower and training requirements are primarily a responsibility of the Ministry of Labor's Department of Human Resources, which lacks information and does not have the budget required to collect data upon which to base plans.

6. USAID/Paraguay's Proposed Program

Based on our examination of the host country's program and our discussions with Paraguayan officials, the findings of the education sector assessment and the priority development problems which have been identified, we have selected the following program goals:

- Access to quality elementary school instruction;

- Access to non-formal education and vocational training which will contribute to higher earnings and better quality of life.

Program goals are closely related to the Mission's paramount goal of permanent improvement in the standards of living and future prospects of targeted low-income families. Work toward the program goal will be through the strategy of strengthening the socio-economic infrastructure (institutions) in rural areas. Within the six GOP strategies to achieve its education objectives, we have selected four: 1) educational delivery, 2) cost and resource efficiency, 3) the teacher force and 4) analysis, research and evaluation as priority areas for USAID/P assistance. These GOP strategies, AID/W guidance, and the recently completed education sector assessment provide a course of action designed to address our program goals. We expect to concentrate our assistance in the following areas:

a. Facilities

- support a rehabilitation and maintenance program to improve existing schools;

- improve existing facilities, and add classrooms where enrollment warrants as the best response to rapid increase of access to education.

b. Improve the Quality of Instruction

In terms of both low cost and speed of response, treatment of two basic problems promises high return. The two problems, both the poor quality of preparation and in-service training for teachers, and the inappropriate types of didactic materials presently in use, are areas upon which the MOE has been concentrating its efforts. A.I.D.'s role is to assist in accelerating progress while concurrently attempting to introduce new ideas. Some of the steps which should be introduced or expanded upon include:

- training teachers in methodology and the use of didactic materials in the new curriculum, including bilingual education, and developing appropriate course materials;

- upgrading teacher-training improvement programs, such as math, teaching/learning methodologies, agriculture, vocational education, etc.;

- conducting a study of supply and demand for vocational education teacher trainers, and implementing a plan to satisfy requirements;

- providing mobile instruction laboratories and special in-service teacher training teams to work with teachers and

- developing training methods and materials which are within the reach of poor communities. Our experience with the new curriculum and textbooks has shown that other types of training materials, such as teacher plans and activity guides, flip charts, free printed work handouts for children, etc. are needed to improve instruction.

c. Regional Education Centers (RECs)

This program is related closely to (b) above. Paraguay now has six RECs and wishes to construct at least one more to provide coverage over all of Eastern Paraguay. The potential of the RECs is considerable for decentralizing the administrative system to allow closer supervision of rural schools, serving as centers for teacher preparation and in-service training and for expanding community education to include the out-of-school population. The RECs programs should be expanded to include:

- making use of facilities on a full-time basis, seven days a week, throughout the year;

- providing agricultural and vocational education to all interested, regardless of age and sex, in cooperation with the Ministries of Agriculture and Labor and

- serving as a coordinating point and resource center for non-formal education activities within their areas of responsibility.

d. Planning, Research and Evaluation

The MOE's planning and statistics office will receive commodity, training and advisory assistance under the sector loan. Some preliminary assistance may be provided by a TAB contract with Harvard University. Consultants from the university have entered into preliminary discussions with the Mission and the GOP which may lead to selection of Paraguay as a site for manpower assessment and plans for training. We are hopeful that TAB and Harvard will provide the assistance which Paraguay needs to improve its information and planning base.

E. Industry

1. National Plan

The Mission has selected inter alia the following three objectives for the industrial sector from Paraguay's National Development Plan for program emphasis:

a. Promote the exports of agroindustrial products as a means of enlarging the demand for national raw materials and the productive use of labor.

b. Assist in improving the standard of living of the population through the creation of industrial employment.

c. Improve industrial productivity and the skills of human resources of the sector.

These objectives coincide with the Mission's strategies of identifying alternative small farm products for which there are expanding internal or external markets, stimulating non-farm opportunities for labor employment and improving income distribution. Other national industrial sector objectives, such as studies about the feasibility of energy-intensive industries, for example, are not matters of principal A.I.D. concern.

2. Effectiveness and Outreach of GOP Industrial Programs

Industry in Paraguay is not a lead sector. It grew, more or less, at the same pace as the economy as a whole since 1962. Industry's share of the GDP grew from 14.5% in 1962 to 15.7% in 1970 and then fell to 15.1% in 1975. Its share of total employment declined from 15.5% of the employed population in 1962 to 14.1% on the average during 1972-1975. This rather unimpressive record reflects the low productivity of industry in Paraguay and perhaps the relatively low level of importance assigned to the industrial sector in the past. The country's second Five-Year Development Plan, 1977-1981, projects a 7.6% annual growth rate of GDP compared to an historical rate of 6.1% in 1970-1975. Although the rate for value added by industry between 1970-1975 was only 5.3%, the GOP's Plan projects a growth of industrial output of 9.7% per year over the 1977-1981 period. The Paraguayan Government in its National Plans, thereby, assumes that industry is to become a lead sector. There is good reason to be optimistic about the future state of the economy and the ability to attain this goal. Bright export prospects, plus the demand for goods and services by Itaipú, assure adequate aggregate demand and foreign exchange earnings. Nevertheless, important constraints exist, among which the lack of skilled labor, sufficient entrepreneurs and knowledge about appropriate technology are

the most important to industry.

The government agency charged with responsibility for the industrial sector is the Ministry of Industry and Commerce. The MIC's primary duties are to regulate commerce, especially imports and exports, and to encourage industrial development. It has under its jurisdiction the National Institute of Technology and Standards (NITS) and the Export Promotion Center. The MIC's primary means today of encouraging industrialization is through the much-discussed Law 550 for the promotion of investments. Previously Law 216 of 1970 served this purpose. Law 550 provides liberation from customs duties on imports and taxes on foreign exchange operations for priority investment. It also provides for a 50% reduction of the income tax for a period of five years. The criteria for qualifying investments are their contributions to a) exports, b) import substitution and c) greater utilization of domestic resources. The Law contains provisions to encourage investments outside of Asunción.

Obviously, if small manufacturing industries could take full advantage of this law, they would have less serious problems importing necessary raw materials, and they would be in a stronger competitive position. To date only large-scale industries with high levels of capitalization have been able to take advantage of this law. The small industrial units which characterize Paraguay's industrial sector do not benefit from Law 550 and, therefore, are handicapped in their ability to participate in national policies which emphasize import substitution. Cooperatives which wish to engage in industrial enterprises, such as cotton gins, do not have to pay import taxes under Law 349.

Other means of encouraging future industrialization under the National Economic Development Plan include an increase in industry's share of total credit provided by the banking system and an undefined but very sizeable increase in the share of public sector investments allocated to industry. These policies also may tend to benefit primarily the better-organized, highly capitalized large-scale industries, those with over twenty employees and on average investment of over $100,000.

Another agency charged with responsibility for the industrial sector is the National Institute of Technology and Standards (NITS), which maintains industrial standards, measures and quality controls. The NITS is also charged with developing appropriate technology and has tried to stimulate the production of farm machinery. Unfortunately, however, the NITS has lacked funds to build prototype machines needed to spread the use of appropriate technology. It plans to increase its activities this year by establishing field offices.

The primary source of medium-term credit for industry has been the Industrial Department of the National Development Bank. Much of its lending has been in support of small-scale industry and artisans. At the end of 1975, 90% of 1,503 outstanding loans were for less than ₲3 million ($23,809).1/ It extends no general technical assistance, however, and technical advice is given only in connection with the monitoring of loans.

3. Constraints and Actionable Alternatives

Industrial development in Paraguay has lacked two key institutions: an institution dedicated to providing general technical and advisory assistance to the small manufacturing industry sector and a development corporation for the advancement of new industries that require risk capital, assistance in research and promotion in the export field.

Small industry (6-20 employees) is a neglected sector of the Paraguayan economy, although small manufacturing industries (excluding artisans) account for approximately 95% of the country's industrial establishments and 73% of industrial employment. 2/ The last industrial census (1963) indicated that 65% of these small industries were located outside Asunción, and 47% were located in the minifundia departments. The Central Zone is the principal point of concentration of small-scale industries. By virtue of their strategic location in the area where the rural poor and unemployed are concentrated, any policies or assistance to small manufacturing industries that stimulate their growth and efficiency may be expected to have beneficial effects on low-income rural families, the principal target group for A.I.D. assistance. While the National Development Bank (NDB) has provided considerable credit to small industries, commercial banks largely have ignored the small-industry sector. Furthermore, small industries have not benefitted from any significant program of technical assistance. Yet, the majority of employees in manufacturing industry in the country work for small concerns. An A.I.D. survey in 1976 showed that 70% of small industry units interviewed had never received production credit, and 90% had never received technical assistance, although most firms desired both credit and assistance. 3/

1/ IBRD, Paraguay: Appraisal of an Industrial Credit Project through Banco Nacional de Fomento, April 8, 1977, p. 20.

2/ In contrast to small manufacturing industry, artisans (usually less than five employees) are assisted by the Servicio de Promoción Artesanal, created by Law 549 of February 18, 1975. Data are estimates of a UNIDO Mission and STP.

3/ Gómez, Dr. Enrique, Survey of Artisans and Small Industries, USAID/Paraguay, March 11, 1977.

Although Paraguay has institutions that provide development credit and export marketing information, it has no institution to provide risk capital to Paraguayan industrialists. A capital market law has been under study for two years but has not yet been passed. Since the country is on the verge of a new industrial era -- made possible by virtually limitless resources of electric energy and exports of goods and services to Itaipú (already exceeding $70 million annually), as well as a strong international financial position -- success in achieving industrial goals will require a strong development corporation to carry out costly pre-investment studies, to determine investment priorities, to promote interest among potential investors (both domestic and foreign) and to provide needed equity capital support.

4. GOP and A.I.D. Strategies for Industrial Development

All three of the principal strategic objectives of the GOP's Development Plan -- exports, agroindustrial growth and import substitution -- can be achieved partially through industrial development. Expressed differently, the achievement of the Plan's industrial growth objective of 9.7% per year is interlinked inextricably with the achievement of overall objectives. Agroindustries account for two-thirds of value added in the industrial sector and 70% of total exports. 1/ Consequently, overall industrial growth objectives are not going to be achieved without a comparable increase in agroindustrial production. Industry's importance largely derives from its link to agriculture. The Plan specifically states that for the five-year period no consideration will be given to the installation of energy-intensive industries (such as ferroalloys and petrochemicals) that might be developed to take advantage of limitless, cheap power from Itaipú in the 1980's because of the long lead time in developing such industries. The Plan proposes to increase productivity of the labor force by importing and developing domestically-needed technology. It also proposes to encourage foreign investment associated with the import of technology and the development of export markets.

USAID's program of aid to industry is designed to support rural industrialization and the growth of small-scale firms with a view to accomplishing the following goals:

a. Increase agroindustrial production and exports by making available adequate credit and technical assistance.

1/ Op. cit., IBRD, p. i.

b. Increase agricultural incomes and output, especially incomes and output for small-scale farms, as a result of the derived demand created by agroindustries.

c. Facilitate the adoption of appropriate technology.

d. Permit all sectors of the industrial labor force to participate in the growth process by increasing the productivity and output of small-scale firms, thereby contributing to a more equitable distribution of income.

e. Increase the level of employment by providing off-farm work for underemployed people on small farms.

f. Increase the number of innovative entrepreneurs to spearhead future industrial expansion.

The FY 1976 Rural Enterprises Loan, the FY 1977 Production Credit Guaranty Project and the FY 1977 Market Towns Development Project are all designed to help accomplish these goals. In addition, we are proposing a project for Small Manufacturing Industry Development (SMID) for FY 1979 which should complement the others with its emphasis on support for small manufacturing industries through industrial policies, technical assistance and adoption of appropriate technology.

USAID/P's industrial strategy is designed to reinforce that of the GOP and, at the same time, to attempt to achieve the purposes of the Congressional Mandate by focusing on raising productivity and employment among small-scale rural industries and farms. Through this program and through the demonstration effects of the underlying projects we hope to influence the GOP to modify its industrial development strategy so as to give greater emphasis to policies that will benefit the rural poor and at the same time contribute to overall goals of growth and exports.

III. SUMMARY STRATEGY STATEMENT

A. Development Overview

Despite Paraguay's small internal market, its landlocked position and the disadvantages inherent in the country's remoteness from major world markets, Paraguay is undergoing significant economic and social changes. These changes have given Paraguayans a more optimistic view of their development prospects, an outgoing view which differs considerably from the strictly agrarian focus and limited world view which long characterized the country. The 1970's, especially, have witnessed modest but steady acceleration of economic growth which has promoted new confidence in the country's future.

The single most important factor in this reorientation is the launching of the hydroelectric project at Itaipú, between Brazil and Paraguay on the Paraná River. When completed in the mid-1980's, the project will be the world's largest producer of electricity. Economic effects of the project on income, employment, migration and foreign exchange earnings are already notable and will become more pronounced over the next few years.

Also important is the popular notion that Paraguay has a future which offers widespread opportunity. Optimistic projections hold that Itaipú is only the beginning. Another major hydroelectric project with Argentina at Yacyretá, first proposed early in this century but until recently never beyond the talking stage, has now started construction. The possibility of a third project (Corpus), downriver from Itaipú, is also being discussed with Argentina. These projects excite a Paraguayan vision of abundant and cheap energy which will bring about a strong and diversified industrial economy.

Paraguay's new vision also owes much to strong world market prices for the agricultural commodities which represent the country's major exports. Paraguay is a predominantly agricultural country, and it has been able to take rapid advantage of favorable prices and market conditions for cotton, soybeans, essential oils and other products. Consequently, income from exports has grown rapidly in recent years, and interest has been stimulated in the expansion of agricultural exports. The government has mounted an extensive export promotion campaign to promote production of those export crops which enjoy the highest demand. Since January 1, 1977, Paraguay's most widely read newspaper, ABC COLOR, has carried as a frontpage slogan, "Exportar es la Consigna" (to export is the watchword).

In terms of both economic theory and practical experience, Paraguay's small population, now estimated at 2,700,000, and low per capita GDP, about $450 (in 1973 prices), are factors which suggest that export-oriented growth is clearly indicated. That Paraguayan planners have accepted this proposition is reflected in the most recent national development plan for 1977-1981. But the most important consideration is that the expansion of exports is widely accepted in Paraguay, not only on theoretical grounds, but from observation that the external sector is dynamic and has accounted for the current economic growth rate which is the highest the country has ever experienced.

Thus, the pace and direction which Paraguay's national development will take are largely determined by elements and market conditions over which A.I.D. has little influence or control. To a considerable extent, these elements and conditions are also beyond the control of Paraguayan authorities. Nevertheless, with an increasingly firm commitment to national development and a general recognition that development must be financed largely from exports, there are good prospects for achieving and maintaining an adequate rate of economic development.

The broad priority objectives of the Paraguayan development plan are: 1) increased exports; 2) increased industrialization for both the domestic and export market, principally through the development of processing industries and 3) import substitution. There is no necessary reason that development along these lines will improve the relative position of low-income groups in the country. Indeed, under the national development strategy of the GOP energy-intensive, export oriented industries, such as aluminum and pulp, require large amounts of capital. Obviously, the poorer segments of the population cannot engage to any important degree in these capital-intensive enterprises. A.I.D. does not disagree with this aspect of the GOP's development strategy and would not think it wise, even if it were possible, to dissuade national authorities from this approach. Yet, the GOP's policy of promoting production for the export market may result in stagnation of other productive components of the economy. A government which directs its energies and commitments toward the export sector to develop national rice or soybean programs or a pulp and paper industry may not have the time or enthusiasm for involvement in more modest programs whose contribution to Paraguayan development objectives is seen as more remote and less exciting. A further constraint is that existing Paraguayan planning and financial institutions do not have a sufficient pool of technical expertise, or the managerial capability, to handle a wide range of development programs in their areas of responsibility.

1. A.I.D. Strategy

In these circumstances, it is hyperbole to talk about "orienting national development to the needs of the poor majority." In a trade off between a more rapid growth rate and a more equitable income distribution, national authorities clearly will opt for the former. The National Development Plan says very little about improving income distribution and very much about raising the rate of growth. It should be noted that these two goals are not necessarily mutually exclusive, except perhaps in the short run.

Our development assistance strategy must focus on orienting specific low-income groups toward the development process. The Paraguayan economic system is predominantly market-oriented and market-directed, and the basic strategy of development toward the external market is sound because this strategy removes the constraint on internal market expansion that would be imposed by an autarchic development approach. Thus, as long as the process maintains its dynamism, there will be an increasing effective demand in both product and factor markets.

The best way to assure the poor majority a share in the output which is distributed through the market is to equip and assist them to secure a place on the production and employment side of the market. There are also overhead capital and public sector goods and services whose distribution within Paraguay depends more on political processes than on the functioning of the market. The most effective means by which the poor majority can share in these goods and services is through participation in effective organizations at the community and/or occupational level, which can make their needs known and their influence felt in the allocation process. In short, A.I.D. wishes to encourage balanced economic growth by incorporating to the maximum extent possible the poor majority into the national development process, both as contributors and as beneficiaries. Thus, our basic strategy consists in:

- identifying the dynamic elements in Paraguayan development priorities;

- developing projects with specific, identifiable low-income groups which enable them to contribute to the dynamism of the process and to the achievement of the priority goals and, thereby, gain a permanent place in the evolving economic structure;

- raising the productivity and, thereby, the real income of low-income groups.

2. Goals and Objectives

The overriding goal of the A.I.D. assistance program in Paraguay is to achieve a permanent improvement in the standards of living and future prospects of targeted low-income families. The key concepts in the goal statement are "permanent improvement," "living standards" and "future prospects." We focus on the "permanent improvement" concept to highlight the development aspects of our assistance effort. To achieve a permanent improvement in the position of the target groups it is necessary to improve their capacity to participate in the national development process and to provide opportunities for them to do so. These two considerations must go hand in hand. We propose to assist them to increase the productivity of their own labor, land and limited capital resources through programs which work directly with the intended beneficiaries; but we also propose to work with national institutions to strengthen their capacity to provide better and more widely-diffused support services, such as agricultural research and extension tailored to the needs of the rural poor. Implicit in the strengthening of such support services is a search for appropriate technologies which will enable producers to maximize returns from resources. However, these efforts must be related consciously to the opportunities which are developing or can be developed for the producer to find a place in the market economy, either through new or better products or through alternative labor employment. As these opportunities are defined or identified, they must feed back into the design of training programs and support services which the small producer needs in order to be able to take advantage of the opportunities.

The distributional aspect of USAID development strategy is the focus on "living standards" in the broadest sense of the terms, rather than only on increased cash income. While increased productivity of resources and expanding employment should generate income increases, it is also necessary to focus explicitly on an expansion of public services toward the needs of the target groups. The availability of education, health, sanitation, power, transportation and communication services in the rural areas is notoriously deficient. This fact not only reflects a distribution of public sector benefits which is highly skewed toward the capital city, but also constitutes a major constraint on the ability of rural households to integrate themselves into the national economy.

The USAID strategy on these matters is to attempt to create in the rural areas an increasing demand for a better share of public sector investments in basic services of all kinds, while leaving most of the external financing of such investments to the international financial institutions (IFI's). We propose to do this by strengthening local organizations in rural areas, by encouraging them to define their own needs and to mobilize their own resources

and by assisting them to tap into national institutions and programs for the additional technical and financial resources they need. USAID is prepared to finance national programs to increase educational and health services, rural roads, market town development, credit and banking services, etc., only when we can assure that the A.I.D. resources so provided will flow to the rural areas to serve the needs of the target groups.

Finally, the "future prospects" of rural households depend to a very great degree on what happens to their children. Realistically, the extent to which large numbers of the heads of rural households can be given a more secure position in the economic system and a markedly increased share in its outputs is seriously limited in the short run. The investments required are so vast and the elements so complexly interrelated that dramatic changes cannot be expected in the near future.

What can be expected with more confidence is that the younger generation eventually will have a better life. For this objective the role of education is crucial. The big questions, of course, are: What kinds of education do they need?, and What is the most efficient and effective way to get it to them? It is clear that if educational programs are to open opportunities for the children of rural households, the programs must be tailored to anticipated future needs and possibilities within the Paraguayan economy. Not much attention has been given to this problem, but awareness of its importance is increasing; and USAID/P is encouraging the Ministries of Education and Labor to undertake analyses of anticipated manpower needs and related educational requirements.

In a similar vein, expansion of health services in the rural areas is an important objective. Our objective is to redress the serious imbalance that now exists by giving the rural poor a more reasonable share of available health services, in recognition of the contribution improved health care can make to the productivity of the rural poor and to their prospects of a better life. Our current efforts in health are confined to support of family-planning services through regional health centers. However, there is a clear need for a greatly-expanded health program in the rural areas. There is an opportunity to develop an integrated health/family-planning program with technical and financial assistance in which the objectives of better health, wider acceptance of family planning and improved nutrition can be pursued in a way which exploits the interrelationship and interdependence of these objectives. This unified approach would appear to be more effective than a series of discrete programs which pursue each objective in isolation.

3. Target Group

While we have many observations and impressions of some specific low-income groups in Paraguay, we really do not know very much in a systematic way about the poor majority. Given the virtual absence of reliable data on family income distribution, it is difficult to say with any precision who the poor are, where they are, what their principal characteristics are in terms of occupation, age, sex, race, education, health and attitudes, etc. Consequently, we intend, during the three-year period for which this DAP will be relevant, to make a major effort to fill in the information gaps.

The principal target group for A.I.D. assistance will remain the small farmers because of their strategic importance in Paraguayan development. This is a group about which we have considerable information. The small farmer, defined as one who has access to twenty hectares or less, produces 60% of all agricultural products, accounts for 40% of agricultural exports, 36% of total exports and represents 51% of the active labor force. Small farmers have great potential for contributing to national development goals through increased production for export, for an expanding domestic market and for rational (i.e., economic) import substitution.

We propose to redefine and narrow the target group in several ways. First, we propose to target on rural households rather than farmers. The implications of this redefinition are twofold:

a. By focusing on households we will be more specifically encompassing the problems, needs and capabilities of rural women and children, thereby providing a basis for a more integrated application of A.I.D. resources for education and health with resources available for food and nutrition programs. By the same token, we will have somewhat more precise criteria for possible OPG's to private voluntary organizations who are attempting interesting projects in home economics, cottage handicraft, etc.

b. The focus on rural, rather than agricultural, development is also designed to move us closer to a focus on specific low-income groups. Not all small farm households (as we have defined them) are in the lower half of the income distribution. Some of them already have established themselves firmly in the national economic system. Others are in colonization areas where their development needs are being attended by government programs financed by other external assistance agencies. On the other hand, the population of Paraguay is 62% rural. Not all rural households are on farms. We propose to identify rural non-farm households in the low-income strata that can be incorporated into the system with appropriate A.I.D. assistance.

An important consideration in targeting assistance is that the rural population of Paraguay is concentrated. The Central Zone, comprising the Departments of Central, Cordillera, Guairá and Paraguarí, contains only five percent of the land area of the country. Yet these departments have about fifty percent of the farm units and more than half the rural population. The Zone is characterized by depleted soils, a small-sized average farm unit and a high proportion of subsistence agriculture. It is also an area where there is a heavy concentration of small employment - intensive industries and artisans who in the past have received little or no technical or financial aid. Its inhabitants are principally descendents of indigenous peoples and early colonial settlers, and their outlook and attitudes reflect traditional values of the same.

Another consideration is that the National Development Plan has as one of its objectives balanced regional economic growth and integration of the domestic market. The Trans-Chaco Highway represents an attempt to involve more fully in national economic development a vast, sparsely-inhabited area. Colonization areas and a few developing urban centers along the eastern border with Brazil and Argentina are receiving priority attention from the GOP, as well as financial assistance from IDB and IBRD. There is increasing recognition of the importance of improved means of transportation and communication to achieve a closer physical integration with Paraguay's principal trading partners in the Southern Zone. The relatively overpopulated Central Zone needs assistance to keep pace with development in other more dynamic regions.

It is the Mission's considered view that the rural poor in the Central Zone, who are now only marginally participant in the development process, are most likely to become further impoverished as the process evolves, unless they can be assisted in adjusting to new economic opportunities. There is evidence of substantial movement out of the Central Zone, eastward and northward to colonization areas, especially to the area of Alto Paraná where new opportunities are being generated by the Itaipú project. Out-migrants move from the Central Zone in sizeable numbers to Asunción and other urban and agricultural areas. This movement relieves some of the pressure on the land. But the question is whether those who remain can find ways to improve their economic situation without more outside assistance and whether Paraguay's budding urban centers along the east-west axis, from Asunción to Puerto Stroessner, can provide the services which will encourage investment in agroindustrial development necessary to sustain a mutually reinforcing dynamic process. Government policy, oriented as it is toward export expansion, tends to favor agroindustrial production which involves extensive use of land and/or heavy investment in modern machinery and technology. Some small farmers are already involved in production for export. Many of them will undoubtedly be able to acquire more land and expand

and modernize their operations. But the subsistence farmer is unlikely to be able to make it without help. Improving the efficiency of his current operations will not help him very much. He needs viable alternatives.

There are essentially three ways of increasing opportunities for low-income rural households:

a. By identifying alternative products for which there are expanding internal or external markets so as to determine which of these products represent feasible alternatives for small farmers. In this connection we propose to analyze "product systems" to determine which production alternatives might be made feasible by appropriate modifications in the system, such as the stability and prices of important inputs; the adequacy of support systems (research, technical assistance and credit); the efficiency of the marketing system (pricing, grading and quality-control mechanisms); etc.

b. By stimulating non-farm alternative opportunities for labor employment, principally through investment in agroindustrial activities in rural areas. There are also indications that surplus labor of some agricultural households could be employed profitably in handicrafts and small industries.

c. By strengthening the socio-economic infrastructure (institutions) in the rural areas. A major goal here is to assist and encourage private organizations, municipal governments and national entities to speed up the pace of integrating their efforts toward a national economic system. We expect these efforts to contribute to more rapidly-expanding markets for agricultural products and to generate more alternative employment opportunities for surplus agricultural labor.

Economic Situation and Prospects

Growth and Stability

Economic growth during the period 1962-1969 was slow. GDP grew at an annual average rate of 4.3%, GDP per capita at 1.2% and exports at 5.3%. Agricultural output grew at 2% a year due to new land brought under cultivation, and output per employed person declined. Consumer prices rose at a modest 3% per annum. Since 1970 the economy has demonstrated considerable vitality and capacity for growth. GDP increased at an average annual rate of 6.1% from 1970-1975, due largely to a very significant growth in commodity exports which increased from $65 million in 1970, to $176 million in 1975 and $181 million in 1976. By contrast exports had risen only from $34 million to $65 million from 1962 to 1970. Agriculture, which accounts for over 90% of exports, reflected this export expansion with a 5.5% annual increase in output. The growth of exports has been accompanied by a very significant strengthening of the country's net international financial position: net foreign exchange reserves rose from $18 million in 1970 to $158 million at the end of 1976, equivalent to 6 months' imports of goods and services. The strong position of the Guaraní has been observed favorably by the International Monetary Fund.

Although consumer prices rose by 44.5% from 1972 to the end of 1974, largely as a result of the influence of the international inflation ensuing from the petroleum price increase, the government pursued sound fiscal and monetary policies to prevent the generation of domestic inflationary pressures. Both the Consolidated Public Sector and Central Government Budgets showed surpluses after including external financing for the years 1972-1975. As a result, prices rose by only 8.6% during 1975 and 3.2% during 1976. 1/ GDP is estimated by the Central Bank to have increased by 6.5% during 1976, while the active money supply rose 18.9%, savings deposits by 25.6% and bank credit to the private sector by 17%.

GDP per capita, expressed in 1973 prices, amounted to an estimated $454 in 1976, indicating that Paraguay is still one of the poorest countries in Latin America, as measured in market economy terms. Although comprehensive data on income distribution are lacking, one does not see in Paraguay the extreme poverty that is so evident in other Latin American countries with much higher per capita incomes. Perhaps because of its small population of 2.7 million in relation to the abundance and variety of its agricultural output, the

1/ The official cost of living index now is considered inadequate and out-of-date; the Central Bank is now undertaking to revise and broaden the coverage of the index.

population is reasonably well-fed. According to a 1965 nutritional survey, the population's per capita caloric intake was 2,345, and protein consumption, 63.4 grams. It is estimated that 47.7% of the active population are engaged in agriculture and produce 33% of GDP; in contrast, 14.1% of the active population are in manufacturing industry and produce 16.7% of GDP.

Resources and Their Utilization

According to Plan data, in 1976, 32.3% of a total population of 2.7 million were economically active. The population is projected to grow at an annual rate of 3.0%. Although unemployment is put at only about 3.5% of the active labor force, underemployment is considered to effect about half of both the urban and rural labor forces. Nevertheless, only about 12% of the country's arable land is under cultivation. Small farmers, those with less than 20 hectares of land, have a per capita income of less than half the national average; however, they are believed to account for about 60% of agricultural output and 40% of agricultural exports. Underemployment is pronounced among small farmers, particularly those having less than 5 hectares of land. The Government's land settlement and colonization program has succeeded in alleviating this situation somewhat by giving small farmers larger plots of land. This policy, along with heavy public investments in roads, has contributed significantly to the increase in farm output, as well as to fuller utilization of the labor force. The agricultural labor that is surplus to the farm at the present time, if properly trained, should be able to find employment in agro-industries and in various service occupations that may be expected to develop in Paraguay's growing market towns. Our programs for FY 1978-1979 are designed to help increase the income and employment of this small farm population by providing fuller and more productive work, both on the farm and off the farm.

In view of the country's vast, unutilized fertile land area, its still extensive forests and its almost limitless future availability of electric energy from hydropower facilities now under construction, Paraguay should be considered underpopulated. Its major problem is to train its human resources, so that they may be employed fully in exploiting these natural resources.

At present Paraguay's economy is not developed sufficiently to support its existing population with adequate employment, and even minimal public services such as health care and elementary school education. Consequently, the development of the country's human resources would only be hindered by a more rapid population growth, since the goods and services sectors are already strained and are inadequate to meet the needs of the population. The answer to Paraguay's problems, then, is not merely the restraint of population

growth, but also the redistribution of population and the relocation and training of human resources.

The Transition Period of Development

Government officials point out that the economy is in a state of transition, that we can consider that there are two important states in the country's economic development - before and after Itaipú. Itaipú is a large electric power complex on the Paraná River, which along with another power complex (Yacyretá) scheduled for initiation this year, will cost over $5 billion in 1973-1975 prices. Itaipú, which will cost over $3 billion (1975 prices), in its entirety is a financial obligation of Brazil.

Construction of Itaipú began in 1974, and the first of 18 turbines with a capacity of 700 MW should be in operation in 1983. The construction of Yacyretá with the aid of Argentina is to begin in 1977, and the last turbine is to be installed in 1987. Itaipú will have an installed generating capacity of 12,600 MW, while the capacity of Yacyretá will be 4,600 MW. During the next 10 years, Paraguay should be able to earn up to $115 million a year in sales of construction materials and workers' services to the binational authorities that are financing the projects.

The basic agreements allow Paraguay the right to half the energy to be produced by the projects. To the extent that Paraguay does not use its share, it can sell the unutilized balance to the partner countries, as provided for under treaty, and retain the difference between production cost and sales price. What it retains for use in Paraguay presumably would be purchased at production cost. Thus, after foreign exchange earnings from the construction of the dams ceases in the mid 1980's, Paraguay would begin to earn foreign exchange from the sale of its share of the electric energy. In this way Itaipú and Yacyretá will effect a significant and permanent increase in the country's foreign exchange earnings, thereby constituting a major structural change in the economy. 1/

The prospect of the availability of plentiful cheap energy in the 1980's will not only stimulate the country's industrial development but will also lead it in new directions. Investments in new energy-intensive industries such as aluminum, iron alloys and fertilizers may become feasible. In addition to the direct foreign exchange earnings from the power projects, Paraguay may be expected to benefit from an influx of private capital attracted by the availability of electric energy.

The table below portrays the 1975 and the preliminary 1976 balance of payments data of the Central Bank:

1/ Details about the two projects were obtained from a publication of the Secretary General of the O.A.S., entitled, Las Grandes Obras Hidroeléctricas y El Desarrollo de Paraguay, prepared especially for a seminar on the subject, held in Asunción, Oct. 18-22, 1976.

Balance of Payments Data of the Central Bank, 1975 and 1976

Items	1975	1976
Trade FOB		
Exports	176,445	181,300
Imports	227,342	230,000
Balance	-50,897	-48,700
Net Services		
Ocean Transportation & Insurance	-26,370	-27,050
Various Transportation	- 3,166	- 5,144
Tourism	- 1,460	+ 1,161
Investment Income	-13,297	-25,267
Govt. Transactions	830	301
Various Services	- 9,232	- 7,401
Balance	-52,695	-63,400
Transfers Net	13,983	4,508
Non-Monetary Capital Net		
Private:	100,491	127,533
Long Term	(61,296)	(54,460)
Short Term	(-5,907)	(-3,600)
Itaipú 1/	(42,480)	(71,910)
Yacyretá 1/	(2,622)	(4,763)
Public:	19,460	38,127
Long Term 2/	(19,460)	(37,881)
Short Term	-	(246)
Balance	119,951	165,660
International Reserves (- = increase)	-31,796	-50,850
Errors & Omissions	1,454	- 7,218

1/ Estudios Económicos, Central Bank. The Central Bank advised us that those items represent current earnings from export of goods and services to the authorities of Itaipú and Yacyretá. For methodological reasons, because of the inability to obtain a breakdown between goods and services, they were included under the capital account. As soon as it is possible to do so, they will be included under the current account.

2/ The following data on the increase in long term indebtedness, which reflects drawings on external loans, was obtained from the Finance Ministry for 1976; Annual Message of President Stroessner, Part IV, to the National Congress, April, 1977; ($000 equivalent):

	Drawings	Amortizations
AID	1,080,714	1,223,594
IDB	9,001,813	205,201
IBRD	6,091,206	510,002
Spain	8,797,169	115,625
Various Institutions	6,902,999	17,535
South Africa	6,438,600	-
Total	38,312,501	2,071,957

The very significant impact of current earnings from exports to Itaipú and Yacyretá is apparent. Without it net international reserves would have declined rather than virtually doubled in size during the years 1975-1976. If the $45 million of foreign exchange earnings in 1975 and the $77 million in 1976 deriving from export of goods and services to the binational authorities had been reflected properly in the current account balance in goods and services, there would have been shown current account deficits in goods and services of only $58.5 million in 1975 and $33.4 million in 1976.

This structural change in the country's balance of payments position, which has profound implications for the country's future development, is not apt to be temporary. The earnings from the sale of all or part of Paraguay's share of the electric energy produced by Itaipú, which will reflect the difference between the cost and sales price of the energy, are likely to be at least as great as the present sale of goods and services to the binational authorities. Nevertheless, the Government appropriately is not counting on such special circumstances to resolve its foreign exchange problems. Consequently, the GOP is seeking to develop a more diversified export trade, relying less on primary products and more on the processed products of agroindustries, the competitive position of which will be less affected by the country's relatively high transportation costs.

Future Development Prospects and Major Constraints

Paraguay's future development prospects are quite promising, to say the least. The country should continue to be able to expand its exports of primary and processed agricultural products in world markets; and, with added demand for exports from Itaipú and Yacyretá, aggregate demand should provide no barrier to economic growth during the next decade. The availability of abundant cheap energy for the forseeable future provides a spur to industrialization and an attraction for foreign private investment. With investment averaging an estimated 23.4% of GDP during 1975-1976, it would appear that the country has no problem generating an adequate level of savings with foreign assistance. The existence of vast areas of unutilized, but fertile, land provides the basis for continuing agricultural growth and for significant industrialization based on agricultural raw materials. The country's present strong foreign exchange position, the prospects for future balance of payments surpluses, the relatively low foreign debt service ratio and continuing political stability provide a solid basis for future development. Where, then, are the principal constraints to future growth? They are in human resources, technology, mobility of capital resources and public finance.

The country appears to have a scarcity of skilled and semi-skilled workers and a surplus of unskilled workers who are largely

underemployed. The training of such unskilled workers to enable them to obtain full-time employment should stand high on a list of national development priorities. Most of the country's major industries and banks are controlled by foreigners, which suggests that there is a shortage of Paraguayan entrepreneurs who are innovative and willing to assume risks. Technical and financial assistance to small and medium-scale firms are essential if this shortage is to be overcome.

The country lacks any institution or ongoing program dedicated to providing extensive technical assistance to small- and medium-scale firms; and, hence, the country sorely needs a combined program of credit and technical assistance to small firms. The Production Credit Guaranty Program will begin to satisfy this need on a limited scale, but a more extensive effort will be needed if industry is to become a lead sector in promoting growth and exports in accordance with national planning priorities. A National Institute of Technology and Standards exists, but the GOP has not provided the funds and organization to facilitate the dissemination of appropriate technology. While an agricultural extension service exists, it does not receive sufficient financial support to carry out its work effectively, and research stations fail to provide the information needed concerning appropriate technology.

Although domestic and foreign savings amount to over 20% of GDP in Paraguay, the country lacks a capital market as a means of assuring an effective allocation of capital to alternative uses. Although a draft capital market law has been under consideration by the Government during the past two years, it has yet to be passed by the National Congress. Since the country lacks any institution to provide equity finance, an investment banking corporation is needed to promote export industries and to provide much needed equity investment. The corporation could contribute gradually to the formation of a capital market by selling shares from its portfolio to banks, insurance companies and the general public.

According to the Plan, total expenditures in the Consolidated Public Sector Budget nearly are going to double between 1975 and 1981, while net external resources will remain virtually unchanged. To achieve this the tax base will have to be broadened, and the tax system will have to be made more elastic with respect to changes in real national income. In the past the Government has borrowed from the Central Bank. The GOP may have to find non-inflationary means of borrowing, such as bond sales to insurance companies and the general public. Consequently, lack of adequate non-inflationary sources of revenues could provide a major constraint for future public investments. The Technical Secretariat of Planning recognizes this problem and proposes to resolve it by tax reforms and by initiating the sale of government bonds to the private sector.

Government Plans and Development Policies

Introduction

Development plans are drawn up by the Secretaría Técnica de Planificación (STP) in the form of five-year plans of national, social and economic development. The latest Plan, Plan Nacional de Desarrollo Económico y Social, 1977-1981, appeared this year in two volumes: Volume I, "Síntesis y Diagnóstico Socio-Económico, 1970-1975"; and Volume II, "Objetivos, Estrategias y Políticas Globales y Sectorales." Volume I contains a fine review of historical developments, while Volume II provides an indicative plan of future developments based on an overall strategy and supporting policies.

puts special emphasis on three factors: exports, agroindustries and import substitution. Exports have been a principal factor in stimulating rapid growth since 1971, as they increased precipitously with rapidly rising international prices. Export growth has been stimulated further by exports of goods and services to the Itaipú construction project since 1974. Agroindustry constituted about 60% of manufacturing output in 1975 and complements the export goal, since it provides perhaps the greatest potential source for additional exports during the next five years. The Plan emphasizes the limited size of the domestic market and the predominant importance of exports as the engine generating future growth. In this orientation to exports and agroindustries the Plan supports an economic trend that has already developed under the influence of market forces. The third goal of import substitution is included (as is often done in national plans), but its potential importance is not explained, nor does the Plan present a program for promoting import substitution. Consequently, import substitution at this time appears to us to be the least significant element in the overall strategy.

The public sector is to play a more important role than in the past, and public sector investments are to provide increased support for agroindustries, health, education and housing. No specific reference is made in the overall strategy statement concerning the need to achieve a more equitable distribution of the national income, although the emphasis given to public sector investments in social sectors and agroindustry suggests that, as a consequence, some relative improvement in the economic status of the poor majority is intended.

Macroeconomic Projections

The driving forces in the Paraguayan economy since 1970 have been rising exports and rising investments. As previously explained, exports rose 170% in value, but only 30% in volume from 1970-1975. Investments rose from 15.1% of GNP in 1970 to 23% in 1975, averaging 17.2%. Since growth (G) is a function of the rate of investment (I) and the incremental capital output ratio (C), one can derive C from the equation, $6.1 = \frac{17.2}{C}$, $C = 2.819$,1/ where the average annual growth of GDP was 6.1%. The increase in private investments was even more rapid than in public investments. The rise in private investments was undoubtedly stimulated in large part by the prospect of higher profits resulting from rising export prices.

The Plan projects that commodity exports will grow at constant prices at an annual average rate of 11.2% during the period 1976-1981, compared to 5.4% during 1970-1975. Gross investments as a percent of

1/ C, the Incremental Capital Output Ratio (ICOR), measures the productivity of capital investment; the lower the ratio, the greater the output per unit of investment.

GDP are to increase from 23.9% in 1976 to 26.9% in 1981, averaging 25.8%. The much greater role that investments are to play in economic growth during the Plan period is evident from this high ratio, both in relation to the preceding five years and in relation to levels normally attained by developing countries. The implicit incremental capital output ratio (ICOR), calculated as described in the preceding paragraph, is 3.394, since the Plan assumes an annual average growth rate of 7.6%. Thus growth will depend on greater investments, although the output per unit of capital invested will decline. This decline in the capital coefficient could be rationalized as due to greater public investments in social infrastructure or greater investments with long gestation periods. But since the ICOR is derived from other data, it may also reflect an underestimation of economic growth.

Public investments are to rise as a percent of total investments from 21% in 1975 to a peak of 28% in 1978 and end at 25% in 1981. Moreover, public investments are to be financed increasingly by foreign assistance; from 1970 to 1975 external capital inflow accounted for 37.7% of public sector investments, while for 1976-1981 the projected figure is 61.7%. The respective ratios for private investments are 16.5% and 26.4%. Thus, a program of rapidly expanding investments is to an increasing degree to be financed by external resources. Paraguay is projecting a classic growth pattern for LDCs, whereby greater growth is spurred by greater investments which are financed to an increasing degree by external assistance.

The following table shows rates of real economic growth by economic sectors and projections according to the Plan:

Economic Growth by Economic Sector in Paraguay - Past and Projected

Sector	Annual Percent Increase 1970/75 Actual	1976 1/ Actual	1976/81 Projected
Primary Production	5.3	4.4	6.1
Agriculture	6.6	5.6	6.9
Cattle	3.3	4.0	4.3
Forestry	6.4	-0.1	7.2
Hunting, fishing	1.2	18.2	5.0
Secondary Production	6.7	6.1	9.8
Mining	23.7	41.4	5.9
Mfg. industry	5.3	5.0	9.7
Construction	13.6	25.0	10.8
Basic Services	10.4	9.9	12.1
Electricity	17.4	15.1	18.3
Water sanitation	15.1	14.1	14.3
Trans. and comm.	8.3	8.0	9.6
Non-Basic Services	5.9	6.5	7.0
Commerce	6.3	6.0	7.5
Government	1.2	5.9	5.0
Housing	5.6	8.1	6.5
Other	7.2	7.6	6.8
Total GDP	6.1	6.5	7.6

1/ Preliminary estimate of Central Bank.

Source: Plan Nacional de Desarrollo Económico y Social, and Central Bank.

The above data show that, aside from mining which accounts for a very small share (less than 0.5%) of total output, the rapid growth sectors from 1970-1975 were basic services and construction, reflecting the heavy emphasis put on physical infrastructure in government investment programs. Note the high rates of increase for construction and housing in 1976. In the period 1976-1981 this emphasis remains, but manufacturing industry must be added, which shows a phenomenal increase in the rate of growth. This is to be expected in view of the emphasis given to agroindustries, exports and sales to the binational authority of Itaipú in the National Plan. Note also the sharp rate of increase in the provision of government services.

The manner in which the GOP plans to support the growth objectives through public sector investments is illustrated with the following data (₲ millions):1/

Public Sector Investments

	1975		1981	
Sector	₲ million	%	₲ million	%
Agriculture	3,516.7	20.0	7,933.8	21.6
Industry	1,174.4	6.7	4,913.8	13.4
Energy	3,444.3	19.5	2,640.8	7.2
Trans. and comm.	3,537.3	20.1	6,762.7	18.5
Education	482.4	2.7	1,527.0	4.2
Health	924.4	5.2	2,681.1	7.3
Housing	1,479.0	8.4	3,939.5	10.7
Commerce	2,166.2	12.3	4,380.0	11.9
Other	896.6	5.1	1,906.7	5.2
Total	17,621.3	100	36,685.4	100

Source: Plan Nacional de Desarrollo Económico y Social.

1/ These data reflect consolidated public sector expenditures. 1975 data are actual, and 1981 are projected. The Central Government budget accounted for 25% of total public sector investments in 1975; investments in public enterprises represented 28% and investments in official financial institutions, 41% of the 1975 total. The remainder was for municipalities and decentralized agencies.

As can be seen from 1975 data, past emphasis in public sector investment has been in the sectors agriculture, energy and transportation/communications. The share of investment in energy declines sharply by 1981, probably as a result of the new source of energy from Itaipú, financed by Brazil. Investments in industry show the most pronounced increase, and the share of investment to social sectors also increases significantly.

One has to examine the consolidated public sector budget (which includes the Central Government, autonomous agencies, municipalities and public enterprises) to determine the total flow of public resources into a given economic sector. This is illustrated in the table which follows and which reflects realized budget expenditures, both in the consolidated public sector budget and in the Central Government budget for FY 1975. According to the Central Government budget, Agriculture got only 3.8% of total expenditures, a very low share for the most important sector of the economy. In the consolidated budget, however, Agriculture's share of total expenditures is 15.4%, and its share of capital expenditures is 20.8%.

COMPARISON OF EXPENDITURES FOR AGRICULTURE
WITH TOTAL EXPENDITURE IN GOP BUDGET
(₡ millions)

GOP Consolidated Public Sector Budget, FY 1975

	Total Expenditures	Total Expend. Agriculture	%
Current Expenditures	16,835	1,682	10.0
Capital Expenditures	16,878	3,517	20.8
	33,713	5,199	15.4%

GOP Central Budget, FY 1975

	Total Expend. (GOP Budget)	Total Expend. Agric. (GOP Budget)	%
Current Expenditures	14,593	570	3.9
Capital Expenditures	4,969	180	3.6
	19,562	750	3.8

Sources: a) Informe Financiero Ejercicio 1975, Ministry of Finance
b) Plan de Desarrollo Económico y Social, 1977-1981.

The country's balance of payment estimate for 1976 and projections for 1977-1981 appear as follows ($000):

Balance of Payments Estimates, 1976-1981

Sector	1976	1977-81 Ave.
Exports	193,738	269,483
Imports	-257,006	382,825
Commodity balance	- 63,268	-113,342
Net services	- 55,313	- 60,523
Transfers	8,000	8,000
Current balance	-110,581	-165,865
Non-Monetary Capital	155,581	202,465
1. Private Long Term	102,442	129,856
a. Which: Itaipú & Yacyretá 1/	84,000	97,000
b. Loans	30,000	44,788
c. Amortization	- 11,558	- 11,932
2. Public	53,139	72,609
a. Loans	76,477	109,134
b. Amortization	- 23,358	- 36,525
Change in Reserves (- = increase)	- 45,000	- 36,600

1/ This represents a combination of current earnings from exports and capital transfers. STP gave no breakdown for the estimate and chose to include it all under private capital, since the export earnings on current account were considered to be temporary. According to the Central Bank, virtually all of this amount should be in the current account as exports of goods and services. The subject was discussed previously in Section (1) in terms of Central Bank balance of payments data for 1976, which are more current and, therefore, more reliable for that year.

Source: Plan Nacional de Desarrollo Económico y Social.

The striking aspect of the projections above is the very sizable foreign exchange earnings deriving from Itaipú and Yacyretá, without which sizeable annual declines in reserves, rather than increases, would have occurred. One could also conclude that since foreign exchange reserves at the end of 1976 ($158 million) were equivalent roughly to six months of imports of goods and services, no further increase in reserves was required. Ipso facto, one could argue that the annual increase in external public loans projected was not needed, since it only serves to increase foreign exchange reserves above requirements. Since the service on public external debt amounted to only 11.6% of total export earnings from goods and services in 1975, a relatively low ratio, one can understand why the government takes a liberal view of external borrowing. On the other hand it is possible that the yield on foreign exchange reserves invested in short-term obligations exceeds annual payment obligations incurred from long-term concessional loans to the public sector.

Policies in Support of Planned Development

Economic projections mean little without a supporting set of policies that help establish the conditions under which their realization is feasible. The critical policies of the Plan that must be considered are those affecting exports, agricultural and industrial output, monetary and credit conditions and public finance. In a sense all of these policies interact to the common purpose of strengthening the country's balance of payments--that keystone to achieving the Plan's objectives. As the Plan recognizes, the country's future development is inextricably linked to international trade, since the domestic market is too limited to offer much scope for growth. The strength of the country's projected foreign exchange and overall balance of payments situation was described in the preceding section. It was also pointed out to what degree the strong position had to be attributed to the special circumstances surrounding the construction projects at Itaipú and Yacyretá.

Exports: The policies in existence or recommended for promoting exports which are to be continued or further strengthened are listed as follows:

a. Adjustments to current [illegible]

c. The granting to exporters the right of "temporary admission" of imports and "draw back" of foreign exchange earnings.

d. The Paraguayan Export Council (CEPEX) must continue to develop overseas markets by sponsoring trade fairs and expositions, by establishing foreign trade missions and by doing studies of foreign markets.

e. The provision of technical assistance to export concerns.

Without specifying what it had in mind the Plan exhorted the Central Bank to examine the possibilities of establishing an institution to finance programs of export development. Since the country is totally lacking an institution to provide equity finance, A.I.D. should consider supporting the establishment of a corporation for the promotion of equity investment in export industry. It might be called Corporación de Inversiones y Exportaciones (COINEX). CEPEX has scheduled the preparation of a draft report on a system of financing exports, as well as the preparation of a draft law on export finance, for the months of May to September, 1977.

Agroindustries: The Plan's discussion of policy in support of agroindustries is very brief and is limited to a discussion of the advantage of Law 550 for industries that produce for export or produce products that could substitute for imports and to Central Bank credit policy designed to assure that at least 25% of total credit is directed to industry. There is also brief mention of the draft of a Capital Market Law which has been under consideration by the Government since mid-1975. The Plan urges that the law be acted on as soon as possible.

The only identifiable policy in support of import substitution is embodied in Law 550, which was passed in 1975. Only 67 firms were able to take advantage of the law in 1976, and they appear to have been among the largest firms in the country; the average firm had 52 employees and ₲62 million ($494,000) of invested capital. This confirms what was told to us by a leading producer in the metals engineering industry-that small- or medium-sized producers lacked the influence and know-how to take advantage of the law. The country lacks any institution or program dedicated to providing general financial and technical support for small-scale firms, perhaps the single most important weakness in the country's industrial development program.

Money and Credit: The money and credit program of the Plan consists of an effort to reduce the rate of growth of money and credit relative to rates realized during the past five years and to raise the rate of increase of credit to industry relative to other sectors.

Changes in the money supply and credit during the two periods under consideration were as follows:

Rates of Change in Paraguay's Money Supply and Credit, Projected and Actual, 1970-1981

Item	1970-1975 Actual % Change 1/	Projected 1976-1981 ₲ millions	% Change 1/
I. Total Money Supply (M^2)	+22.4	+42,040	+13.8
II. Active Money Supply (M^1)	+20.3	+20,074	+13.2
(Causal Factors)			
Net Credit to Private Sector	+15.1	+25,233	+12.5
Net Credit to Public Sector	minus	- 2,488	minus
Net Foreign Exchange (₲ millions)	+14,039	+23,058	+16.7

1/ Average annual percent change.

Source: Plan Nacional de Desarrollo Económico y Social; Banco Central, Boletín Estadístico.

The increase in the accumulation of foreign exchange reserves is to be a principal factor influencing the expansion of the money supply. To prevent an excessive expansion of credit, net credit to public sector is to contract. In view of the gradual increase in the monetization of the economy and the more rapid rate of economic growth during the Plan period relative to the historical period 1970-1975, the projected monetary expansion could be considered conservative. It certainly reflects a serious effort to curb inflation. No mention is made of interest rate policy or the foreign exchange system and exchange rates. Consequently, monetary policy under the Plan is limited to controlling the expansion of the money supply.

Central Bank policy is directed to assuring that an adequate volume of credit is directed to agriculture and industry. STP estimates that in 1976, 33.1% of the banking credit (including BNF) was directed to agriculture, 27.1% to industry and 33.3% to commerce. The Plan projects that by 1981 agriculture will receive 30.7%, industry 31.2% and commerce 33%. Again emphasis is given to industry in conformity with Plan strategy.

Public Finance: The public sector budgets constitute a vital part of the overall plan. They are so constructed as to show overall surpluses, since external aid exceeds domestic financing requirements. Consequently they are designed to support the policy of monetary and credit restraint. The table below depicts the Central Government and Consolidated Public Sector Budgets:

GOP Budgets, Projected and Actual, 1975 and 1981,
Central Government and Consolidated Public Sector (₡ millions)

Item	1975 Realized		1981 Projected	
	Central Govt.	Consolidated Public Sector	Central Govt.	Consolidated Public Sector
Current Revenues	17,894	23,292	32,900	43,239
Tax	15,877		29,342	
Non-Tax	2,017		3,558	
Current Expenditures	14,412	16,835	23,988	28,226
Current Surplus	3,482	6,457	8,912	15,013
Capital Receipts	2	1,598	-	3,308
Availabilities	3,484	8,055	8,912	18,321
Capital Expenditures	4,213	16,878	10,598	27,254
Deficit	- 729	- 8,823	- 1,686	- 8,933
Financing	729	8,823	1,686	8,933
Net External Resources	1,363	9,791	2,259	9,260
Net Internal Resources	- 175	321	- 461	49
Balance (- = surplus)	- 459	- 1,289	- 112	- 376

Source: Plan Nacional de Desarrollo Económico y Social.

Accumulated surpluses during the Plan period from the Consolidated Budget amounted to ₲3.3 billion, of which ₲764 million derived from the Central Government Budget.

It is striking to note the great increase in expenditures and the slight decline in net external resources available to finance expenditures. The Plan calls for financing the increase in expenditures from the increase in tax revenues; tax revenues as a percent of GDP (expressed in 1972 prices) are to increase from 13.3% in 1975 to 16% in 1981. This implies an elasticity of tax revenues with respect to real GDP of greater than 1, which has not been the case in the past. As a consequence, the Plan calls for tax reform to raise the volume of revenue and the elasticity of the tax system.

The Plan proposes the introduction of a global personal income tax and an increase in taxes on land and property. It also proposes that the property tax be based on a cadastral survey, when possible, and that it be made mildly progressive. Finally, it proposes to rationalize existing indirect taxes with a view to greater equity and to eliminating the negative economic effects of certain taxes. More specifics about tax policy are not supplied, but we understand that the OAS is assisting the GOP in formulating new tax policies, and that taxation will be made a principal subject of discussion at a forthcoming OAS country review of Paraguay.

The Development Plan and the Poor Majority

The National Five-Year Plan incorporates no specific strategy for the "poor majority." It recognizes that a serious problem of underemployment exists which affects roughly half the population in urban and rural areas. Underemployment and unemployment are said to be equivalent to a 36% underutilization of the rural labor force. The Plan implies, if it does not so state, that the economic growth rate projected will be sufficient to reduce underemployment and unemployment. Likewise, the general strategy of the Plan makes no specific reference to the problem of income distribution. Nevertheless, it is clear that some of the country's key development policies should contribute to a more equitable income distribution and to an improvement in the welfare of the poor majority. The proposal for a personal income tax and for an increased property tax with greater progression should have this effect. Another example is the plan to increase investments greatly in the social sectors--housing, health and education.

Essentially the AID Program, especially such projects as the Small Farmer Sector Loan, Rural Based Community Development, Market Towns, Rural Roads, the Productive Credit Guaranty Program, Small Industry Development Corporation and Rural Enterprises Loan, is directed to raising income and employment among a segment of the rural population that constitutes roughly 70% of the rural poor.

B. Mission's 3-to 5-Year Strategy, Goals and Proposed Range of Resource Requirements

The Mission's overriding goal is to achieve a permanent improvement in the standards of living and future prospects of targeted low-income families. Specific goals and our strategies for their accomplishment are as follows:

a. Increasing income from agricultural employment through the strategy of identifying alternative products for which there are expanding internal or external markets.

b. Increasing opportunities for off-farm employment through the strategy of stimulating non-farm alternative opportunities for labor employment.

c. Increasing benefits from public sector goods and services through the strategy of strengthening the socio-economic infrastructure (institutions) in rural areas.

USAID/Paraguay's projects are ordered below in connection with the goals they address. Some projects are listed more than once if they make major contributions to more than one goal. In fact, one could argue that each project contributes to all three goals. For project information, please consult the FY 1979 Annual Budget Submission which is being submitted concurrently with this paper.

Goal: To increase income from agricultural employment.

The following projects are designed to promote the development, production, processing and marketing of small-farm outputs:

Food and Nutrition

a. Credit Unions - FY 1975 loan of $3,000,000 under disbursement; FY 1969-1980 grant, $2,006,000.

b. Rural Enterprises - FY 1976 loan, $2,500,000.

c. Market Town Development - FY 1975 loan, $5,000,000.

d. Small Farmer Sector Program - FY 1978 loan of $7,500,000 and grant of $1,000,000.

e. Minifundia Crop Intensification Research - FY 1979 grant of $1,500,000.

f. Market Planning and Technical Assistance - FY 1979 grant of $685,000.

g. Land Title Improvement - FY 1979 grant of $150,000.

h. Small Farm Land Resources Identification - FY 1979 grant, $800,000.

i. Credit Expansion - FY 1980 loan, $8,000,000.

j. Crop Intensification Promotion - FY 1981 loan, $5,000,000.

k. Local Marketing Infrastructure - FY 1981 loan, $5,000.000.

l. Small Farmer Sector Program II - FY 1982 loan, $7,000,000.

m. Soil and Water Resource Development - FY 1982 grant, $900,000.

Goal: To increase opportunities for off-farm employment

The Mission's proposed industry sector activities and some agricultural projects are designed to contribute to this goal:

Food and Nutrition

a. Credit Unions - FY 1975 loan of $3,000,000 under disbursement; FY 1969-80 grant, $2,006,000.

b. Rural Enterprises - FY 1976 loan, $2,500,000.

c. Market Town Development - FY 1977 loan, $5,000,000.

Section 106 - Industry

a. Production Credit Guarantee Program - FY 1977

b. Small Manufacturing Industry Development - FY 1979 grant, $330,000.

Goal: To increase benefits from public sector goods and services.

Relevant projects include:

a. Credit Unions - FY 1975 loan of $3,000,000 under disbursement; FY 1969-1980 grant, $2,006,000.

b. Market Town Development - FY 1977 loan, $5,000,000.

c. Rural Roads - FY 1977 loan, $5,000,000 - FY 1981 loan, $5,000,000.

d. Community-Based Area Development - FY 1978 grant, $600,000.

e. Minimum Cost Services to Colonists - FY 1980 loan, $2,500,000.

Education

a. Rural Non-Formal Education - FY 1975-1979 grant, $300,000 extension being requested.

b. Rural Radio Education - FY 1976-1978 grant, $601,000.

c. Bilingual Education - FY 1978 grant, $800,000.

d. Primary/Community Education Improvement - FY 1979 loan, $8,000,000.

e. Non-Formal and Vocational Education - FY 1981 loan, $4,000,000.

Health

a. Sector Assessment - FY 1978 grant, $100,000.

b. Health Sector Loan - FY 1980 loan, $5,000,000; FY 1983 loan, $5,000,000.

Population

Population Project - FY 1979-1983 grant, $2,500,000.

The FY 1979 Annual Budget Submission should be consulted for the Mission's manpower requirements.