CHEMONICS

AGRICULTURE SECTOR STRATEGY REPORT

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TABLE OF CONTENTS

TABLE OF CONTENTS
(continued)

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EXECUTIVE SUMMARY

We begin our Agricultural Sector Strategy Report, section I, with a very brief overview, of the Honduran economy and the Honduran agricultural sector. Section II is entitled "Identification of Constraints." In it, we examine the agricultural sector in detail, placing Honduran agricultural policy in a macro-economic context, discussing conceptual agricultural growth models, and describing beneficiary groups. From this discussion, we derive a list of principal constraints and analyze each of them in depth. These are as follows:

- o Limited investment, capital flight, and excess capacity in the non-agricultural sector
- o Restricted demand for agricultural output
- o Wide dispersion of population and production
- o Limited resources of rural families
- o Continuing deterioration of natural resources
- o Limited capacity of public sector institutions

In section III, we undertake a short discussion of AID goals and objectives, including the relationship of the current agricultural portfolio to these goals, and a recommendation concerning selection criteria for new project initiatives.

In section IV, we set forth our proposed agricultural sector strategy for new project identification and we make a number of policy and program proposals that are keyed directly to the constraints identified in section II. In essence, the strategy we propose focuses on three major lines of endeavor.

- o A trade-off between economic stabilization and enough agriculture-led growth to offset declining prices and restrictive demand;
- o Regional market town development to obtain the benefits of agglomeration;
- o Programs and policies to obtain enhanced but sustainable production levels from the natural resource base.

These three lines of endeavor are supported by a fourth: the effort to improve sectoral capabilities in policy analysis and monitoring. The rationale for each endeavor can be summarized as follows.

Achieving Agricultural Growth

Agricultural production is sensitive to demand as transmitted in price signals. Economic growth--expanding per capita incomes--translates to greater acquisitive power and higher demand for food, raising prices and drawing out additional production. Conversely, the sharp decline in per capita income since 1984 has reduced demand.

Given the dominance of agriculture in the Honduran economy, we believe that a reversal of this trend must start in the agricultural sector through a renewal of growth. It will not occur, however, without a revision of trade, monetary, and fiscal policies, which, in obedience to stabilization objectives, have been very conservative. On the positive side, the GOH has moved to a relatively free market price policy for food, inflation is relatively low, interest rates are positive, overevaluation of the currency is moderate, and excess capacity abounds. In the agricultural sector, however, prices have declined sharply in the 1980s, by about 30 percent relative to other prices in the economy. Agricultural credit is extremely restricted, and agricultural fiscal measures (land taxes, tariffs and export taxes, subsidies and public works) have perverse impacts on agricultural investment and land use. However measured, it is clear that farmers' profit margins and purchasing power have been eroded substantially in this decade--absolutely and relative to other sectors.

We believe that the time has come to seek some trade-off between stabilization and growth. We are convinced that a less restrictive monetary policy is essential to stimulate agricultural growth, as is a modest improvement in the very unfavorable terms of trade from which the agricultural sector suffers. Given the high relative levels of protection of domestic manufacturing, the excess capacity in industry and agriculture, and the low level of inflation, we believe that such a tradeoff can be accomplished with very limited damage to stabilization. Specific measures to accomplish this are discussed in our report.

Regional Market Town Development

Agricultural production takes place in a physically dispersed environment. A system of product and factor (input) markets that will serve these dispersed producers efficiently requires a differentiated economic structure based on the development of regional market towns. Regional market towns are central places that serve dispersed production areas and collect their output. As public and private infrastructure builds up in and around such towns, their attractiveness for investment

expands. Individual businesses serve each other as well as the surrounding area, and provide both service and consumer bases for other industries. The agglomerative effects of such growth (through linkage and multiplier effects) expands the impact of investment on employment, income, and output more than the sum of the individual parts.

We propose that the mission take advantage of this synergism by shifting the loci of its current investments from the metropolitan centers and widely dispersed rural infrastructure projects and concentrating them in and around a half dozen secondary cities with 15-30,000 people, which we call regional market towns. This is not a project per se, but a reorientation of the investments the mission is already making in health, agriculture, education, employment generation, rural roads, etc. For optimum impact, this shift in AID investment should be accompanied by a similar shift in investment by the GOH and other donors.

Enhancing the Sector's Resource Base

Honduras is endowed with an extensive, but not very productive natural resource base of land, water and natural vegetation, which together form a potentially sustainable agricultural resource base. Honduras has followed an implicit policy of using these natural resources to absorb (and thereby obscure) the problems of a rapidly increasing rural population. This policy is quickly becoming non-viable, given the limited unused land resources and the serious deterioration of those that are under unsuitable use.

Two-thirds of Honduras' land area is classified as only suitable for permanent forest, based on such land use criteria as soil depth, erodibility, steepness, etc. Unfortunately, the indiscriminate clearing of such land for lumbering, cultivation and grazing has led to severe deterioration. The steeplands are now occupied, and most of their occupants have no alternative survival options. The restoration of the land and watershed resource and its eventual return to forest must occur while many of the occupants remain in place and until other options become available to them.

Overcoming the resource constraint requires finding ways to deal with multiple problems that have their root in improper policies and practices and together result in disincentives to maintain the resource. A suitable response to the issue would alter land titling and taxation policies, timber sale practices, and other policies affecting land use. It should pursue four objectives:

o Replacing the current laissez faire policy favoring

spontaneous settlement with one that limits new settlement to land with suitable characteristics.

- o Assisting marginal hillside farmers to adopt productive, low-cost conservation technology while alternative options are pursued over time.

- o Improving forest management and improving incentives for forest protection and rational use.

- o Improving the productivity of land suitable for permanent agriculture through irrigation development and the application of science-based technology, as the most sustainable means to meet national production requirements.

Improved Capabilities for Policy Analysis and Monitoring

Agricultural policy analysis supported by reliable statistics is essential for examination and choice among alternatives and support for policy dialogue. We hope that USAID/Honduras can continue to provide support to the policy analysis units of MNR and ADAI and assist in their institutionalization. We urge mission support of the upcoming agricultural census and the associated revision of the area sampling frame, as well as the conduct and analysis of a rural household income/consumption study.

Policy dialogue should concentrate on the following areas:

- o Trade and Exchange Rate Policies. Seek the devaluation of the exchange rate to a level of equilibrium. Alternatively, balance the protection levels between agriculture and industry by raising the price of PL-480 wheat; increase the tariffs on agricultural imports; reducing subsidies to sugar; eliminate or reduce the coffee tax; allow all agricultural exporters to retain their foreign exchange earnings.

- o Agricultural Credit Policies. Seek an increase in lending for agriculture. The specific means for accomplishing this increase are to be determined by a team programmed to arrive shortly.

- o Fiscal Policies. Realize fiscal savings and greater efficiencies through privatization of decentralized agencies, reduction of the number of salaries supplemented by PL 480-generated local currency, and the shifting of PL-480-generated local currency to selected rural areas. Raise additional revenues and encourage more productive use of land by imposition of a tax on agricultural land.

- o Land Policies. Besides the recommended land tax, we recommend a review of agrarian and water laws to eliminate inconsistencies and distortions, and a modification of practices to relieve uncertainties. These changes would include extending usable titles to agrarian reform beneficiaries and smallholders, and eliminating certificates of non-affectability and other arcane procedures.

Finally, in section V of this report, entitled "Conclusions and Recommendations," we provide specific program recommendations (including reallocations, rollovers, and agricultural aspects of mission-wide efforts) that are time-phased as follows:

Near-Term (FY 1988-1989)
- Land Use Productivity Enhancement (LUPE)
- Regional Market Town Development
- Rural Access Roads III
- Policy Analysis
- Agricultural Education

Mid-Term (FY 1990-1993)
- Land Market Policy and Practice
- Agricultural/Agribusiness Credit
- Metropolitan Self-Financing
- Export Promotion/Import Substitution
- Improved Technology Generation and Transfer System

Long-Term (FY 1994-1997)
- Continued Rollover/Redesign of Agricultural Portfolio
- Market Town Development
- Professional Agricultural Education

SECTION I

ECONOMIC AND SECTORAL OVERVIEW

A. Economic Overview

Honduras has a small, open agrarian economy. Its per capita income of $624 is the lowest in Central America, and the second lowest in the hemisphere. The rural per capita income is less than half the average. Although the economy expanded at a respectable rate from 1970 to 1979, with real GDP growing at 4.75 percent per annum, the social and political unrest that jarred the region in 1979 not only halted private investment but led to considerable capital flight. From 1980 to 1985, the growth rate slowed markedly to less than 1.0 percent per annum. As a consequence, real per capita real GDP was no higher than it had been in 1970.

Agricultural growth during this period was greater than that of the economy as a whole, but the relatively better performance of the agricultural sector did not lead to an improvement in the relative position of agricultural producers. The internal intersectoral terms of trade have been moving against agriculture since 1970, and particularly since 1978, reducing rural purchasing power. Rural-urban migration has increased significantly during this period, but rural population has also increased because of the high rate of population growth.

Real private consumption grew more slowly than real GDP from 1970 to 1984, so in per capita terms it actually declined by about 7 percent. The most rapidly growing components of GDP has been government consumption, followed by fixed capital formation. Foreign trade activities have expanded less rapidly than GDP, so that Honduras has become a more inward-oriented economy. Within that economy, public sector expenditure has expanded at the expense of the private sector.

B. Economic Constraints (From the National Development Plan, 1987-1990)

1. Low Economic Growth

From 1976 to 1979 the economy grew at an annual real growth rate of 8.5 percent (GDP per capita = 4.7 percent, consumption per capita = 2.0 percent). The agricultural sector grew at 7.2 percent, based on recovery from hurricane Fifi, expansion of sugarcane, and expansion of agricultural credit and agroindustrial capacity. Public sector investment increased at an annual rate of 17.5 percent, primarily through the expansion

of road and energy networks and port installations, which in turn contributed to increased industrial capacity.

Thus, the period from 1980 to 1985 was marked by a loss of economic dynamism, accompanied by unemployment and caused by contraction of regional and international demand, reduction in foreign financing, and unfavorable terms of trade. GDP grew only 0.9 percent per year, whereas population grew at 3.0 percent, leading to serious deterioration of family living conditions. Global demand declined to an annual rate of 0.8 percent, gross investment diminished to 7.9 percent, despite public sector investment in the El Cajon dam, and internal savings declined from 17 percent to 9.3 percent. Agriculture grew by only 2.1 percent; adduced causes included unfavorable internal and external market demand, inclement weather, reduction in forest output due to lack of competitiveness, and inadequate performance of the reformed sector, due to inadequate credit and technical assistance coverage.

2. Financial Instability

The public sector has been since 1975 a major factor in economic development. However, it became a source of instability when public expenditure exceeded income and this deficit was covered by public borrowing in competition with the private sector. Costs increased at 12.4 percent, income by 9.0 percent, and the deficit by 11.7 percent. Debt service now represents roughly 50 percent of the deficit. Austerity measures reduced the deficit from 16.7 percent of GDP in 1983 to 13 percent in 1985.

Until the mid-1970s, the deficit in current account was manageable, and reserves increased. Beginning in 1979, international transactions deteriorated through a combination of the structural deficit and insufficient foreign financing, and a significant loss of reserves (in excess of $250 million) between 1980 and 1985. The low levels of trade during this period were combined with increasing debt service charges, which reached 27 percent of exports in 1985.

3. Unemployment

The sub-utilization (open unemployment and underemployment) of the labor force has grown from 11.3 percent in 1974 to 25 percent in 1984. A structural characteristic of the Honduran economy has been its inability, even in periods of favorable economic growth, to generate productive employment sufficient to absorb a rapidly growing labor force. Primary sector participation declined from 61 percent to 46.4 percent, while tertiary sector participation increased from 27 percent to 38.4 percent, reflecting displacement absorption in the informal

urban sector. In 1985, average production per worker was only L1,400, and only L900 in agriculture. This problem becomes particularly alarming in a country with 47 percent of the population under the age of 15. It has been further exacerbated by the need to absorb about 50,000 refugees from neighboring countries.

4. Diverse Regional Characteristics

The geographic distribution and use of natural resources has led to widely differing regional development profiles, with varied infrastructure and population densities. The country can be divided into four large zones with significantly different characteristics. The differences in these zones in current population density, productive potential, economic structure, and social infrastructure constrain the process of economic and social development and nation building.

- The central corridor unites the Pacific Coast (Puerto Henecan and Choluteca) with the Atlantic Coast (Puerto Cortez and San Pedro Sula), and includes major interior valleys, the cities of Tegucigalpa and Comayagua, and the Atlantic Coast to La Ceiba. This corridor generates 67.2 percent of agricultural production and a large part of industrial production.

- The western region is located to the west of the central corridor and borders El Salvador and Guatemala. This area has a high population density, a low level of urbanization and poor social infrastructure. Ninety percent of the population is engaged in agriculture despite the region's low potential productivity.

- The eastern region is located to the east of the central corridor, with a low population density, a low level of urbanization, high potential productivity, and limited infrastructure, but it is in the process of being incorporated into the national economy through growth in agriculture and agroindustry.

- The extreme eastern region is located beyond the agricultural incorporation frontier. It has a very low population density and is virtually without infrastructure. It has high potential as a forest resource, but is primarily a reserve for the future. Much of the extensive coastal plain included in this region consists of acid, poorly drained soils of limited fertility.

5. Unsatisfied Basic Human Needs

Average annual income of rural workers is below the minimum legal wage, and only slightly above the cost of the basic food basket (L377). Despite the urban concentrations of Tegucigalpa (600,000, growing at 5.7 percent) and San Pedro Sula (400,000, growing at 7.1 percent), most Hondurans live in 10,000 rural aldeas, which are poorly served by physical and social infrastructure. A high rate of population growth (3.0 percent) combined with heavy population densities in settled areas (central corridor and western region) stimulate rural-rural emigration to less populated zones and rural-urban movement to the two major and several smaller cities.

These factors have contributed to excessive infant mortality, high general mortality, and a life expectancy at birth of 62 years. More than 70 percent of the population under 5 years suffer from protein-calorie deficiency. There are shortages, from a nutritional viewpoint, of most of the products that form the basic food basket. Production has grown at a lower rate than population, and there has been a substitution of basic foods by more profitable products as well. The lack of purchasing power described is directly reflected in consumption.

Primary education is available to 82 percent of the 7-13 year population, but only through the third grade in rural areas. There is a high incidence of absenteeism, repetition and desertion, with only half of the rural youngsters who enter the first grade reaching the second. Only 5 percent of the matriculation in secondary schools is in priority technical careers in agriculture and industry. University education has increased at a rate of 12.6 percent, but, overall, the Honduran education system has not evolved to conform with international scientific and technological advances.

The housing deficit amounts to 500,000 units, compared with an annual formal production of 3800 units and informal sector production of 7000, mostly concentrated in Tegucigalpa and San Pedro Sula. Needs for power, water, sewage, and other public services are similarly unsatisfied.

C. Sector Overview (from Garcia, et al.)

Agriculture plays a dominant role in Honduras. The primary agricultural sector accounts for 27 percent of GDP. If agricultural processing and marketing were added, the value added generated from agriculture would approach half the total GDP. The rural share of the population is 61 percent, and exports from agriculture, forestry and fisheries consistently account for more than 75 percent of export earnings.

1. The Resource Base

The physical resource base for these contributions consists of narrow coastal plains on the Atlantic and Pacific, and a large number of temperate inland mountain valleys. Over 75 percent of the 42,277 square miles is mountainous. Only 25 percent is suitable for agriculture, and 66 percent should be dedicated to forestry, although part of the latter can also be used for grazing, and a significant part has been cleared for agriculture. Pine forests dominate the natural vegetation in the interior, with a variety of tropical hardwood species growing along the lower slopes and northern coastal plains. The swampy northeast coast is a mixture of wiregrass, pines and mangroves; it also borders the Pacific coast.

Rainfall defines the two seasons. On the north coast some 70 to 110 inches fall mostly between June and February, but up to 5 inches per month come in the March-May "dry" season. In the interior, from 40 to 70 inches fall from May to November, and on the Pacific coast, 60 to 80 inches fall from May to October, with a marked dry season. The rainy season is long enough to grow two annual crops, a larger primary and a smaller late crop of the same or different species. Interplanting is also common. Below 1500 feet elevation, mean annual temperatures range from 79 to 82 degrees; above 2000 feet, they drop to 66-73 degrees.

Plantation agriculture (bananas, sugarcane, African oil palm, pineapple, citrus, and cattle) dominates the northern coastal plain west of La Ceiba, where the best lands are found. The extensive flat lands in eastern Honduras are swampy. Interior valleys and slopes are primarily dedicated to small farm agriculture, with corn, beans, cattle and coffee predominant, but with a wide variety of lesser crops and classes of livestock. Although some 400,000 hectares are irrigable, only about 15 percent of this land is irrigated, mostly by private schemes for bananas, sugarcane, pineapples, rice and vegetables.

About 45 percent of the agricultural labor force of 675,000 are wage laborers and the rest are owner-operators or unpaid family labor. About 55 percent are illiterate. Open rural unemployment is estimated at 21 percent, with as much as 75 percent of the rest underemployed. The rural labor force grows by 2.5 percent each year.

2. Land Tenure

The total amount of land in farms and in pasture exceeds that classified as suitable for such use, yet there is considerable potentially productive but unused land, either because it has not been settled or because owners, including the state, lack the resources or the will to exploit it. The

agricultural census of 1974 classified 193,034 farms occupying 2,600,000 hectares. Land ownership was highly skewed, with 64 percent of the farms under 5 ha. holding 8 percent of the land, and 4 percent with more than 50 ha. holding 57 percent. Only one percent of farmers hold fee simple title, owing to the practice of issuing usufruct rights rather than full title. Inability to transfer title deprives the holder both of collateral and of the ability to capitalize his "sweat equity" and thus move to other areas or into other pursuits.

Land distribution has been recognized as a major problem since the last century, but only in the last quarter century have significant steps been taken to redistribute land, either through purchase or expropriation and redistribution. Pressures for redistribution have come about largely from invasions of large farms by rural groups, sometimes accompanied by violence. The agrarian law of 1962 authorized the legalization of campesino organizations, and ANACH and ANC played a significant role in pressures for redistribution, leading to allocation of more than 100,000 ha. in 1974 and 1975 to cooperatives, rather than to individual owner-operators. As of 1984, there were 1,941 reform cooperatives with 48,129 active members, occupying 215,136 hectares--without a single fee simple title.

Sector Institutions

Most public sector agencies have some role to play in the rural sector, given its importance. Those with the most important roles to play in formulation or execution of policy and programs directly affecting agricultural production are the following:

- The Ministry of Natural Resources (SRN)
- The Ministry of Planning (SECPLAN)
- The National Agrarian Institute (INA)
- The National Bank for Agricultural Development (BANADESA)
- The Honduran Corporation for Forestry Development (COHDEFOR)
- The Honduran Banana Corporation (COHBANA)
- The Honduran Coffee Institute (IHCAFE)
- The Bureau of Cooperative Development (DFC)
- The Honduran Institute for Agricultural Marketing (IHMA)
- The National Supply Agency for Basic Products (BANASUPRO)
- The National Board for Social Welfare (JNBS)

There are also several major national private organizations that are active in providing agricultural services or representation:

- o The Honduras Foundation for Agricultural Research (FHIA)
- o The Federation of Honduran Producers and Exporters (FEPROEXAH)
- o The Livestock Fund (FONDO)
- o The Union of Agricultural Service Cooperatives (UNIOCOOP)
- o The Honduran National Credit Union Federation (FACACH)
- o The Honduran Federation of Coffee Cooperatives (FEHCOCAL)
- o The Federation of Agrarian Reform Cooperatives (FECORAH)
- o The Honduran National Association of Campesinos (ANACH)
- o The National Union of Campesinos (UNC)
- o The National Federation of Honduran Farmers and Cattlemen (FENAGH)

In addition, there are operating in Honduras some ninety private voluntary organizations (PVOs), many of which provide services in rural areas. Because their humanitarian work is frequently concentrated on the poorest strata of the population, and commonly pursued over a long time in delimited rural areas, they provide a unique delivery system for technical advice and modest credit to groups which cannot otherwise be reached economically.

4. Structure of Farm Incomes

Four products dominate the gross farm-gate value composition of agricultural production: bananas (29.8 percent), coffee (21.1 percent), beef (10.2 percent), and corn (9.5 percent). The only one of the remaining 23 products that provides more than 3 percent of the total is pineapples (3.7 percent). Export crops account for 61.4 percent of gross value of agricultural output, with bananas (30 percent) and coffee (21 percent) dominant over pineapples, sugar, tobacco and cotton. Livestock products provide 18.3 percent, with beef (10.2 percent) followed distantly by poultry, pork, eggs, and milk. Staples amount to only 16.7 percent, with corn providing 9.5 percent. Beans, rice, sorghum, plantain, potatoes, and cassava follow well behind in that order. Oilseeds (1.6 percent), including palm oil, coconut and sesame, other fruit (1.5 percent), including oranges, grapefruit, mangoes, avocados, watermelon and melons, and vegetables (0.6 percent), primarily tomatoes, onions, and cabbage, make up the remainder.

From the viewpoint of employment generation, the perspective is different. Corn and coffee provide 24.3 percent and 24.2 percent of employment in the sector, respectively, followed at a distance by beef (7.4 percent), bananas (6.9 percent), tobacco (5.4 percent), sugarcane (5.2 percent), beans (4.7 percent), and forestry (3.5 percent).

Off-farm earnings provide almost 40 percent of family income in the 0-2 ha. farm size class. This proportion is reduced gradually to 28 percent (2-3 ha.) and 24 percent (3-5 ha.), then drops rapidly to 15 percent (5-10 ha.) and 10 percent (10-20 ha.).

Land in crops increases with each successive farm size class, but the percentage of farmland in crops declines, indicating an expansion in pasture, perennials and fallow, in that order. Cropping intensity (multicropping) also declines. The acreage planted to basic crops increases, and the percentage of cropland occupied by basic crops remains high (above 70 percent) through 10-20 ha., then declines to about 50 percent as traditional exports and industrial crops assume more importance. These 1981 figures do not include fishery products, including shrimp, and understate significant increases in pineapples, melons and several other non-traditional crops.

SECTION II

IDENTIFICATION OF CONSTRAINTS

A. The Agricultural System

Agriculture is

- o A primary economic sector, made up of
- o Private enterprises that use
  - = natural resources (soil, water, climate and
  - = productive inputs, which are
    - created by science (seed, fertilizer, chemicals) and
    - provided by agribusiness factor markets, in order
  - = to satisfy a product market demand (consumption, processing, export)
  - = in response to prices (relative to costs)
- o Its operations are levered
  - = physically by structures, machinery and equipment and
  - = financially by credit
- o These enterprises are supported and guided by
  - = public sector institutions that
    - provide technical and/or material assistance, and
    - moderate their performance through regulations and policies, and by
  - = private sector associations and agribusinesses that
    - serve individual producers and
    - represent them to public sector institutions
- o Private enterprise and its supporting institutions are managed by operators and professionals who are
  - = educated through schools, training and experience

The agricultural sector is also a complex system. It is in the nature of systems that the parts are interrelated, so that the system adjusts to (or is distorted) to fit the most limiting factors. It is also in the nature of systems that when one limiting factor is corrected, another limits further improvement. Development programs, therefore, must seek to identify and correct an interrelated group of constraints rather than focusing

on a single limiting factor. There are many ways of grouping these constraints for review. One traditional approach that provides a quick checklist of the sector is included in annex A, "A Primer on Agricultural Program Development."

The component enterprises of the agricultural system are widely dispersed in rural areas, which traditionally have received a pauper's share of public services, at least in part because of this dispersion. It has tended to limit the capacity of the human beings who manage these enterprises to react to market incentives and participate in development. The policies and programs that are directed at the rural/agricultural sector have tended to be designed explicitly or implicitly to achieve urban objectives at least cost, rather than to stimulate the progressive development of the agricultural sector. However, the experience of industrialized countries has demonstrated that national development objectives are reached more readily when a share of agricultural sector output is invested in providing rural residents with access to the education, health, and other opportunities routinely provided by the public sector to urban residents.

B. Honduran Agricultural Policy in the Macro-Economic Context

It is widely recognized that agricultural performance is quite sensitive to macro-economic conditions and policies, especially in economies like Honduras where agriculture is the dominant sector. The potential effects of agricultural investments and programs can be nullified by adverse macro-economic circumstances, or they can be enhanced if those circumstances are favorable.

By the same token, a strong performance in agriculture has multiplier effects throughout the economy. And those effects occur even at the local village level. The local effect has not been widely recognized until recently, but it has been documented in studies of IFRI's growth linkages program. Thus, macro-economic policies that are favorable to agricultural growth can be expected to stimulate a response, and to engender benefits throughout the economy. In the foreseeable future, industry is not going to be the engine of growth in Honduras. It is highly protected and inefficient by Central American standards, and also is small in scale. The primary stimulus for growth has to come from agriculture, if it comes from a producing sector. In some recent years, it has come from expansion of the public sector, but that is not a desirable long-term option.

The principal macro-economic policies affecting agriculture are exchange rate and trade policies, monetary and credit policies, and fiscal policies. As discussed below, they affect both the supply and demand sides of the agricultural economy.

They directly influence production and productivity, as in the case of credit availability for fertilizer purchase, but more generally they influence agricultural incentives. The incentives effect occurs through effects on the agricultural-nonagricultural terms of trade, or the index of agricultural prices relative to non-agricultural prices. The terms of trade are important for two reasons: because they determine the incentives to invest and adapt more modern technologies, and because they directly determine the purchasing power, or economic welfare, of farm households. In the Honduran case, the latter effect in turn influences nutritional levels for many lower-income households.

As stated earlier, in Honduras in recent years, the net result of policies and external conditions, with regard to the intersectoral terms of trade, has been negative for agriculture. Between 1979 and 1986, the purchasing power of agricultural incomes declined by about 30 percent (see table II-1). That is a sharp decline by any standard, and sharp enough to undermine the effectiveness of most agricultural development programs.

Partly as a consequence of this trend, the growth rate of agricultural GDP has declined in recent years. In the last half of the 1970s, and even into the early 1980s, agricultural GDP expanded more rapidly than GDP in the rest of the economy. Since 1983, however, agricultural GDP has grown at less than half the rate of non-agricultural GDP (table II-2). Another consequence is that average nutrient availability has been declining, and at a more accelerated rate since 1983. These trends and consequences clearly are unacceptable for policy planners in a country that still is mainly agricultural, and whose nutritional levels are low.

In the following paragraphs, each of the three main components of macro-economic policy are reviewed in terms of their effect on Honduras' agricultural economy, starting with trade and exchange rate policies.

For several years there has been a consensus among economic observers that the Honduran exchange rate is overvalued. There are no precise measurements of the degree of overvaluation, but the current conventional wisdom suggests about 20 percent. Recent quantitative studies in other Latin American countries (Peru, Columbia, México) have lent support to the general proposition that an overvalued exchange rate worsens the intersectoral terms of trade from an agricultural viewpoint. This proposition is becoming widely accepted among specialists in agricultural development. Hence it is quite likely that exchange rate policy has been a contributing factor in the decline of the purchasing power of Honduran farm incomes.

TABLE II-1
MEASURES OF INFLATION
(Annual percentage rates)

	1979-86	1983-86
GDP deflator	6.4%	4.5%
Ag. GDP deflator	3.3%	2.7%
Non-ag GDP deflator	7.4%	5.1%
Wholesale price index	6.0%	1.0%
Consumer price index	8.1%	4.1%
Food CPI	5.8%	-0.5%
Non-food CPI	9.5%	5.6%
Indexes	1979	1986
Non-food CPI/food CPI	1.000	1.277
Non-ag GDP deflator / Ag GDP deflator	1.000	1.310

TABLE II-2
REAL GROWTH RATES IN AGRICULTURE
AND IN THE AGGREGATE ECONOMY
(Annual Percentage rates)

	1978-86	1983-86
GDP at Market Prices	2.0	3.1
GDP in Agriculture	1.9	1.5

NOTE: The data are expressed in 1978 constant prices.

Source: Calculated from data in USAID/Honduras, Program Assistance Approval Document, Economic Stabilization Facility, Tegucigalpa, 1987.

It appears, however, that Honduran authorities are determined not to devalue. In the absence of devaluation, natural pressures have arisen in the economy for compensating measures, and some of these have been put in place. A variety of tariffs, including surcharges, have been implemented. In addition, quantitative restrictions are in force. These measures favor import-competing products but do not help exports, so very recently a type of parallel foreign exchange market has been implemented for some kinds of exports. That market allows exporters to apply some of their foreign exchange earnings to the purchase of imports, thus avoiding the delay and uncertainty in obtaining foreign exchange through the Central Bank's rationing system.

These measures would have been less necessary, or less significant in magnitude, had the exchange rate not been overvalued. Unfortunately, these measures have, on the whole, been strongly biased against agriculture. Berlinski (1987) estimates the effective implicit protection (including the effects of quantitative restrictions and correcting for protection on inputs) to be 99.4 percent for Honduran industry in general. That is, domestic value added per unit of output is almost twice what it would be at international prices. In contrast, the most recent World Bank study and other evidence (cited in Garcia et al, 1987) indicates very little protection in basic grains, and negative protection in corn. If, as it seems likely, industrial protection has increased in recent years, then this evolving pattern of protection has been another contributing factor to the worsening agricultural terms of trade.

Berlinski also found a highly uneven pattern of protection across products. Illustrative protection rates in agro-industry are as follows: -245 percent in grain milling, -367 percent in meat processing, and +393 percent in sugar milling. Thus the prevailing prices are sending signals for a very inefficient pattern of resource allocation across sectors, and this in turn means reduced growth rates of output.

The price effects of trade and exchange rate policies are equivalent, from the viewpoint of farmers, to a reduction in demand for their products. The exchange rate policy also has reduced demand more directly by lowering the attractiveness of Honduran exports in world markets. It has had an equivalent effect by encouraging imports to displace domestic supply sources in cases where protection has been low or non-existent (e.g., wheat).

A solution to some of these problems would be to raise the negative or neutral agricultural protection rates while lowering industrial protection rates. A general policy of lowering protection rates has been adopted, but protection will not be

eliminated, and so the new policy could be satisfied with lower average rates of protection that are more nearly uniform. That also could be consistent with raising some key agricultural protection rates. Otherwise, protection will continue to be biased against agriculture, even after implementation of the tariff reforms that are presently contemplated.

One way to increase the protection to agriculture, i.e., to compensate for the overvalued exchange rate, would be to raise the internal price of imported wheat that is charged to millers. This measure is discussed below in the context of fiscal issues, for it would budgetize the windfall gains that millers have been receiving recently, but it is primarily a measure to remove the implicit subsidy to wheat and to remove some of the distortion in relative agricultural prices.

For other imports, a modest tariff of around 20 percent can be contemplated. The parallel exchange system (the autofinanciamiento market) cannot be readily applied to other agricultural imports, as they are not tied to any particular exports. It should be noted that the tariff could be removed upon a devaluation, and in fact for agricultural products, political pressures would be in favor of such a step. Also, a devaluation that is tied explicitly to tariff reduction would be less inflationary than a simple devaluation.

At the same time, it is important to find a better substitute for the current parallel market exchange rate for exports. The current system is accessible only to certain categories of exporters and exports, and it is very open to abuse and fraud. A much prefered alternative would be a straightforward CERTEX or CAT system, under which all exporters could sell their foreign exchange to the Central Bank at a preferential rate. Such systems are in use in several Latin American countries.

Incidentally, without such a system, or some more extensive version of the present system, the prevailing patterns of protection are distinctly biased in favor of import-competing products (except basic grains!) and against export products.

Turning to monetary and credit policy, of course, it too affects demand for agricultural products by affecting the overall growth performance of the economy. In that respect, the tight money policy of recent years has been unfavorable for agriculture. But there are more specific effects in agriculture. First, agricultural credit is expensive (around 15 percent real interest rates). Second, and more importantly, agricultural credit supplies are very limited, in light of international standards and also in light of the needs of Honduran agriculture. As early as 1981, an AID-sponsored study (Graham et al.) found

insufficient and declining amounts of agricultural credit. A very recent study (Ponce, 1987) shows that in basic grains the proportionate amount of credit available in Honduras is far below that in El Salvador and Costa Rica (table II-3).

In corn, about 10 percent of the cultivated areas have been financed with bank credit in Honduras, versus about 38 percent in El Salvador and 48 percent in Costa Rica. In beans, the corresponding figures are 6 percent in Honduras versus 31 percent in El Salvador and 35 percent in Costa Rica. In rice, it is 28 percent in Honduras, versus 81 percent in El Salvador and 80 percent in Costa Rica.

These figures accord with informal assessments in Honduran agriculture, which suggest an extreme scarcity of institutional credit. Agriculture is uniquely dependent on short-term credit, given the long time lapse between incurring costs and reaping economic returns. And for most Honduran farmers, it is very difficult, if not impossible, to purchase fertilizer without credit. Honduran rates of fertilizer use are among the very lowest in Latin America, and raising these rates is perhaps the singlemost effective way to raise agricultural output and incomes; hence the importance of agricultural credit.

In 1986, the total volume of credit expanded by 6.8 percent, and credit in the private sector by 8.1 percent. For 1987, the official monetary targets call for expanding private sector credit by 8.3 percent (using the midpoint of the target range). This target still constitutes monetary austerity.

While it will not allow a large expansion of medium-term and long-term credit in agriculture, the target can be consistent with a considerable expansion of short-term credit, for the following reason. Monetary targets refer to the change in the total outstanding amount of credit as of December 31 of each year, and crop credit is paid back within the year. In order to be implemented, the official targets also are decomposed into quarterly targets, by interpolating between end-of-year figures. If the quarterly targets were relaxed to allow seasonal fluctuations while still maintaining the annual targets, then short-term agricultural credit could be expanded by large amounts while still keeping a tight money policy.

To the extent that additional credit were spent on hired labor in addition to fertilizers, then it would contribute to higher rural incomes, a large part of which is spent on food consumption.

TABLE II-3

Percentage of Cultivated Area in Basic Grains Financed by Agricultural Banks

	Honduras	El Salvador	Costa Rica
1. Corn			
1983/84	12	34	43
1984/85	11	42	55
1985/86	8	n.a.	46
2. Beans			
1983/84	6	28	34
1984/85	7	34	37
1985/86	4	n.a.	33
3. Rice			
1983/84	45	84	81
1984/85	26	77	76
1985/86	14	n.a.	82
4. Sorghum			
1983/84	5	18	61
1984/85	5	19	75
1985/86	3	n.a.	86

Source: J. Mario Ponce C., "Propuesta de un Modelo Experimental de Crédito para los Pequeños Productores de Granos Básicos, Eje IV, "preparado para el BCIE, doc. num 36/87 del Ateneo de la Agroindustria, Tegucigalpa, julio de 1987.

Other constraints must be relaxed in order for the agricultural credit supply to improve substantially. One constraint takes the form of a banking law requiring urban real estate as loan collateral. It might be well to consider alternative forms of new legislation in this area.

Another constraint is the inherent reluctance of many private banks to lend in agriculture. In part this reluctance can be overcome by wider use of the concept of rediscounting agricultural loans at a favorable rate, a concept that has been put into practice via the coffee trust fund and has been implemented successfully in other Latin American countries. A third constraint is found in the prevailing high interest rates. Regrettably, as long as there is a tight monetary policy, interest rates will be high and must remain high for agriculture in order to maintain the interest of private banks.

That small-scale agriculture is bankable has been demonstrated by various past experiences, including the present program of using community loans (to grupos solidarios). What appears to be needed is some incentive for commercial banks to start gaining more experience in agriculture. The fact that most of them are controlled by industrial interests tends to work against their active involvement in agriculture, so a fresh start needs to be made. It is recommended that the forthcoming study on economic policies give special attention to options within the agricultural banking sector.

Turning to fiscal policy, the general concern of agriculture is that the restrictive fiscal policy is not conducive to satisfactory levels of economic growth and hence not conducive to a satisfactory expansion of demand for agricultural products. Here the general point needs to be made that excess industrial capacity in Honduras is now reaching the level of 40 to 50 percent of installed capacity. Under these conditions, an acceleration of the overall economic growth rate is not likely to be inflationary. And in this regard, foreign assistance can play an important role to safeguard economic stability. If the inflation rate were to increase at some point in the future, the most effective immediate remedy would be to increase import volumes. This remedy is particularly effective when imports are made cheaper by an overvalued exchange rate. Hence an expressed willingness of external donors to increase import financing on fairly short notice could provide an important safeguard against an unexpected acceleration of inflation, and it would allow relaxation of fiscal and/or monetary policy in the near term.

At a more detailed level, agriculture can contribute to national fiscal policy goals by making more efficient use of fiscal resources in the sector, in net terms. One measure that has been discussed is a land tax, which would raise fiscal revenues while encouraging more intensive use of land and possibly encouraging a reallocation of land holdings away from larger holdings to those of medium and small scale. A land tax is an economically efficient tax, for it does not encourage resource allocation towards any particular crop.

At the same time, distortions in the sector would be reduced by lowering the coffee tax. In contrast to most other products in the economy, coffee suffers from negative economic protection as a result of the tax, and over 90 percent of producers have very small holdings. Thus, both equity and efficiency goals would be served by reducing the tax, while seeking alternative, less distortive revenues, such as the land tax.

Another area in which fiscal reforms could be realized within the sector concerns the staffing policies in the Ministry

of Natural Resources. It has been found (Norton and Benito, 1987) that real salary levels have been declining in the ministry while staff size has been expanding. Also, operating funds for field visits and other purposes are critically short. Policy has implicitly favored using the ministry as a source of employment creation, sacrificing its technical integrity as an institution. It is evident that a reduction in staff size could be consistent with improving salaries and at the same time with realizing fiscal savings.

In this context, the strategy paper team is doubtful about the advisability and long-term viability of the higher salaries paid to part of the MNR staff via PL-480 local currencies. That program has not led to improved performance in the institution, it is not sustainable in the absence of PL-480, and it creates morale problems in MNR. The PL-480 funds would be more productive elsewhere. As regards MNR, a general salary increase, plus staff reduction, would be preferable, tied to a management advisory effort to improve institutional performance.

As noted, a specific fiscal measure that would contribute to raising more funds at the same time it improved agricultural incentives is the imposition of tariffs, including on PL-480 wheat. In recent years the decline in world wheat prices, combined with a constant nominal domestic price of wheat flour, has provided a considerable windfall gain to wheat millers. That gain could be budgetized, and by doing so the domestic currency generation from Title I wheat could be increased by roughly 50 percent.

From the viewpoint of the agricultural sector, fiscal priority needs to be given to labor-intensive expenditures in rural areas. That means rural public works, in part. Transportation access is a principal bottleneck to opening up more land in some parts of the country (especially the north and northeast), and roads can be constructed in labor intensive ways. By the same token the irrigation network could be expanded considerably, provided management of existing areas is improved, and in that regard, use of a shadow exchange rate might indicate greater profitability for some irrigation projects that have been in doubt.

In contrast to these kinds of expenditures, subsidies to IHMA and BANADESA are of doubtful effectiveness. Hence the fiscal challenge to agriculture is to reorganize the structure of fiscal expenditures in the sector so that they are more efficient in creating employment and incomes, while reducing the net cost of the sector to the national budget.

C. Conceptual Agricultural Growth Models

There are various sources of growth or configurations that demonstrate how the resource base of land, capital and human capacities, complemented by technology, relates to agricultural growth. A brief description of selected agricultural growth configurations appears below. There are two assumptions common to the configurations: a rational set of price policies and a commitment to growth. The configurations relevant to Honduras are the following:

1) A natural resources-based model of expanding land use, supplemented by irrigation, credit, and extension of traditional or elementary borrowed technology. The basic engine of growth is land and water development.

2) A science-based model that substitutes indigenous technology generation and transfer for expanding land and increasing irrigation. This model includes viable factor and product markets, along with a continuous stream of personnel trained for the adaption of science to agriculture. The basic engine of growth is science and productivity.

3) An export growth model with optional specializations. There are options for regional specialization for indigenous markets and/or specialization for external markets. In either the indigenous or external market there are options to produce exports or raw products or to add value by adding form, time and space utility to the raw products. The form value added involves processing; time value added involves storage and gains from changes in prices; and space value added relates to transport in assembly and distribution. This model may underlie either a natural resource, or, preferably, a science-based model. The basic engine of growth is regional or external exports based on specialization and comparative advantage.

4) An import substitution model, underlying either a natural resource, or preferably, a science-based strategy, and focused on specialization that leads to real domestic unit costs equal to or less than imported prices. As in the export model, the substitution can involve regional indigenous specialization or external markets. The engine of growth is competitive productivity resulting from efficient specialization that substitutes for selected imports.

5) A self-sufficiency model, with a natural resource, or preferably, a science-based strategy, and focused on

satisfying food demands of a population with increasing real incomes, usually in an economy with a rapidly growing urban population. The model usually includes some economically viable import substitution and regional specialization. The engine of growth is urbanization, and increasing employment and real incomes.

The limited availability of new lands to settle and the high cost of irrigation will increasingly limit the application of the natural resource model. A land conservation variant of the model, using low levels of purchased inputs and mechanical as well as biological technologies, will significantly increase the output and incomes of the 100-150,000 marginal smallholders. Such farmers are primary producers of basic grains for their own survival, but they do not contribute significantly to the basic food grain supply. However, even here this model eventually is limited by the availability of land for absorbing the expanding rural population.

The unique value of the science-based model rests on its potential for continued increases in output combined with reductions in unit costs through the application of technology in the form of purchased inputs. These yield-increasing inputs (improved varieties, fertilizers, agricultural chemicals and biologicals) are expensive and their use involves increased risk and specialized knowledge. Consequently, they are primarily applied on commercial farms. Commercial farmers also tend to specialize to meet the requirements of regional or external markets or to compete in import substitution and thereby receive higher returns.

The indigenous regional export model is based on differential specialization for comparative advantage within a country. Its potential depends on the rate of urbanization and increasing real incomes and on the application of productive technology to maintain that comparative advantage. The external export model for traditional commodities faces severe competition from other Central American and Caribbean countries, increasing use of synthetic substitutes, rapidly changing food habits, and the instability inherent in dependence on developed country trade policies. The outlook is dim for some of Honduras' traditional raw product exports (sugar, coffee, tobacco, meats, cotton and wood products).

The declining values of traditional commodities may--or may not--be offset by increases in non-traditional commodities. Non-traditional exports (presently about 12% of agricultural exports) are increasing at an estimated rate of 8-10% per year. However, this market gets more competitive each year, requiring improved efficiency of production, processing and transport. At

the same time, pressures in the U.S. for protectionist policies are increasing.

The prospects for the import substitution model are few, and limited to the volume imported. The most favorable opportunity is in milk production and processing. Some substitution of domestic corn for wheat imports could result from changes in relative corn and wheat prices. There is also a growing opportunity for replacing imports of feed corn and soybeans if productivity can be raised, costs lowered, and processing efficiency improved.

The self-sufficiency model is driven by urban/industrial growth, hence is not a promising stimulus for agricultural growth in the near term. However, once the Honduran economy begins to expand, the low nutritional levels and high income elasticities for food will make this an important source of agricultural growth.

In Honduras, as in many LDC economies, there is and must be a mixture of growth models. The most hopeful structure emphasizes (1) a modified, conservation-oriented natural resource model for marginal farmers and (2) a science-based, productivity-focused model for other clients. These other clients are commercial farmers who specialize for internal regional markets, export markets, and selected import substitution opportunities. The regional and external export markets must be complemented by productive efficiency and added value through efficient processing and transport.

D. Beneficiary Classes

Major beneficiaries of agricultural development are the non-agricultural urban consumers and industries and commerce that use agricultural products and sell producer and consumer goods to agriculturists. However, in this effort, our concern is with the beneficiary groups in the rural/agricultural sector. We define these beneficiaries in four broad categories:

- Landless rural workers, who are dependent on the success of other investors.

- Marginal small farmers of limited resources, who obtain less than three-fourths of their income from farming, and produce little surplus beyond family subsistence, yet dominate the sector by their numbers. They are suspended between independent farming and rural labor, i.e., with the passage of time, they (or their children) must acquire additional land or leave it.

- o The commercial farmer, large or small, who has the capacity and the will to respond to market forces and who contributes a significant surplus to domestic and traditional export markets.

- o The entrepreneurial farmer, large or small, who has the capacity and the will to anticipate market forces and who accepts the risk of entering non-traditional markets, both domestic and external.

This classification is based on the beneficiaries' degree of access to and utilization of opportunity, including the factors of production, and the capacity to accept risk. Neither land size nor income is as useful as a basis for classification, but the 0-3 hectare farm size class is a fair surrogate for the marginal small farmer.

These four groups differ widely in their capacity for and methods of participating in the design, implementation and benefits of different types of investment programs. They also vary in their capacity to respond to policies and market signals. And they vary considerably in the way that a given increment of income affects their welfare. The costs of reaching each class through various program interventions (delivery systems) is similarly varied. Programs intended to increase their respective welfares, and/or to obtain a desired output from them, must recognize these differences and be designed to address them.

For example, the "entrepreneurial" class would be more apt to respond effectively to high-value, high-risk programs intended to increase the output of non-traditional exports, while the "commercial" class would invest in lower-risk programs for increasing traditional exports or products for domestic consumption. They both would seek increased profits as the means to maximize their welfare, but the entrepreneur would do so through calculated risk, while the commercial farmer would tend to limit losses. The "small, marginal farmer" must remain primarily dependent on the basic grains needed to sustain his family, hence might be favorably affected by low-input productivity improvement programs or those that provide storage for postharvest loss reduction or better market opportunity. The "landless rural worker" benefits primarily from employment opportunities generated by the other three classes, by transformation or service industries, or public investment programs.

1. Landless Rural Laborers

About 45% of the agricultural labor force of 675,000 are wage laborers. Of these, only about one-sixth have permanent employment; the remainder find seasonal employment on others'

farms. Despite their numbers, the strategy we are proposing is not directed at them, since, as laborers, they are the passive beneficiaries of the success of others. Their fate is strongly related to the success of the farmers who are the focus of this effort, and to the extent that a strategy to improve farmers' income is fruitful, one could expect success to be reflected in the welfare of landless rural laborers as well.

2. Marginal Small Farmers

Marginal small farmers number about 150,000 families (based on projections from the 1974 Agricultural Census). The average farm family income ranges from L987 for the 0-2 hectare farm size class to L1432 for those with 2-3 hectares (table 3.3, Garcia, et al.). Off-farm income contributes 39% and 28% of this income, respectively. Their farms are heavily devoted to annual crops, primarily basic crops for their own subsistence; however, they are both sellers and buyers of these "subsistence" crops. They farm their small properties intensively both intercropping and double cropping, with little fallow, non-use or pasture.

The dilemma of the marginal small farmer lies in (1) his misuse of natural resources and (2) his inability to compete effectively with more affluent farmers. Honduras has let its abundant land area absorb the increase in numbers of small farmers of limited resources. These small farmers have taken over marginal hillside lands better suited for forests and have cleared and cultivated these areas for their own susbsistence without regard to the fragility of the resource. Without viable alternatives, they will remain there, and conservation of these steeplands must recognize their presence.

The poor quality of their land and their inability to acquire productive inputs or financing, even if they could take the risk of significant credit, prevent them from competing on equal terms with commercial farms. Programs that stimulate production of basic food crops through high levels of technology tend to worsen their conditions, since the increased volume produced by more affluent farmers reduces their benefits.

In abundance and dispersion, the marginal small farmer is the most critical aspect of the rural problem, yet his labor is Honduras' most abundant resource. The marginal small farmer has no near term alternative but to remain on his land: there is neither opportunity for employment in the city nor new land for settlement. Exploitation of the land resource, either through colonization or redistribution, can no longer absorb and

obscure this problem 1/. On the other hand, failure to improve his productivity by methods that are sustainable doom him eventually to join the ranks of the landless laborer or the urban poor.

Marginal small farmers are unable to accept significant risk. This prevents them from using technology that requires large amounts of purchased inputs. Similarly, it should prevent them from leveraging their farming operations through the use of credit. Marginal small farmers should be encouraged to adopt low-cost but productive conservation technologies that will permit them to achieve modest yield improvements and stay on the land. The near-term objective must be to enable them to remain where they are, without further damaging the land resource, while alternative opportunities are generated.

3. Commercial Farmers

The majority of farmers with more than five hectares, and some with less, can be considered commercial farmers, based on their production of a significant saleable surplus that yields more than three-fourths of the farm family income. There are probably 75-125,000 farmers in this group, with risk-taking and productive capacity, and income ranging upwards from levels just above that of the marginal farmer. Their farms continue to emphasize annual crops, but with increasing allocations to pastures, perennial crops, and fallow or non-use, under less intensive use. Many of these farmers produce coffee or other traditional export crops.

Commercial farmers responsive to market forces should be encouraged by policies and programs to adopt science-based, economically productive technology. Such technology requires significant use of purchased productive inputs and may require irrigation for full impact. This technology, while expensive, is rewarded by the larger output, resulting in lowered unit costs and greater profits. These lowered unit costs also enable the farmer to remain competitive during periods of low commodity prices, and help Honduras maintain its share in international markets. When the consistent productivity of these technologies has been adequately confirmed, their economic return usually

1/ It is alleged that considerable but undetermined acreage of land of good quality lies fallow on some of the larger properties, and that this land could be redistributed. While this may be true, it provides only stopgap relief, with little assurance that the land would become more productive in the long run. A more rational policy of land taxation would assure productive utilization of idle land by the owner or by a purchaser.

warrants use of credit, particularly when applied to irrigated land.

4. Entrepreneurial Farmers

The entrepreneurial farmer is the least common of the commercial farmers. He is the most apt to anticipate a shift in market demand and position himself to take advantage of it. This farmer accumulates land, speculates in commodities, and produces non-traditional crops for both the domestic and export markets, in addition to the more common commodities. He tends to take business risks, to use credit, to use highly productive technology, and to link his activities to foreign and domestic buyers and investors.

E. Principal Constraints

There are an almost innumerable set of constraints that limit the performance of the agricultural sector. We have identified seven of these that severely limit the program options for sectoral development:

(1) A stagnant and declining economy with little evident dynamism. The non-agricultural sector suffers from political uncertainties that have led to limited investment, capital flight, and excess capacity. When combined with the conservative, protectionist attitudes of private sector management, it is evident that without significant changes in the external environment, this non-agricultural economy cannot be expected to initiate significant economic growth, without which the downward spiral may be expected to continue.

(2) The restricted demand for agricultural output, induced domestically by low acquisitive power, and externally by low prices for traditional crops and the difficulty of entering non-traditional markets.

(3) The limited resources (personal, financial, capital) and restricted opportunities of the vast majority of rural families;

(4) The wide dispersion of population and production with weak economic and regional stratification, which causes high costs and limited development of infrastructure, of product and factor marketing, and delivery of services;

(5) The continuing deterioration, under current production regimes and incentives, of the natural resources that

support this population--and which must continue to support it for some time; and

(6) The limited financial and operational capacity of public sector institutions to confront and resolve the problems of the agricultural sector.

These constraints are interrelated. When combined with the high population growth rate and political uncertainties that triggered an abrupt deterioration in private investment and the succeeding recession, they are ingredients of a downward spiral of disastrous consequences. These constraints have been long in the formation, and reflect an implicit policy of exploiting the national land resource to absorb, rather than solve, the problems inherent in national development.

Since these constraints were so long in development, it stands that their resolution, as well, will require time and steadfast effort. Given their dimensions in Honduran society and their structural origin, there is no magic policy remedy that will cure the disease. Neither is there time nor effort to waste or disperse in misdirection.

1. Limited Demand

Externally, Honduras is heavily dependent on bananas and coffee, which together accounted in 1986 for L1,154 million of the L1,326 million from traditional exports. The traditional export product outlook is good for bananas, fair for tobacco, and poor for Honduran exports of coffee, oilseeds, beef, sugar and cotton. The non-traditional exports of pineapple, shrimp, melons, other fruits and vegetables, and spices accounted for only L190 million in 1986, with shrimp accounting for almost half of this figure. Although the non-traditionals are growing rapidly, the base is extremely limited, and is not expected (by USAID estimates) to provide more than L280 million by 1990, less than enough to replace the lower value of traditional exports.

Domestically, demand for basic grains and other internally consumed commodities is essentially in balance with supply, but this autarchy has been achieved at the expense of lowered nutrition because of reduced acquisitive power. Poultry meat is being substituted for pork and some beef, while imported powdered milk is being substituted for domestic milk. Wheat imports are gradually reducing the demand for corn for human consumption, but this trend is being offset somewhat by increased demand for feed corn.

External demand cannot be controlled by Honduras. Prudence requires a diversification of agricultural exports. Honduras' effort must focus on facilitating the establishment of private

linkages of Honduran producers to major buyers in importing countries. Such buyers not only provide access but can orient Hondurans to the precise requirements of the market and can provide assistance needed by Hondurans to meet those requirements. Once connected to the market (both new and traditional), Honduran efforts must focus on gaining and retaining market share and improving quality while reducing unit costs.

Internal demand is influenced by acquisitive power--growth in per capita income. The income effect on demand is proportionally higher among the poorer segments of the population, who spend more of the income increment on food than the more affluent. Equitable, long-term development thus provides the best sustainable stimulation for increasing the output of basic grains, which are produced primarily by small farmers, who are also major consumers. In the short run, employment programs targeted on the poor can have a major stimulative effect; however, the austerity program to achieve economic stabilization effectively precludes domestic demand creation, and has been accompanied by a worsening of the terms of trade for the agricultural sector.

2. Limited Resources of Marginal Farmers

It is possible to expand the land base for some, but not all, of these farms. It is possible to raise marginal small farm income significantly from a very low base, but such families will still be very poor in an absolute sense. Still, in the aggregate, a thirty percent expansion of their output, a comparable reduction in post-harvest loss, and/or a similar increase in farm-gate price received by a later sale could provide considerable impact on their consumption pattern and welfare.

Marginal farmers, as a class, are unable to accept the risks of high-input, highly productive agriculture. They usually lack the physical and managerial resources and the access to advice and inputs that are needed for successful application of highly productive, high-input technological packages. Therefore, they should not be encouraged to use such technologies, much less leverage their production with credit, since risk-adjusted returns to low-input technologies may not cover costs.

Instead, emphasis should be on the security of production as much as on its increase. Security can be achieved by following a low-cost input regime consisting primarily of soil conservation practices and crop management that maximizes soil and water retention. Such practices use the farmers' most abundant resource--labor--in preference to purchased inputs, and increase both the yield and security of yield. Good quality seed and

agricultural chemicals used in an integrated pest management program are good low-cost additions.

Such farmers consume much of their own production, but they also sell some for cash. Simple farm storage facilities (one-ton silos) enable farmers to reduce post-harvest losses on stored grain by as much as 30 percent. Alternatively, such storage enables farmers to hold grain without loss of quality in order to achieve a much better price later in the year. Both these benefits require the avoidance of debt collateralized by the crop, which normally must be liquidated at harvest.

The small size and dispersion of these farmers makes them difficult and expensive to reach with either public or private services, requiring organization for economies of scale and establishment of priorities as to which farmers to reach. Highest priorities should be attached to those farmers within the compass of a regional market town selected for further development, and to those who are already organized and receiving some services (agrarian reform cooperatives, other cooperatives, and groups organized by the public extension service or by PVOs).

3. Limited Economic and Spatial Structure

Honduras has two metropolitan cities: Tegucigalpa, with 700,000 inhabitants, and San Pedro Sula, with 400,000. The next largest regional market towns, or secondary cities, are La Ceiba, Choluteca, El Progreso, and Puerto Cortes (with 40-60,000 inhabitants), and Comayagua, Tela, Siguatepeque, Santa Rosa de Copan, Danli, Juticalpa and Olanchito, (with 13-30,000). The rural aldeas surrounding these market towns are largely undifferentiated settlements with rudimentary marketing services, limited public services, and virtually no industries beyond the household.

The concentration of private investment in Tegucigalpa and San Pedro Sula reflects the abundance of services available, as well as the size and affluence of the consumer market. The concentration of public sector investment in these two urban areas reflects both the need of burgeoning populations and the strong urban political constituency. They will continue to attract private capital and will need to develop public services, but both could be obtained locally through self-financing rather than from the national treasury. At the same time, these two cities are ill-served by a regional economic structure that fails to move good quality goods and services at attractive prices. Shifting public sector investment from these metropolitan centers, and concentrating it in selected regional market towns should benefit both the centers and the secondary cities.

Government investment programs could be consciously directed to reinforce a decentralized, economically stratified spatial structure, to improve market access, reduce the costs of infrastructure development and delivery of services, and encourage private investment in secondary cities. Such development also increases employment opportunities in these areas and in the surrounding countryside, and stimulates greater production in response to the created demand.

Current income enhancement programs are broad in scope but are focused in the two metropolitan centers or highly dispersed throughout the country. This dispersion limits the economic impact that could be increased through intersectoral linkages that expand income and employment multipliers. Geographically concentrated investments in health, education, infrastructure, technology transfer, irrigation, etc., stimulate the availability of inputs and consumer goods, increase labor productivity, reduce assembly costs, and, most significantly, stimulate private investment in agricultural and non-agricultural industries and services. This stimulative impact could be enhanced by an accompanying shift in the terms of trade from primary urban centers to selected secondary regional cities by requiring the urban centers to pay for the services they need through local taxes.

This regional market town development effort does NOT require detailed centralized planning or the integration of public sector investment, other than to identify priority regional secondary cities where investment incidence can be focused. The same sectoral agencies that are currently making these investments would continue to do so under the priorities established in this fashion, at levels consistent with the need to stimulate investment.

Some regional market towns (secondary cities), e.g., Comayagua, Choluteca, La Ceiba, Santa Rosa de Copan, Danli, and Juticalpa, are attractively located. They have already acquired a significant array of services, they provide a significant consumer market and have begun to attract outside investment. These cities are considered to be of highest priority for further development. Other cities, while reasonably well provided with public services, may lie within the compass of the primary cities, e.g., El Progreso. Other, smaller cities may be growing internally but have not yet attracted much external investment. These must be considered of lower priority.

4. Deteriorating Natural Resources

More than two-thirds of Honduras' land area is better suited for permanent forestry than any other use. This resource can be managed for sustained yield, but currently is

detericrating rapidly as a result of neglect, mismanagement, uncontrolled burning, and inappropriate uses (farming and unregulated pasturage). Most of the forest product is exported as rough bulk timber, with very little value added through processing.

These problems reflect an implicit policy of using natural resources as a means of expanding agricultural production at the same time these lands are used to absorb the increasing population. This policy is now approaching bankruptcy as the primary resource is destroyed. The damages inherent in this policy are exacerbated by policies that encourage occupants and forest industries to destroy the forest resource rather than optimize its sustained use. The extent of this destruction is already showing up in the declining exports of wood and wood products.

The misuse that has caused this rapid deterioration of pine and deciduous forests is the result of an incoherent incentive structure that prevents their users from exploiting them in a rational manner. For example, the current sales system, based on extracted logs, encourages "high-grading" by the logger, so that he leaves behind much useful wood. The forests provide no benefit to their other occupants, since sales proceeds go to the government and are shared only with those few who hold title to the land who can also bear the high transaction costs of collection. Thus, graziers burn the forests to improve the pasturage. Invading farmers practice destructive slash and burn techniques and cultural practices that leave the land bare and encourage erosion.

At the same time, the lack of domestic industrialization of wood products reduces the value added by the forestry sector, and limits the number of jobs that could be provided by the forest resource, so the importance of this resource is discounted by the popular perception. The problem is exacerbated by poor forest management, which has failed to make effective use of trained foresters. While this situation is improving, it will be some time before adequate professional coverage is provided and a responsible citizenry oriented to care for the forest. In the meantime, the resource is deteriorating very rapidly, as is its yield.

Other aspects of land use policy are similarly inconsistent, both with sustained use and optimum economic land use. Land owned by the state has been transferred to municipalities that grant usufruct rather than fee simple titles. Among other things, this titling anomaly prevents use of the land for collateral and participation in the benefits of timber sales. It prevents the legal sale of land which would enable a farmer to transfer his wealth to another area or another occupation. Land

units below 5 hectares can neither be titled nor sold. There is no effective land tax on rural land, which makes its non-use or unproductive use possible.

Although the basic agrarian reform law is relatively straightforward, the excesses of both the organized campesinos and the large landholders have created a great deal of uncertainty. They have constrained normal changes in use (one crop to another; livestock to agriculture; cropping to fallow) in response to economic conditions. They have also led to inoperative land markets, so that commercial banks no longer accept rural land as collateral.

5. Inadequate Government Services

The limited size of the Honduran economy and the small tax base have limited the budget funds available for development of all public service institutions. A restricted budget has been matched by the limited availability of professional agricultural managers and technical specialists. Yet the development problems of the agricultural sector and the resulting political pressures for their resolution are as varied and complex as those in much larger countries. This situation has led to intensive fragmentation of functions and programs, spreading available resources too thinly for success.

The functions of the public agricultural sector have been divided among a number of decentralized agencies responding to functional or commodity problems. With no central authority, conflicting mandates and varied clientele, these agencies have followed inconsistent policies and programs, resulting in conflicting mandates and unstable development progress. For example, the following functions are satisfied to some extent by the following public and private agencies:

	Public	Private
Education	CURLA, Catacamas	EAP
Research	SRN	FHIA
Extension	SRN	PVOs, Firms, Fondo Ganadero
Marketing	IHMA, BANASUPRO	FEPROEXAH
Credit	BANADESA	Commercial Banks, & Informal Lenders
Land Tenure	INA	
Supply	BANADESA	
Commodity Production and Marketing	COHBANA, IHCAFE, COHDEFOR	Farmers, Commerce

The proliferation of these agencies has been exaggerated by the existence of many non-governmental bodies whose functions

criss-cross the sector. While these NGOs provide critical supplementary development services, particularly to many clients whom the GOH is unable to serve, they must function in the same conflictive policy environment that leads to dissipation of their impact.

The GOH is now embarked on an effort to bring coherence to government operations. The cornerstone of this effort is the National Planning Law that (1) established the Secretary of Planning and (2) gives cabinet secretaries responsibility for coordinating the operations of the sectoral agencies. The latter is to be accomplished primarily through the development and submission of a single sector program budget. This change provides a singular opportunity to make the public agricultural sector a more useful force in sectoral development. However, the effort is still in its initial stages, and its accomplishments to date are somewhat rudimentary, so caution is advisable. Still, the basic precepts included in the National Development Plan for 1987-1990 are promising. Assistance in policy analysis now could be very useful in securing the policy coherence required by economic development efforts of all kinds.

SECTION III

OBJECTIVES

A. AID Goals and Objectives

AID goals and objectives were summarized in table I of the FY 1988 Action Plan for Honduras, appearing on the following page. They were derived from the Report of the National Bipartisan Commission on Central America (NBCCA), known as the Jackson Plan. These goals present conceptual problems in programming activities, since they tend to isolate the intended result from the various means of achievement. This is particularly true in the agricultural sector, where production and equity objectives are tightly linked. Furthermore, these objectives and goals may be in conflict with respect to each other and to their equity/productivity impact on different beneficiary groups.

As a consequence, any strategy must define the linkage between the activity and Jackson Plan goal(s)/objective(s) in terms of benefit incidence as well as output and purpose. For example, "increased production" is conceptually flawed economically if not linked to effective demand. A strategy for achieving economic stabilization may well be inimical to the economic growth that creates demand. Internally, demand is the result of growth in income and its distribution among population classes growing at unequal rates. Farmers respond to price. Increased basic grain prices will expand production, but the pass-through of such price increases to the consumer will reduce demand, unless accompanied by an equivalent expansion of distributed income.

Externally, effective demand is dependent on Honduras' price and quality competitiveness. Expanded agricultural exports will therefore benefit primarily the larger commercial farmers who are accustomed to producing for precise market demand. This situation may exacerbate equity problems unless balanced by an income policy designed to improve the productivity and participation of small farms and the wage participation of workers.

It is evident that program impacts depend very much on program design and implementation arrangements, and that they must be carefully linked through strategy to the objectives sought. Again, the presumed beneficiary incidence of each activity must also be assessed pro and con with respect to the various groups and objectives.

TABLE I

HONDURAS - SUMMARY FRAMEWORK

GOALS	OBJECTIVES
A. Economic Stabilization	Substantial improvement in macro-economic performance by 1990.
B. Laying the Basis for Long-term Growth	(1) Increase agricultural production by $400 million by 1990.
	(2) Generate $320 million in export earnings by 1990.
	(3) Generate 300,000 person-years of productive employment by 1990.
C. Equity and Broad Participation in Development	(1) Reduce the population growth rate to 2.7% by 1990.
	(2) Increase life expectancy to 65 years by 1990.
	(3) Increase the proportion of primary school students completing the sixth grade from 28% in 1984 to 45% in 1996, while reducing costs from $963 per graduate to $675 per graduate.
D. Strengthening Democratic Institutions	(1) Provide 1,582 Honduran citizens with educational opportunities in the United States' democratic environment by 1990.
	(2) Consolidate the legislative, judicial and electoral and other democratic processes affecting the rights of citizens by 1990.

B. National Plan Objectives

The National Development Plan 1987-1990 provides two sets of objectives, which probably reflect serial formulations. Two objectives are identical; the other two in the second set are methods for achieving economic growth. The first set appears in volume I (page 18):

- o Sustained economic growth
- o Internal and external financial equilibrium
- o Employment generation
- o Integrated regional development
- o Satisfaction of vital needs

The second appears in volume II (page 3):

- o Employment generation
- o Growth of productive capacity
- o Satisfaction of basic needs
- o Export growth

C. Relationship to the Current Agricultural Portfolio

The current agricultural program plays a part in meeting all USAID/Honduras goals:

- o Economic Stabilization
  - = Export Earnings (Agricultural Research Foundation, Export Development Services, Small Farmer Coffee Improvement, Forestry, Agribusiness Investor Support, Irrigation Development)
- o Laying the Basis for Long-Term Growth
  - = Agricultural Production (Agricultural Research Foundation, Small Farmer Livestock Improvement, Forestry, Land Use and Productivity Enhancement, Export Development Services, Agribusiness Investor Support, Natural Resource Management, Small Farmer Coffee Improvement, Rural Technologies, Irrigation Development, Small Farmer Organization Strengthening)
  - = Export Earnings (Agricultural Research Foundation, Export Development Services, Small Farmer Coffee Improvement, Forestry, Agribusiness Investor Support, Irrigation Development)

= Employment (Rural Industries, Small Farmer Coffee Improvement, Irrigation Development, Agribusiness Investor Support)

o Equity and Broad Participation in Development

= Land Tenure (Small Farmer Titling)

= Access to Opportunity (Small Farmer Titling, Rural Technologies, Small Farmer Organization, Small Farmer Coffee Improvement, Irrigation Development, Small Farmer Livestock Development, Natural Resources Management, Land Use and Agricultural Productivity Enhancement)

o Strengthening Democratic Institutions (Strengthening Farmers Organizations)

Existing and currently planned projects in the agricultural program are shown in parentheses. The repetition of many projects indicates the fact that the mission's goals are non-exclusive, while individual projects may have multiple impacts on the same or different objectives. In other words, logical programming requires allocation of project impact among several objectives and goals.

From a sectoral perspective there are also evident gaps in the program when compared with traditional agricultural development efforts, e.g., no public sector research, limited technology transfer, no agricultural education at the vocational or superior level, no marketing, no consumption (demand) stimulation, to name a few. These gaps reflect assignment of a lower priority by the mission, either for lack of feasibility or an absence of demand for the service.

The AID program objective targets, as programmed for agriculture, are the following:

(1) Increase agricultural production by $400 million by 1990

(2) Generate $320 million in export earnings by 1990

(3) Generate 300,000 person-years of productive employment by 1990.

The back-up data for the FY-88 Action Plan was updated (annex F) to determine whether these goals could be achieved, given our appreciation of the deterioration in economic growth. Our review indicated that the production targets will probably be met, largely because they are based on total estimated value of production, rather than value added. If the latter, more

appropriate criterion were used, it is evident that the agricultural production goals would not be achieved for lack of demand, since domestic acquisitive power is lacking. Neither could the export earnings target be met, because the value of traditional exports is expected to decline by more than the projected increase in non-traditional exports, and because the import requirements of non-traditional exports will reduce the expected earnings from this source. It is alo evident that the agricultural sector cannot generate 300,000 person-years of productive employment under these reduced expectations.

D. Program Selection Criteria

Considering that development of the Honduran agricultural sector is subject to a wide variety of constraints and initiatives by the government, private sector, and various donors, it is difficult to design a simple objective model for use by USAID/Honduras in selecting new projects. The mission must consider not only the potential impact of new projects on sector goals, but also Honduran institutional absorptive capacity to undertake these initiatives, and mission staff and resources needed to support project development and implementation. The following two-step selection criteria are an attempt to provide an objective decision model.

1. What new projects will contribute most effectively to achievement of sector goals? Are there sub-goals that the mission believes should be addressed simultaneously?

The agricultural sector contributes to all four goals and specifically to three objectives included in the FY88 USAID/Honduras Action Plan, i.e. increasing agricultural production by $400 million, generating $320 million in export earnings, and 300,000 person-years of productive employment, all by 1990. The Action Plan does not establish a hierarchy among these goals and objectives, and subsumes concern for efficient natural resource management under the agricultural production objective. Further, although the Action Plan objectives target specific accomplishments by 1990, the mission is obviously anticipating investment in projects that will produce results beyond that date. It is assumed that the same trimodal focus will continue after 1990. As stated above, the quantitative targets set in the Action Plan are considered to be inappropriately denominated, hence very optimistic given the current Government of Honduras austerity program. However, the three objectives remain valid even though the quantitative targets need to be reevaluated.

In order to determine the contribution of new project initiatives to the achievement of mission objectives, an initial estimate should be made of:

- o impact on stabilization, i.e., can the new project initiative be carried out without destabilizing the GOH macro-economic program?

- o impact on production, i.e., anticipated direct and indirect contribution to aggregate sector production, economic growth, and return on investment of new resources

- o impact on export earnings, i.e., anticipated impact on foreign exchange earnings

- o impact on employment, i.e., the number of people affected, and welfare impact on those affected

- o timeliness of impact, i.e., the mission objectives are stated in time-specific terms, implying greater priority for projects that achieve impacts sooner rather than later

- o probability of success, i.e., the anticipated impact should be discounted by low chance of success caused by institutional weaknesses, difficult policy negotiation, market variability, unproved technologies, and unreliable financial resources to meet counterpart/recurrent costs.

Obviously it is impossible to quantify closely the anticipated impact of a new project when it is at the conceptual stage. Assumptions concerning probable impact must be clearly stated and conflicting best estimates must be subject to discussion and decision. This is particularly important considering the trimodal nature of mission objectives for the agricultural sector, in the absence of a clear mission decision concerning the relative priority of each. Once this process has been completed, however, the mission should be able to rank new project proposals objectively.

2. <u>Can the mission develop and implement the new project(s) given other design and implementation responsibilities?</u>

Once the various new project proposals are reviewed against the above criteria, the mission must decide how many of these projects it should undertake given anticipated staff and work load. Some projects may be easier to design and implement than others. The mission may have technical staff particularly well suited to support one project over another. One new project may receive greater priority at this time because an opportunity

exists to capitalize on a GOH decision, or prior project implementation experience, which may not exist at a later date.

These considerations will affect decisions concerning the number of projects to be undertaken and the sequencing of design efforts.

SECTION IV

STRATEGY

In the 1970s and early 1980s, agriculture was a leading growth sector, but in recent years its growth rate has fallen. Between 1978 and 1983, agricultural growth exceeded general GDP growth in four of five years; from 1983 through 1986, agricultural growth was equal to or lower than that of GDP in all three years. Now production is expanding at only half the rate of food need, food imports are rising rapidly, and the agricultural trade balance is deteriorating. A more sombre aspect of the picture is that average nutritional levels appear to have declined in the decade up to 1984 (Garcia, et al., 1987) and certainly have declined since then. In all respects, agriculture is the main barometer of economic success or failure in Honduras.

As discussed earlier in this report, current macro-economic policies are inimical to improved growth prospects for agriculture. While some refinements in those policies are proposed, and sector policy reforms are suggested, agriculture is so dependent on the macro-economic environment that under the current austerity program, the prospects are dim for a significant improvement in agricultural performance. The irony of this situation is that the existence of substantial excess industrial capacity implies that the restrictive monetary policy could be relaxed somewhat without undue fear of inflation. Increased demand throughout the economy would help significantly to stimulate agriculture, and that in turn would have strong multiplier effects elsewhere in the economy.

Low GDP and agricultural growth rates below rates of population growth, with resultant declines in real income and increasing rates of unemployment, offer a poor economic model for a politically involved country. However, the need for economic stabilization limits the amount of sustainable growth that can be achieved. The principal issue in recommending an agricultural sector strategy lies in determining the tradeoffs that may be possible between these two objectives. The strategy we propose poses this issue, but cannot resolve it. That determination must result from dialogue within the mission.

This document attempts to put together a strong package of policies and programs, some of which are already underway, to stimulate agriculture. But the limitations imposed by the present mix of monetary, fiscal, exchange rate and trade policies has to be recognized as a major constraint on sector growth prospects.

The following program strategy emphasizes social and economic actions to stimulate both demand and productivity in order to achieve the goals of the Jackson Plan. It seeks to concentrate public and private sector resources and services on prioritized regional market towns (secondary cities) in order to derive the economic and social benefits of agglomeration (sector linkages and income and employment multipliers), and to achieve effective resource allocation as the basis for long-term economic growth. It seeks to reverse the deterioration of natural resources caused by the inappropriate use of land to absorb rather than resolve the problems of rural population growth. Furthermore, it uses the abundant labor of the marginal rural farmer to improve his economic condition while alternative opportunities are made available to him.

This is essentially a short-term strategy, focused on the immediate need to reverse the deterioration of the economy and the environment, to provide more equitable access to opportunity for the marginal rural farmer, and to lay a solid basis for further economic growth. However, one should keep in mind the longer term requirement for effective institutions staffed by adequately trained professionals, and one should implement this strategy in ways that support their development.

A. A Strategic Concept

An agricultural sector strategy to correct the constraints identified in section II requires acceptance of several propositions:

(1) The agricultural sector so dominates Honduran economy and society that a logical agricultural sector strategy becomes a multisectoral strategy.

(2) The marginal small farmer, in his abundance and dispersion, is at once the most critical aspect of the problem, whereas his labor is Honduras' most abundant resource. The marginal small farmer has no near-term alternative but to remain on his land, as there is no opportunity for employment in the city, nor in a declining agricultural environment, nor on new lands for settlement. Exploitation of the land resource can no longer be used, either through colonization or redistribution, as an acceptable means of absorbing and obscuring this problem.

(3) Commercial and entrepreneurial farmers responsive to market forces should be encouraged by policies and programs to adopt of science-based, economically productive technology. Marginal small farmers should be encouraged to adopt low-cost but productive

conservation technologies that will permit them to achieve modest improvements in output and stay on the land, rather than joining landless rural workers or the urban poor.

(4) Most investment programs should be directed at developing a coherent, decentralized economic differentiation and spatial structure that will attract private investment, encourage agricultural specialization, improve market operations, and concentrate government services.

(5) On-farm and most marketing investments, in both capital and labor, specifically including forest and land conservation, must be made in response to market incentives by the private sector from its own savings. The government's responsibility is to assure that the incentives exist and operate to achieve the desired results. Public sector investment must be limited to essential areas where private investment cannot capture a direct return, e.g., research, education, roads, and health.

If these precepts are accepted, then one may use them as guides to attack identified constraints. The strategic focus of the USAID/Honduras agricultural development program must be a function of sector constraints, sector opportunities, and mission resources. It is also intrinsically related to the macro-economic environment and activities in other sectors. At this time, the status of the macro-economic environment severely limits development options for the sector, although hopefully this situation will change during the period covered by this strategy.

B. Policy and Program Proposals

1. Policies to Offset Declining Prices and Restrictive Demand

a) Trade and Exchange Rate Policies for Agriculture

As indicated earlier, agricultural prices have declined sharply in the 1980s, relative to other prices in the economy. In fact, the 30 percent decline mentioned is probably an understatement of the true decline, in that other investigations (Garcia, et al 1987) have shown that there has been a further significant decline in farm-gate prices relative to food prices at the consumer level. However measured, it is clear that farmers' profit margins and purchasing power have been eroded substantially in this decade. This trend has aggravated an already unsatisfactory nutritional situation.

Part of the relative price decline simply is a consequence of the downward trend in agricultural prices in world markets, but is also due in part to domestic policies and is therefore is correctable. The two policies that have affected relative prices are the exchange rate and protection (trade) policies. An overvalued exchange rate, it is now widely recognized, tends to depress agricultural prices relative to other prices in the economy, as agriculture is especially sensitive to price pressures emanating from international trade. Honduran trade policies have increasingly developed both tariffs and quantitative restrictions in the industrial sector, so that now the effective implicit protection to Honduran industry is estimated at 99 percent (Berlinski, 1987). At the same time, agricultural protection, with the exception of sugar, and to a much lesser extent, rice, has been nonexistent or negative. This development has been a major factor in depressing agricultural prices relative to those in the industrial and service sectors.

One remedy would be devaluation to an equilibrium level in the exchange rate. In the absence of devaluation, however, other initiatives are needed. There exists a black market for foreign exchange, and also legal provisions that allow certain classes of exporters to use their foreign exchange earnings for imports (the autofinancimiento system), but as explained in annex E, that system is limited and is not applicable to agricultural imports. Hence, other approaches are needed. The simplest measure to implement would be to raise the price of imported wheat, including PL-480 wheat, as it is sold to millers. This could be undertaken as an administrative measure. It would not require a change in the price of wheat flour, as millers have reaped large windfall gains from the decline in world wheat prices in recent years, while the domestic flour price remained constant in real terms.

An appropriate increase in wheat price would be at least 20 percent, to compensate for the exchange rate overvaluation. It could be more (in the range of 25-30 percent) if industrial protection levels are taken into account, in light of the ESF policy objective of making protection rates uniform across sectors. This measure would indirectly afford some economic protection to other products in the sector, notably corn.

At the same time it would be important to establish tariffs in an equivalent amount on other agricultural imports, also tied to the rate of overvaluation of the lempira. This linkage should be explicit and direct or indirect tariffs should be immediately removed if a free exchange rate policy is adopted. Given the importance of agricultural exports to Honduras, the GOH should be encouraged to maintain a non-protectionist policy environment. This would help discourage protectionist tendencies in other

countries, including the U.S., that wish to reverse CBI provisions. In this regard also, the sugar sector policies need to be reviewed with an eye to reducing subsidies in that sector.

In order to avoid creating a bias toward import substitution and against exports, additional trade policy measures are needed on the export side. The first step would be to reduce the export tax on coffee, which pays the highest export tax rate among agricultural products. (Elsewhere in this document compensatory measures to raise fiscal revenues are discussed.) The coffee tax is about 12 percent but usually it is higher. In economic terms, it has the net effect of creating a negative protection rate for coffee producers. In addition, it is highly inequitable, as it falls on very small-scale producers; over ninety percent of the coffee growers have two hectares or less, and many live in areas with very poorly developed infrastructure. The coffee tax might be halved as a first step, with an eventual goal of eliminating it except in cases in which coffee prices rise to more than $300 per hundred weight.

For agricultural exports in general, the autofinancimiento system would be workable, unlike the case of imports, but its political acceptability is somewhat questionable. In technical terms, the proposal would be to allow all agricultural exporters the right to "retain" their foreign exchange earnings, or a significant part of them. However, as agricultural exports represent three-fourths of total exports, this scheme would come very close to an open devaluation. It would make the black market into the country's main foreign exchange market. In economic terms, that outcome would have desirable effects on relative prices, but Honduran authorities almost certainly would prefer an explicit devaluation, or even the establishment of an official parallel exchange rate. In conclusion, the strategy team recommends careful review and discussion of these issues, for it is urgent to correct the existing pricing distortions against agriculture.

b) Credit Policies in Agriculture

The degree to which credit availability has been a significant constraint to agricultural sector growth has been one of the principal controversies within USAID/Honduras. The mission has commissioned a thorough review of the credit issue, with a special focus on agricultural credit, which will commence shortly. The following comments on this issue are offered to assist the mission and the review team in its analysis.

There are many indicators that credit use in Honduras is well below levels found in other Central American countries, and there is evidence that credit use declined at least during the early 1980s. Agriculture is particularly sensitive to credit

usage, since most new technologies require capital input, there is substantial time lag between input investment and product sale, and agricultural producers tend to have lower average incomes and thus fewer assets.

There are a number of possible explanations for the low utilization of credit in Honduran agriculture. The agrarian reform law has created a lack of asset security for owners of larger land units producing anything except traditional export crops. This reduces both the owner's wilingness to invest in capital assets and the banker's willingness to lend. Most small producers, including agrarian reform beneficiaries, lack valid title to land or other assets acceptable to the banking system. The banking system itself, in the opinion of some observers, is oriented excessively towards financing urban commerce, light manufacturing, and housing, and lacks competence to appreciate and take advantage of opportunities in rural lending. The government agricultural development bank (BANADESA) has incurred substantial losses, in many cases due to political interference in either loan approval or collection. While this institution may represent a viable alternative to donors for targeted, supervised credit programs, it has not shown sufficient institutional viability to serve as a stable source of credit for Honduran farmers.

In addition to institutional and sector policy constraints, certain macro-economic policies may also reduce credit utilization. The banking system is presently required to maintain large reserves (32 percent) in the Central Bank, which reduces potential bank liquidity and raises the average cost of capital to banks. In addition, banks are able to invest funds in government bonds at 12 percent interest, which represents a secure source of income without significant transaction costs. Finally, there are a number of special limitations placed on bank flexibility, such as interest rate ceilings for certain agricultural lending, below the rate for other activities. While the Central Bank also offers special rediscount lines to compensate for these lower rates, banks are unable to increase margins to cover the costs of reaching smaller farmers, or to compensate for perceived agricultural risk. The real commercial interest rate in Honduras is extremely positive (around 15 percent), and producers have indicated an unwillingness to borrow at these rates, particularly for medium to long-term investments.

Whatever the cause of the "credit dilemma," Honduras is maintaining a stagnant agricultural sector utilizing low levels of capital inputs while at the same time its banking system has substantial liquidity invested in government bonds. Resolution of this problem is likely to require a series of measures, including modification of sector-specific policies such as those related to agrarian reform, institutional innovation in the

banking sector, and modification of Central Bank policies and procedures. We will not attempt to prejudge which of these modifications is the most appropriate at this time, since a special team will shortly commence an in-depth analysis of the problem and will be more capable of making this determination. We wish to emphasize, however, that without a significant increase in credit utilization there is no chance of accelerated growth in the agricultural sector.

c) Fiscal Policies in Agriculture

In the present economic environment, the main objectives of agricultural fiscal policy are: i) to realize as much fiscal savings as possible, via increased revenues and also via reduction of unproductive forms of outlays, and ii) to ensure that fiscal interventions do not create economic inefficiencies in the structure of prices and incentives.

The proposed land tax has both fiscal savings and efficiency implications. Over the long run, significant amounts of new revenue can be realized from its application. This tax should also contribute importantly to improving average productivity levels in the sector by encouraging more intensive use of existing land in medium-scale and larger holdings. The tax should induce owners of those holdings either to cultivate their land more intensively, or to sell some of it to farmers who will cultivate it on a smaller scale and more intensively. Studies in Honduras have shown that the medium-scale and larger-scale farms produce much less output and income per hectare than the smaller farms do. Thus the land tax is conceived of as an instrument to induce market forces to increase the productivity of Honduran agricultural land. The land tax also avoids some of the distortive effects of taxes on individual commodities, which tend to bias resource allocation over commodities.

It is recognized that implementation of the land tax will require achievement of some of the goals in the land titling program. It will take time to implement, but eventually it will be a powerful fiscal instrument for improving the productivity of the sector. This instrument is discussed more fully elsewhere in this document. A second temporary source of additional revenues would be the proposed increase in the price of wheat to millers, and the proposed tariffs on imports of agricultural products until a free exchange rate is created. On the cost reduction side, privatization efforts presently underway should reduce the fiscal losses associated with IHMA, BANASUPRO, seed production, and PROMECA.

Another measure on the institutional side would be to discontinue the program of paying higher salaries to some of the MNR staff via PL-480 local currencies. That program is not self-

sustaining in the long run, and to date the evidence is that it has not improved the efficiency of MNR as an institution. There are a few exceptions, such as the high-level policy analysis team advising the Minister of Natural Resources, which serves an effective role presently, even though this role is not being institutionalized. Generally, PL-480 funds would be more productive if allocated to investment projects in rural areas around market towns where, among other things, the multiplier effect on food consumption expenditures would be greater.

The sugar subsidy should be eliminated, or at least reduced, on grounds of economic efficiency and fairness to consumers, but it should be noted that it presently does not entail any fiscal losses. Consumers bear the full burden of that subsidy.

In at least one case, a present instrument for raising fiscal revenues--the coffee tax mentioned above--has very distortive allocative effects and its incidence also is quite inequitable. The vast majority of coffee producers have very small holdings and are quite poor. It should be reduced in the near term and eventually eliminated, except in instances of very high world market prices of coffee. This tax creates negative economic protection for coffee producers, while industrial producers are benefitting from protection of +99 percent. In keeping with the policy of making protection more nearly uniform over products and sectors, this tax burden needs to be decreased. The resultant fiscal losses can be made up from the other measures mentioned in this section.

Finally, it is important to note that in the present economic environment, agriculture could benefit from a demand side stimulus, so as the appropriate opportunities occur, fiscal resources should be reoriented from metropolitan areas toward rural public works programs. The direct beneficiaries of those kinds of programs have a very high propensity to spend additional income on food consumption. Also, they presently live at near subsistence levels, and the incidence of malnutrition is fairly high. Thus, on several grounds, the benefits of rural public works would be considerable.

d) Modification of Agrarian Reform Procedures

Effective demand is limited by the reduced private investment in rural infrastructure resulting from procedures used to implement the Honduran agrarian reform legislation. Although this legislation probably contributed to the social cohesion that has thus far prevented the violent disorder experienced by neighboring countries, it has also led to an environment of uncertainty and perceived risk among rural residents. The following aspects of the reform process are particularly disruptive:

- o inability to provide valid land titles for land holdings under five hectares, and the policy of not providing valid, mortgaged land titles to land recipients;

- o delays in processing land claims and issuance of "non-affectability" certificates; and

- o arbitrary confiscation of all land that does not serve a "social function." Administrative inability to implement this and other of the law's provisions contributes to uncertainty while achieving few of the equity concerns intended.

As in other Latin American countries, land distribution is one of the most difficult political issues and is particularly sensitive as a subject for policy dialogue by donor organizations. However, the uncertainty of private land ownership is undoubtedly a major constraint to growth of investment in rural Honduras and a contributing factor to the lack of agricultural credit. The mission needs to support a wide range of indigenous efforts to promote adoption of politically acceptable but more economically efficient policies. Ideally, as described elsewhere in this document, the GOH should be encouraged to replace present land reform policies gradually with a comprehensive land tax and other measures to promote private exchange of land ownership.

2. The Spatial Element: Regional Market Town Development

Because of its dependency on natural resources, agricultural production takes place in a dispersed environment. The development of a system of effective product and factor markets, which efficiently transmits prices and goods, requires both infrastructure and a stratified economic structure. Regional market towns are central places that serve the dispersed production area and collect its output. As public and private infrastructure builds up in and around such market towns, their attractiveness for investment expands. Individual businesses serve each other as well as the surrounding area, and provide both a service and a consumer base for other industries. The agglomerative effects of such growth (through linkage and multiplier effects) expand the impact of investment on employment, income, and output more than the sum of the individual parts.

We propose that the mission take advantage of this synergism by shifting its current investment levels from the metropolitan centers and concentrating them in a limited number of secondary cities that we call regional market towns.

The consistent elements of a market town concentration include agricultural specialization leading to indigenous and external trade; enhancement of human productivity through concentrated local investment in health and education; establishment of appropriate infrastructure (energy, rural roads) in the market town and surrounding area; and technical assistance to small farmers in the market town's area of influence to increase their productivity. These efforts make these towns more attractive to agricultural processing industries, as well as local service firms, and expand opportunities for off-farm employment. Both product and factor markets become more competitive as the consumer base grows and increased demand encourages greater agricultural production. Other consequences include an expanded local tax base, which provides a realistic opportunity to establish a local tax system and develop the local capacity for selecting, financing and implementing municipal and provincial investment programs.

Besides direct investment, there are a number of policy interventions that might also influence market town development. These could include a land tax, a capacity for market towns to tax an expanding resource base, tax credits for private sector capital formation (irrigation, reforestation, private service, etc.), policy changes that would enhance the agricultural credit flow, and tariffs on selected imported foods (wheat, milk, etc.).

For optimum agglomerative impact, this shift in AID investment should be reinforced by a similar shift in GOH and other donor investment. We cannot expect such shifts to be either total or immediate, but steady pressure maintained at the margin should influence such resource concentration.

AID and other donors have a multi-sectoral investment portfolio that includes employment generation, private housing, primary education, rural roads, rural water and sanitation, family planning, small business development, health, management training, etc. Other donors also have ongoing programs in integrated rural development and more specific employment generation activities.

The total figure for ongoing, multi-sector donor programs that could be concentrated on market town development is estimated at $100 to 125 million, including about $25-30 million from AID and some $75-95 million from other donors (equivalent to half of the $190 million allotted to spatial economic structure projects). Assuming a conservative disbursement rate of 15 percent, this would suggest a $15 to 18 million annual investment rate from existing projects. Furthermore, some of the AID agricultural sector portfolio of about $125 million along with other donor agricultural sector investments of about $70 million might also be concentrated in or around such market towns. Thus,

the current portfolio provides a substantial opportunity to capture employment and income multipliers.

This effort is not a project per se, but a reorientation of investments the mission is making in health, agriculture, education, employment generation, rural roads, etc. We propose that a half dozen regional market towns in the 15-30,000 population range be selected on the basis of current growth and infrastructure characteristics.

The effort does not require detailed regional planning, but there are still many issues the mission must consider. These include how concentration will affect both broad AID goals and sector goals of production, employment and exports; the timeliness of the impact exerted through income and employment multipliers; the requirements for designing and implementing investment reorganization; the capacity and problems of donor coordination, etc. The mission must also consider the political effects of concentration, which implies leaving someone out.

Therefore, an initial study should be made to identify priority locations, establish baseline information, identify critical deficiencies, and suggest the sequencing of public and private investment. The study should consider available physical, human and private capital resources. It should also evaluate evident comparative advantages that indicate possibilities for regional production specialization and help to attract investment by commercial farms. The physical resource considerations include soils, climate, road and input market infrastructure, educational and health capacities, presence of rural electrification, etc. The human resource evaluation should consider the local labor force, the extent of managerial leadership, availability of technical and managerial training facilities, the presence of above average rural per capita incomes, etc. Finally, the private sector capital resource base relates to the presence of modest input and product markets, possibilities for growth in the service sub-sector, interest and commitment of private investors, availability of modest financial markets, a base for non-agricultural industrial growth, etc.

The study team should try to establish comparative data about economic rates of return that include multiplier estimates of the locations and their links with other cities affected by the priority locations. The estimates of employment and income multipliers should focus on market town impacts on the demand for farm and non-farm labor, machinery, chemicals and credit. In addition there will be employment and income impacts on other locations serving the expansion in the market towns, e.g., input suppliers, product processing firms, transport, and central financial institutions.

The market town development concept is consistent with most of the broad AID goals, e.g., creating a basis for future growth, favorably impacting the distribution of the benefits of growth, and strengthening democratic processes through decentralization of decision making. It is not at variance with the goal of economic stabilization, but a tight monetary policy may reduce the favorable impacts of market town development by delaying private sector investment in market towns until credit becomes more readily available. In the initial stages, public sector investments in infrastructure are merely concentrated in market towns. No increase in such investment is suggested until the agglomerative impact makes them essential to maintain progress.

3. Enhancing the Sector's Resource Base

Renewable natural resources have an optimum sustainable use capability. Some flat, well-drained lands can be used for agriculture with minimum concern except for renewal of their fertility. The value of agricultural production from such land clearly outweighs the value of forest products obtainable from natural vegetation, and thus the land is cleared for agriculture. With steeper terrain, or soils that are more shallow or erodible, agricultural practices must include increasing attention to retaining the soil base. The trade-off becomes less favorable for agriculture, and more favorable for natural vegetation, e.g., forests.

This trade-off becomes even less favorable when a sustainable resource, e.g., land, is used in ways that lead to deterioration and hence destroy its future utility. For example, steep forest land with shallow soil, when cleared and used for agriculture, can erode rapidly in the absence of heroic conservation measures. Such conservation measures are not economically viable for low-income farmers who cannot afford to forego present consumption in expectation of future benefits. As the topsoil disappears, the remaining soil ceases to provide a suitable base for agriculture, and is eventually abandoned to recover as best it can. In many cases, recovery is impossible and the soil erodes to bare rock, unusable even for subclimax forests. At the same time, the eroded soil has moved down the mountain for deposit in the beds of watercourses or reservoirs, destroying their utility. The water yield of the watershed, which was formerly held by vegetation and soil to percolate slowly through the earth for regular release throughout the year from springs or wells, is released immediately following each rain. This leads to alternating floods and drought for the farms, industries, and cities dependent on this resource.

The classification of two-thirds of Honduras' land area as primarily suited to <u>permanent</u> forest reflects this condition.

Unfortunately the indiscriminate clearing of forested land for lumbering, cultivation or grazing has led to severe deterioration or loss of much of the natural resource. The steeplands are now occupied, and most of their occupants have no alternative survival options. The restoration of the land and watershed resource and its eventual return to forest must occur while most of the occupants remain in place until other options become available to them.

The problem then becomes one of finding ways to overcome the resource constraint to agricultural development. This constraint is composed in part by the lack of other land to settle, in part by the occupation and misuse of land, in part by the deterioration that has already occurred, and in part by the non-use or unproductive use of land that is suitable for sustained agriculture. These problems have their root in improper policies and practices that have resulted in disincentives to maintain the resource. Overcoming the resource constraint requires finding ways to deal with these problems. The following are recommended.

a) Controlling New Settlement

An obviously desirable option is a change in the implicit policy of permitting spontaneous colonization, without regard to the capability of the land for sustained use, yet it is difficult to implement unless the excess rural farming population has viable options. In the absence of alternatives, the survival option is to move onto steep slopes and clear the forest, using the cleared land for agriculture, without conservation measures. Given the evident unsuitability of this kind of settlement policy, we prefer to limit the use of unsettled land as a reserve for future development under more rational policies of controlled use, whether for agriculture, forestry or grazing.

b) Hillside Production Technologies

The Natural Resource Management and Rural Technologies projects have demonstrated that watersheds can be rehabilitated and that incomes of marginal hillside farmers can be improved through adoption of low-cost conservation technologies. The expansion of this activity is the most urgent requirement, not only for effective resource management but because these marginal small farmers are among the poorest of the beneficiary classes.

One should recognize that this is not a long-term response to either the income needs of the farmer or the maintenance of the resource. The land that they occupy is of low productivity and is fundamentally unsuitable for permanent agriculture. Therefore, one must look at alternative options that can be pursued over the longer term. Some of these will be provided

through off-farm employment, but others can come from more rational land use practices:

- o Current law prevents the titling or sale of land units below 5 hectares in size. It discourages the consolidation of micro parcels and the alternative uses that larger size would permit. It also prevents the smallholder from capitalizing his "sweat equity" in order to take advantage of alternative options such as purchase of more suitable land or establishment of a small business.

- o A land tax will tend to require more productive utilization of agricultural land or its sale. If sold, this measure would increase the availability of agricultural land for the former hillside farmer.

c) Improved Forest Management

Unauthorized colonization is not the only cause of deterioration. Loggers routinely "high grade" (selectively log) their concessions, leaving behind a significant part of the forest product, which is then commonly burned by invading colonists or graziers. The main reason for this is the practice of selling by extracted log, rather than on the basis of a cruised estimate of extractable timber.

Graziers commonly burn the forest to enhance the pasturage. Invading colonists fell and burn remaining trees. Neither the grazier nor the colonist has an incentive to preserve the trees, since neither perceives any direct benefit. Trees are state property. When they are sold, the state receives the benefit, except for a small share paid to the land owner. Unfortunately, one must have title to the land from which the tree comes in order to receive this benefit, and few occupants have such title nor can they get it if their property is smaller than 5 hectares. Even if they have title, the procedures for collection are too onerous for the small amount received.

In the past, forest control has not taken advantage of trained foresters. Hence the forests themselves have not been managed in the sense of selecting areas for preservation, development and harvest. Neither has the invasion of forests nor their misuse come under any control. General orientation of the public to the value of maintaining the forest resource has been limited to ineffective publicity.

The new Forest Management project, which has been authorized but not initiated, addresses the land sale issue and the management issue. We consider this to be a major step in gaining control of the forestry problem. The project does not

effectively address the farmer/grazier incentive issue, however, which will probably require changes in the titling and forestry laws.

d) Irrigation Development

Irrigation reduces climatic risk, permits production of higher value products, and makes other technologies (e.g., high yielding varieties, fertilizers) more productive. It expands the value of the land resource enormously, because it permits greater production per unit area, and thus reduces the minimum economic parcel size. We do not advocate micro-parcelization of irrigation, because there are other economies of scale involved; however, micro-irrigation of small plots is a feasible and highly desirable technology in the Natural Resource Management/Rural Technologies hillside farming array.

Irrigation is particularly important as a method for increasing the productive utilization of flat valley lands. A recently authorized project (Small Irrigation Systems) is in the initial stages of implementation. We believe it to be an innovative approach to expanding private investment in irrigation, appropriately differentiating the respective roles of government and the private sector. Honduran water laws deal primarily with municipal and mining uses, with little reference to irrigation. A major element of this project is a review and recommended revision of Honduran water laws.

e) Technology Generation and Transfer

The ultimate release of the resource constraint requires an increase in productivity levels through application of continuously improved technology on sites suitable for sustained use. A sustained effort in this regard requires an increasing awareness of the role that science plays in agricultural development and a commitment to creating and maintaining an institutional capacity to fulfill it. Honduras must improve its capacity to borrow and adapt the products of agricultural science, particularly with regard to basic grains and pasture/forage production.

f) Suggested Resource Programming Arrangements

(1) Current Programs.

The USAID program includes the following activities that address this area:

Project	Ends	Amount
Natural Resource Management	9/88	16.2
Rural Technologies	9/88	9.0
Land Titling	8/89	12.5
Irrigation Development	9/93	22.5
Forest Management	?/94	(pending)

In 1985, other donor programs directed towards limited resource marginal farmers amounted to something over $140 million, mostly for integrated rural development. Other donors also provided $19 million for natural resources management activities.

(2) Proposed Activities

- o LUPE. Two current AID projects are ending in 1988. It is proposed that the experience of these two projects be incorporated in a Land Use Technology Enhancement (LUPE) project directed at small hillside farmers. This project will operate primarily as an MNR agricultural extension activity, but may require limited agricultural research on corn, beans and sorghum to supplement the technology. Attention must be given to the institutional viability of implementing institutions.

- o Land Market Policy and Practice. We propose a comprehensive project directed at developing a coherent land policy, improving the practices and incentives related to natural resources, and developing an open, effective and agile land market. INA's mission should be more clearly defined. This project would expand the Land Titling project, but it should also look at policies, laws and practices related to land ownership, forestry, resource conservation, water, and banking with a view to making the land transfer process provide better incentives to effective resource use as well as the use of land as collateral.

- o We believe that the Irrigation and Forest Management projects are focused on critical areas for relieving the natural resource constraint. We anticipate the eventual need to roll over/redesign these activities, based on implementation experience with these projects, as these themes require a long-term development commitment.

4. Improved Capabilities for Policy Analysis and Monitoring

Throughout this paper we refer to the need to improve capabilities in sector planning and policy analysis.

USAID/Honduras invested substantial resources in such efforts in the 1970s and early 1980s, but these efforts were frustrated by the lack of continuity in planning institutions, the tendency of government planners to seek statist solutions to problems, and the disarticulation of planning efforts from actual decision-making processes. During this period the Ministry of Finance became the dominant force in government-wide planning, and the Economic Cabinet (where the Minister of Natural Resources has not always been a strong participant) became the dominant policy-setting entity both for macro-economic and sectoral purposes.

In response to this situation, USAID/Honduras supported agricultural policy analysis through a series of ad hoc mechanisms. A Presidential Agricultural Task Force prepared a thorough analysis of sector development constraints, which formed the basis for much of the mission's policy dialogue and project initiatives in the early 1980s. The mission also supported the creation of a private Honduran think tank, Ateneo de la Agroindustria (ADAI), which has provided the mission and the Government of Honduras with an excellent in-depth policy analysis capability. The mission also supported a request from the Minister of Natural Resources for funding to create a small policy analysis group attached to the minister's office, which provides continual support to the minister in his role in policy determination for sector institutions. While mission support for such activities has fulfilled the immediate need for policy analysis, the mission has not been able to institutionalize the capability either in the public (MNR) or private (ADAI) sectors.

The Government of Honduras has recently restructured its institutional mechanisms for development planning. A separate Ministry of Planning has been created which will centralize all long-term and annual planning functions as well as budgeting responsibility. Implementation of this law apparently will encounter considerable bureaucratic resistance, however, and other constraints such as salary levels and turnover of personnel are not affected by the restructuring. It is therefore too early to determine whether a basis has been laid for creation of an effective public planning function.

The mission should carefully monitor evolution of the new planning system and be prepared to provide minor support to facilitate its creation, without making a major commitment of resources. In the meantime it is appropriate that the mission continue to provide minor support to the policy analysis unit advising the Minister of Natural Resources, as this unit can support of a wide range of mission initiatives. The private sector ADAI unit is potentially an extremely effective mechanism to obtain high caliber, independent policy analysis for consideration by the Honduran public and private sectors. It would be appropriate to consider providing a local currency

endowment to this entity in order to ensure its viability, if the Honduran public sector can be convinced of the utility of such an entity.

A major bottleneck to better policy analysis in Honduras is the inconsistency of data management systems. At present, different institutions regularly report widely different estimates for such basic concepts as production of staple crops and agricultural exports. In policy analysis activities, priority needs to be given to reconciling these differences and developing an improved data management system for the sector. Similarly, primary sources of data on the sector are outdated and therefore unreliable. The mission should support the upcoming Agricultural Census and a Rural Household Income/Consumption study. An update of the Area Sample Frame is also required.

SECTION V

CONCLUSIONS AND RECOMMENDATIONS

The strategy proposed in section IV will require considerable internal mission discussion about form, content and concept before it emerges in policy dialogue or in PID form. Donors have some control over the timing of project assistance, so we have provided a rough approximation of the scheduling priority we see for this program over the next ten years. Policy dialogue tends to be shaped more by perceptions of opportunity and personalities than by time, unless it is a conditioning feature of a program.

A. Policy Dialogue

Priorities are shaped more by "the art of the possible" than by administrative fiat. The policy concerns discussed above are extremely difficult to resolve, and we are under no illusion that mission efforts will be successful within a certain period of time. For this reason, we assume the need for compromises and tradeoffs among policies and between policies and programs, based on more analysis and discussion than has been possible in the past. For example, if a completely free exchange rate cannot be achieved, then one would attempt to increase the proportion of trade conducted under parallel market rates. In other words, one seeks the underlying structural limitations and corrects them, rather than accepting them.

Neglect of the agricultural sector has certainly led to economic and environmental deterioration and human suffering, and it must be reversed for economic, ecologic, social and political reasons. This reversal will not occur without significant sector growth, which will require--among other things--greater equity in intersectoral terms of trade, more credit, and a more coherent land policy. How can this growth be encouraged with the least impact on economic stabilization targets? This is the most important question raised by this strategy paper, but its answer must be resolved within the mission and in dialogue with the GOH.

B. Recommended Near-Term Program Activities (FY 1988-1989)

- o Land Use Productivity Enhancement (LUPE). This project builds on the experience of two successful ending projects. It will have a strong impact on the welfare of marginal hillside farmers, on resource conservation, on rural employment, and on production of basic grains.

- o Regional Market Town Development. This is not a project per se, but a reorientation of investment the mission is

already making in health, agriculture, education, employment generation, rural roads, etc. We propose that these investments be shifted away from the two metropolitan areas and concentrated on five or six progressive secondary cities of 15,000-30,000 population. For optimum agglomerative impact, the shift in AID investment should be reinforced by a similar shift in GOH and other donor investment. We cannot expect such shifts to be total or immediate, but a steady pressure should be maintained at the margin to encourage resource conservation. A quick study of the principal secondary cities should establish a baseline for encouraging specific types of investment in each.

- Rural Access Roads. The mission should continue support for construction of rural access roads beyond the PACO for the ongoing project (7/89), focusing this effort around key market towns to the extent possible.

- Policy Analysis. We concur with the concept of a single policy analysis project with sectoral components. We are not certain of its state of readiness, but believe that the initiative of the current GOH administration towards greater concentration on planning and budget control may provide a good opportunity for effective assistance. The agricultural sector has an urgent need for improved statistics, as well as for a number of mid-term studies of policies and practices related to intersectoral protection levels, land tenure, land taxation, agricultural credit, and natural resource conservation. The mission presently has the capabililty to provide short- or long-term technical assistance to complement local currency activities or address immediate development constraints (SPATS). Hopefully, this activity will either be maintained or included as a component of this policy analysis project. There are a number of areas where technical assistance could facilitate policy reformulation or implementation, without the need for a distinct project. Examples might include BANADESA consolidation, IHMA/BANASUPPRO/Seed/PROMECA privatization, and land tax implementation.

- Agricultural Education. The mission has identified opportunities to increase the availability of qualified agricultural school graduates by providing local currency support to the Pan American Agricultural School. This effort is strongly endorsed and similar efforts with other institutions, combined with some technical assistance, should be provided if appropriate policies are adopted to assure quality of education.

C. Recommended Mid-Term Program Activities (FY 1990-1993)

- Land Market Policy and Practice. This is a very difficult area that other donors have avoided. However, its importance to all aspects of investment and equity in agricultural production and to the sustained use of renewable resources gives it a high priority.

- Agricultural/Agribusiness Credit. The prospective credit study should raise a number of policy issues and identify a number of institutional constraints as well. We would expect that the policy issues will be suitably resolved over the next two years; however, the conservative attitude of banks towards agricultural lending, their inability to mobilize savings, and archaic procedures that raise transaction costs are institutional constraints that must be overcome at a different level. We believe that there are approaches to encourage these banks to lend to agriculture, just as there are special mechanisms that make small farmer lending attractive.

- Metropolitan Self Financing. We believe that the metropolitan areas (i.e., Tegucigalpa and San Pedro Sula) should become self-financing, i.e., no longer requiring national treasury assistance, within three or four years of initiating regional market town concentration. If they don't, there may be a serious limitation on the capacity of the public sector to provide an adequate level of support to regional towns. These two cities may require significant external advisory assistance in city management to enable them to meet this target.

- Development of an Improved Technology Generation and Transfer System for Basic Grains (corn, rice, beans, soybeans and sorghum. The mission must look forward to the need for a public sector research and extension system geared to Honduras' unique situation. Given the small size of Honduras' fiscal resources, one should consider a variety of options, ranging from combinations with other Honduran institutions (FHIA, EAP), through increasing reliance on and linkages with the international science community, to contracting either the training of essential professional staff or the staff itself. It is not too early to be looking at such innovative arrangements as alternatives to transferral of other institutional systems.

- Export Promotion/Import Substitution. Four of AID'S initial efforts in this field will be up for extension, termination, or redesign/renewal (FHIA, FEPROEXAH, Coffee Improvement, and Fondo Ganadero). We assume that recent

and planned mid-course evaluations will lead to identification and correction of deficiencies, and that subsequent operations indicate the sustainability of these institutions.

The mission may wish to leave them at these levels or expand or modify their scope. For example, the mechanisms used for coffee improvement may apply equally to cacao, citrus, pineapple and other perennial crops. The Fondo Ganadero might become more concentrated on dairy and export beef activities. FEPROEXAH may become more concerned with promoting international or local investment in processing. There may be a need for a new activity in small businesses for regional market towns. We expect FHIA to become increasingly important in developing the technologies that will enable Honduras to become more competitive in both traditional and non-traditional products and to maintain or expand market share.

D. Recommended Long-Term Program Activities (FY 1994-1997)

- o Continued Rollover/Redesign of Agricultural Portfolio. By this time, both Forest Management and Irrigation will be coming to a close. There will be a continuing need for support in these areas, based on the experience of these projects.

- o Market Town Development. This is a new project, unlike the initial reallocation activity. By the beginning of this period, the agglomerative effects of resource concentration on selected market towns should be apparent, with increased consumer demand leading to greater economic activity, including more private investment and more efficient product and factor markets. These changes will be accompanied by "growing pains" and the need for both financial and technical assistance. This should be a phased effort that includes (1) financial support for critical infrastructure investment; (2) development of the capacity of these cities and their surrounding market areas to plan and implement regional development activities; and (3) granting of local authority to tax and manage the development budget.

- o Support for Professional Agricultural Education. The issue of meeting the sector requirement for increasing numbers of agricultural professionals must be addressed before the professional human resource constraint becomes limiting. It appears unlikely that the Honduran public education sector will address, directly and in the near term, the issues of politicization, student prequalification screening, tuition, and scientific

curriculum content, which plague public higher education institutions throughout the hemisphere. In the absence of such reforms, the mission should look at the alternatives of greater reliance on private institutions such as EAP or training grants for study abroad. These choices are not simple. A careful study could help establish the bases for such choices.

DISTRIBUTION OF DA PROJECT FUNDING

EXPORT ORIENTED	POLICY PLANNING	EXTENSION	RESEARCH	INST. DEV.	CREDIT	LAND REFORM	HUMAN RESOURCES	MARKETING	DATA	TOTAL	LOP/ACTUAL BENEFICIARIES	ACTION PLAN CONT TO PROD. OBJ. 87-90	COMMENT
Livestock	0.00	0.55	0.00	3.40	8.95	0.00	0.11	0.00	0.00		LOP = 3,000 Credit = 225 Actual = 136	$ 8.4	0.00
Coffee	0.00	6.34	0.00	0.00	12.80	0.00	1.00	0.00	0.00		LOP = 10,600 Actual 6,700	$ 100M	0.00
FHIA	0.00	4.49	7.10	8.12	0.00	0.00	0.30	0.00	0.00		LOP 5,000	N/A	
Exp. Dev.	1.40	0.00	0.00	0.00	10.20	0.00	0.45	11.15	0.00		N/A	$ 118.00	0.00
Export Sub-Total	1.40	11.38	7.10	11.52	31.95	0.00	1.86	11.15	0.00	76.36 (50%)	LOP = 18,600 Actual = 6,836	226.40	0.00
MIXED: EXPORT/ DOMESTIC													
Sm. Farm Org.	0.00	0.00	0.00	7.15	8.50	0.00	0.35	0.00	0.00		LOP = 6,000 Credit = 2,000 Actual 0	N/A	0.00
Land Titling	0.00	0.00	0.00	0.00	0.00	12.50	0.00	0.00	0.00		LOP = 40,000 Actual= 18,500	N/A	0.00
Sub-Total: Export + Mixed	1.40	11.38	7.10	18.67	40.45	12.50	2.21	11.15	0.00	104.86 (69%)	LOP = 66,600 Actual= 25,336	226.40	0.00
DOMESTIC ORIENTATION													0.00
Irrigation Development	1.85	2.49	0.00	5.20	11.47	0.00	0.60	0.00	0.00		LOP = 3,000 Actual = 0	3.00	0.00
Nat. Res. Management	0.25	9.71	0.00	0.00	0.00	0.00	1.50	0.00	3.54		LOP = 7,000 Actual = 7,600	11.00	0.00
Rural Technology	0.00	6.00	3.00	0.00	0.00	0.00	0.00	0.00	0.00		LOP = 13,000 Actual= 13,000	21.00	0.00
Sub-Total: Domestic	2.10	18.20	3.00	5.20	11.47	0.00	2.10	0.00	3.54	45.61 (30%)	LOP = 23,000 Actual= 20,600	35.00	0.00
	3.50 (2%)	29.58 (19%)	10.10 (6%)	23.87 (15%)	51.92 (34%)	12.50 (8%)	4.31 (2%)	11.15 (7%)	3.54 (2%)	150 M 88.00	LOP = 89,000 Actual= 46,000	$ 261 M	Action Plan includes Forestry: $ 35.0 M ADCP: $ 30.0 M SPATS: $ 33.0 DMP: $ 2.5 --- $100.5

-89

ANNEX A

AN AGRICULTURAL DEVELOPMENT PROGRAM PRIMER

I. ECONOMIC

A. Commodity Selection

o Past and Projected Growth Rates

o Impact

Volume and Market Value
Domestic and Export
Target Group Incidence (subsistence, commercial, entrepreneurial)

o Feasibility

Resource suitability
Technology availability
Market opportunity
Economic and financial attractiveness

B. Production Interventions (acreage x yield = production)

o Resource based (expansion or resource enhancement); farm level change requires significant investment and maintenance on limited area. Unit output costs are constant under expansion, with a tendency to increase as natural fertility is exhausted and yields decline. Enhancement generally increases unit costs, requiring a shift in crop or technology or both.)

= Land (soil depth, fertility, texture; terrain slope and uniformity; crop, fallow, pasture, shrub, forest cover; use classification for sustainability)
= Water (irrigation, drainage)
= Climate (precipitation and temperature values and distribution; catastrophic event frequency, e.g., drought, floods, hail, wind)

o Science based (farm level application requires limited investment but high maintenance. Unit costs are generally reduced because of higher induced productivity (yield per acre).)

= Genetic (increase yield potential, reduce susceptibility; seed, planting stock, breeding

stock)
= Soil Amendment (improve capacity to attain genetic potential; compost, lime, fertilizer)
= Agricultural Chemicals (reduce loss from pests; insecticides, fungicides, nematocides, herbicides)
= On Farm Water Distribution and Management (attainment of genetic potential, limit climatic risk, conserve water)
= Farm Management (attaining sustainable profitability; farming is a business; the eye of the master fattens the cattle)
  - Husbandry (product selection, land preparation, cultural phenology, care)
  - Sustainability (physical, financial)
  - Farming systems (monoculture, multicropping, symbiotic combination of crops and livestock)
  - Integrated pest management

o Leverage (machinery and equipment; credit. May improve extent, intensity, or efficiency, but does not itself improve yields. Works in both directions, so must be applied wisely.)

= Machinery and Equipment (increase human efficiency, farm more land more intensively in a more timely manner)
= Credit (added to savings, credit enables farmer to acquire inputs, hire labor, make investments, survive catastrophe. Real interest rate must be competitive in level, risk, availability, and transaction cost with that of alternative investments in order to avoid diversion. Comparable conditions apply to savings rates.)

o Post Harvest Interventions (at the farm level, post harvest operations reduce losses and preserve quality. They also provide market choices, ranging from decision not to harvest or handle to storage pending a better market opportunity. The farmer may participate in each step of the post harvest marketing chain, or may delegate (through sale) any or all steps, including field harvest. Each step entails additional costs and risks, as well as opportunity. The decision depends very much on individual capacity.

= Field culling and harvest (harvest and move only what is marketable)
= Shed grading, packing and pre-cooling of

perishables (preserve quality and differentiate product for better average price)
= Drying and storage of basic grains (prevent loss or damage, permit holding for more favorable market conditions or consumption).
= Primary processing, e.g., cheese making (value added, storage)
= On-farm sales (avoid transportation costs, market risks)
= Transportation and off-farm sales (share in value added)

o Education (at farm level, facilitates understanding and application of all of above. Maximum incremental returns obtained from primary education but improvements occur at successively higher levels.)

C. Marketing Interventions

Marketing, like production, consists of complex activities conducted by private operators in search of income (profits). The agricultural market system includes the delivery of both products (agricultural commodities) and factors (inputs). A competitive market receives signals (price, volume, quality) from successive levels of buyers and transmits these to successive levels of suppliers. An efficient market moves both signals and goods rapidly, with minimum distortion of signals or goods. Market interventions are designed to improve the efficiency of the market and to remove distortions in its function of moving signals and goods.

o Product Market (pays the farmer for his product and delivers the product from the farm to the consumer)

= Rural Roads (transportation is a significant share of marketing costs, and is highest in rural areas where poor roads cause wear and tear on trucks and damage to product which must be included in freight costs.
= Collection centers (delivery by farmer to a collection center, where buyers can congregate to consolidate shipment from several farmers, generally enables the farmer to obtain a better price (value added) then when delivered to a trucker at the farm gate. Trucker-buyers require a margin which includes freight costs, market risk and transaction profit. This margin is significantly higher at the farm gate, not only because of the trucking and consolidation costs, but because of lack of competition.)
= Market Structure (successive buy-sell steps in the

marketing prccess generally raise costs and reduce efficiency, but multiple channels -- vertically integrated supermarket, wholesale-retail, independent agent, buyer processor, producer-consumer -- facilitate price competition and market clearance.)

= Storage (Seasonality and climatic risk lead to variations in product availabililty and price. Variations in basic grain prices are normally consistent and wide enough to pay storage costs and provide added value. Short term refrigerated storage of perishables is more risky, but may be profitable.

= Pricing Policy (The felt need of govenments to assure farm income, a steady flow of agricultural products, and avoid monopsony pricing leads them to intervene in the market, sometimes by fiat, commonly by buying and selling at the storage and/or consumer levels. There are intense political pressures on the regulatory agent to set prices at favorable levels for particular producer or consumer groups, or to stimulate output of crops whose underlying price structure is inadequate. It is not surprising that few such interventions are effective, and that many are corrupt.

o Input Markets (science-based technology usually requires the timely availability of suitably priced productive inputs, which are normally provided by profit-motivated private firms. Price and availability to the farmer is determined by their profitability to the dealer, which in turn depends on volume, delivery location, payment terms, and margin requirements. Consequently, inputs are more available to large farmers and organized small farmers served by good roads and who can pay cash than by those individual farmers who are less well situated. Interventions seek to overcome these limits.)

= Farmer organization (order consolidation and assumption of distribution costs, with or without credit, provide economies of scale)

= Private rural stores (high cost, but available; suplier credits could expand sales)

= Public rural stores (expand availability, but subsidized costs prevent entry of commercial agents)

= Rural roads (see product market)

II. EQUITY (better distribution of income and opportunity)

A. Employment

o Opportunities in Rural Communities

= Own farm
= Other farms (for non-farmers or farms with excess labor supply. A higher proportion of production credit to small farmers goes to hire additional labor.)
= Processing (on-farm, primary processing, confection; may be a major opportunity for women)
= Services (direct product, input, consumer sales; mechanics and other rural service industry
= Public works (roads, schools, hospitals and other rural construction)

o Interventions

= Public works (rural roads, schools, etc.; unemployed or underemployed receive a wage in cash or kind. Must be seasonal to fit farm phenology.)
= Community development (rural roads, schools, community centers, etc.; government provides TA, capital, etc., and community provides oranization and labor. Partial wage in kind or cash sometimes paid. Must be seasonal to fit farm phenology.
= Type of technology promoted (labor vs. capital intensive; unit output cost comparison important)
= Private investment (depends on type, location, cost of job creation
= Organization (producers associations, cooperatives, local government, community promotion. The better organized, the easier to utilize opportunities; also provide employment and leadership opportunities.)

B. Land Tenure

Land is wealth, hence tantamount to power and opportunity. Like wealth, land is subject to simultaneous opposing tendencies of accretion, as the more successful owners acquire land from those less so, and fragmentation, as land is parcelized for sale or distribution among successive generations. "Governmental action is needed to redistribute wealth or revolutionary action will redistribute poverty."

- o Interventions (with few exceptions, governmental actions to redistribute wealth -- property -- are generally inimical to production because of the uncertainties introduced.)

  - = Agrarian reform (expropriation and redistribution of property is a violent political act which results in divestment and capital flight in anticipation, and in execution leads to disruption of management and delayed investment, with consequent loss of production.
    - May be a necessary last resort
    - Avoid by timely alternative political action

  - = Taxation of Land
    - Encourages productive use or sale of land
    - Lowers farm income and savings, but may encourage investment to avoid sale
    - Most effective (and politically acceptable) when taxes are reinvested in ways which are perceived to help landowners

  - = Land Markets (exist even when illegal, can be facilitated by titling, credit, registry systems)
    - reduce fragmentation by facilitating recovery of patrimony (sweat equity) through sale
    - facilitate consolidation at all size levels unless prohibited
    - encourage migration -- rural-urban and rural-rural -- by providing means to pursue alternatives

C. Participation

Improves design of interventions, promotes consensus, facilitates leadership development and organizational skills, which are precursors of political and market influence.

- o Interventions are focused on providing opportunities for realistic participation and guidance on appropriate behavior.

  - = Promoting the formation of democratic organizations (cooperatives, trade unions, local government)
  - = Undertaking public works through community action

= Maximizing the use of local organizations in project design and implementation

D. Education

The opportunity to acquire a basic education is the most important of all opportunities, since it affects the ability of the individual to take advantage of other opportunities.

- o Interventions are focused on providing facilities and qualified teaching personnel who are accessible to rural children, and assuring linkage to successive levels.
  - = Full course rural primary schools
  - = Qualified rural teachers
  - = Transportation to or residential secondary or technical schools
  - = Continuing educational opportunities

III. SECTOR INSTITUTIONS

A. Private

- o Associative (commodity associations, valley associations, cooperatives, reform associations, etc.; particularly valuable in achieving economies of scale in factor and product marketing.)

- o Service (PVOs, CDOs, etc.; service (not profit) oriented; particularly valuable in outreach to least favored segment of rural population.)

- o Commercial (seedsmen, agricultural machinery, input supply, processors, bankers, etc.; profit motivation provides a stimulus for competitive expansion, and a check on viability.)

B. Public

- o Service (research, extension, education, banks, etc.)

- o Normative (pricing, policy analysis, animal/plant health, quality laboratories, etc.)

- o Local government

ANNEX B

THE MARKETS FOR FOREIGN EXCHANGE IN HONDURAS

In light of the importance of trade and exchange rate policies for agriculture, this annex summarizes the existing dispositions in the area of markets for foreign exchange.

1) In general, subject to the exceptions noted below, persons and firms wishing to import must apply to the Central Bank for foreign exchange, which they purchase at the official rate. Likewise, subject to certain exceptions noted, exporters are legally required to sell their foreign exchange to the Central bank at the official rate.

2) There is a scarcity of foreign exchange at the official rate, and so the Central Bank has established a rationing system for providing foreign exchange to importers. There are two levels of priority for goods to be imported. For those goods in the first priority, foreign exchange is issued quickly at the official rate. For those in the last priority the importers often have to wait many months to obtain their foreign exchange. Basic foods fall in the first priority. In addition, there is a special priority for essential inputs (la ventanilla única), and for those goods dollars are issued immediately and with a minimum of paperwork.

3) Imports from other countries in Central America can be made only with foreign exchange earned via exports to Central America. Thus an exporter dealing with the rest of the region may import from those countries, or he may choose to sell his foreign exchange to someone wishing to effect such Central American imports. In the latter case, the foreign exchange transaction is a private one, as it usually is pegged to the black market (or free market) exchange rate. The importer simply requests the permit to import, and the Central Bank doesn't ask where he got the foreign exchange.

4) Banana companies may use their own foreign exchange earnings to import inputs, and the excess of foreign exchange earnings must be sold to the Central Bank at the official rate. Thus if $1 million worth of bananas are exported and $500,000 of inputs are imported, the banana company must present to the Central Bank documentation on the imports and sell the remaining $500,000 to the Central Bank.

5) For meat exports, there have been temporary dispositions, in periods of low external meat prices, that allow the exporter to "retain" 20 percent of the foreign exchange earnings. That 20 percent may be used by the exporter, for

imports, or sold to another importer. It appears that this particular disposition is not in effect now.

6) Persons who hold dollars abroad (or effectively have acquired them on the black market) may use them to import goods in any priority.

7) Under an AID program, exporters of non-traditional products also may retain up to 20 percent of their dollar earnings, but this disposition has not yet been utilized. it is applicable only to those non-traditional exports financed by the $10 million AID program.

8) The net effect of these various provisions is to amplify the extra-official black market for foreign exchange, to feed more dollars into it. Thus another effect is to increase the volume of transactions at the higher black market exchange rate, but to date that volume still is relatively small. It should be emphasized that the black market still is illegal, but the Central Bank simply looks the other way.

9) It is difficult to see how this system could be applied for the purpose of raising the exchange rate that is applicable to agricultural imports. Such imports can be carried out now by persons who have obtained their dollars on the black market, but there is no incentive to do so, for dollars for these imports are readily obtainable at the lower, official exchange rates. And obviously it would <u>not</u> be recommendable to pass agricultural imports to a less urgent priority, for that would create delays and uncertainty about food imports, which clearly would be undesirable. Thus, in practice only a tariff or a devaluation can raise the lempira price of agricultural imports.

ANNEX C

SUMMARY NOTES OF NATIONAL DEVELOPMENT PLAN: 1987-1990

A. Planning Objectives

1. National Development Plan (1987-1990)

(vol I, p. 18)

- o Sustained economic growth
- o Internal and external financial equilibrium
- o Employment generation
- o Integrated regional development
- o Satisfaction of vital needs

(vol II, p. 3)

- o Employment generation
- o Growth of productive capacity
- o Satisfaction of basic needs
- o Export growth

Observation: These two lists probably reflect serial formulations. Two in the second list are essentially identical with the first list; two others reflect methods for achieving goals specified in the other list. The missing elements in the second list are financial equilibrium and regional integration.

B. National Development Plan Approach

1. Model (p. 18-19)

- o A growth rate of 4.2%, primarily through
- o Recovery of private investment, and
- o Export growth, seeking
- o Progressive incorporation of labor force, and giving
- o Priority to the agricultural sector to produce for consumption and prime materials

2. Mechanisms (p. 19-21)

- o Continued support for traditional exports and improved
- o Utilization of installed capacity, through
- o Credit for working capital, and
- o Privatization of paralized state-owned enterprises.
- o Restructure interest rates to encourage private savings.
- o Reduce public sector deficit through restricting costs, improving tax collection and operating efficiency, and avoiding assumption by the state of

the results of poor management by the private sector. The latter must assume the risks.

- o Revision of customs duties and operations to facilitate exports and rationalize the process of import substitution and export stimulation.
- o Public investment program prioritize fundamentally on the basis of employment generation.
- o Private investment is to be stimulated by elimination of policy, legal and regulatory impediments, and through active stimulation to improve technical and material capacity, and development of private capital markets.
- o Stimulate any initiative for creation of productive employment through adequate credit regulation and,
- o over a longer term, create the institutional framework for national science and technology.
- o Stimulate regional integration through special priorization of public sector investments, strengthening the capacity of local government to participate in a territorial planning system.
- o Satisfaction of vital needs appears to be directed primarily at education, and involves greater efficiency of the public sector and involvement of the community in new methods of social development.

C. Plan Doctrine (pp. 21-25)

- o The Private Sector (workers, campesinos and impresarios) will be the principal actors, sustained by two fundamental principles:
  - = Respect of individual and property rights
  - = Free exercise of private activity

- o The Modern State will become rational and efficient as the result of administrative reform oriented to:
  - = Efficiency and effectiveness of central government and decentralized agencies
  - = Strengthened autonomy and administrative and financial capacity of local government.

- o Popular, democratic participation seeks to integrate all sectors of the population in the formulation and strengthening of social and economic policies, seeking a consensus and work resulting in a national cultural identity and patriotic conviction.

- o Sovereignty and Independence. Authentic sovereignty is the result of securities (food, family, energy, technical, financial) offered by the state. Internationally this consists of recognition of a high degree of interdependency among nations and

adherence to these principles:

- = Respect for the principle of free determination
- = Maintenance of peaceful cooperative relations with all countries.
- = Compliance with international agreements in a just and equitable framework.

o Exegenous factors pragmatically recognized in application of the doctrine:

- = The erratic nature of the international economy and structural changes in the demand for exports, caused both by protectionism and by uncoupling of industry's traditional need of prime materials.
- = The external debt burden is a continuing limiting factor on national development
- = The requirement for soft loan terms
- = The negative impact on foreign investment of the Central American area's sociopolitical situation.

ANNEX D

ANALYSIS OF CURRENT PORTFOLIO

The purposes of this section are to (a) describe the functional distribution of our investment portfolio and (b) attempt to describe the significance of this distribution in the context of production objectives and population reached.

Table I displays nine functional investment categories: policy and planning, data collection, extension, research, institutional development, credit, land reform, human resource development and marketing. In general, these categories are straightforward and represent the basic alternative elements in any agricultural program. I have restricted the definition of human resource development, however, to include only external training, viewing the capitalization of an agricultural scientific and management elite as a key element in any sector strategy. Thus farmer training is viewed as extension, and local training for implementing agency personnel as institutional development.

Project papers, semi-annual reports, and project evaluation were reviewed to allocate funding levels across the categories. There is some degree of subjectivity in this allocation process:

The Rural Technology Project documents provided no easily discernable breakdown between research and extension. I, somewhat arbitrarily, allocated two-thirds to extension and one-third to research, based on economic studies of agricultural research and extension projects that tend to show such a breakdown. Extension involves more people, more vehicles, more travel, etc.

The same allocation could be applied to the Natural Resource Management Project. However, the soil conservation techniques applied seemed fairly well known, and while the evaluation described some trial and error efforts to adapt the practices to local conditions, these seemed more in line with extension practices than research.

The Export Development and Service Project was not broken down between FIDE and FEPROEXAAH, but treated as a single project. There is a question whether the non-credit funding should be allocated between institutional support and marketing. However, the bulk of the assistance provided appears fairly directly related to marketing services: commodity information, market information, etc. However, marketing may be overstated and institutional support understated.

Finally, it should be noted that the overview is based on documents that may not reflect accurately the current state of a project. Thus the magnitudes and their classifications may be inappropriate; there may be better classifications and distributions as this exercise is refined in July. Further, there are data gaps (e.g. how many farmers has FEPROEXAAH reached?) that will change the numbers. Given these caveats, there are, I think some general tendencies of interest.

The authorized investment portfolio totals $150.0 M. Accrued expenditures as of April 1, 1987 total approximately $56.0 M., leaving an authorized less accruals pipeline of $94.0 M.

The breakdown by investment category shows:

1. Sixty-eight percent (68%) of the portfolio is concentrated in three categories: credit (34%), extension (19%, and institutional support (15%).

2. Twenty-seven percent (27%) of the portfolio is dedicated to the research, extension, education system: extension (19%), research (6%), and human resource development (2%).

3. Policy, planning, and data collection activities total four percent (4%).

4. Land reform and marketing total sixteen percent (16%), evenly split.

Implicit in these relative funding levels is a ranking of sector constraints: Implicit order:

1. Lack of access to investment credit.

2. Lack of knowledge of improved technologies.

3. Institutional weaknesses.

4. Lack of information on export marketing and alternatives.

5. Lack of secure title.

6. Lack of productivity increasing technologies.

7. Lack of data.

8. Inadequate policies.

9. Lack of highly trained scientists and managers.

Clearly, of course, things are not so simple. Some activities can be effective at low cost or by other means. It may be relatively cheap to effect policy changes or, given ESF and PL-480, policy leverage may be conducted outside of projects. Similarly the $3.31 M for human resources could provide some 55 M.S. degrees. That may be reasonable number of other non-project training funds may significantly increase the pool of professionals. Despite these considerations, cross-crountry comparisons indicate strongly that investment in research and human resources are key to sustainable growth and that, given their rates of return, under investment is common.

DRAFT

Given the rather broad definition of the functional categories, it maby be useful to consider the nature of the investment in each.

Policy planning - ($3.5 M; 2%)

The efforts are directed specifically towards irrigation and water policy and export promotion policies. The irrigation project is just beginning and three years into EDS an audit has requested a time phased plan to implement the policy component. In the restricted context of project support, therefore, the policy focus is narrow and, yet, largely unimplemented.

Extension - ($29.58 M; 19%)

Funding is distributed between export commodities (38%) and domestic food crops (62%). The emphasis in the former is coffee and non-traditionals, while in the latter on soil conservation and on-farm water management.

Research - ($10.1 M; 6%)

Seventy percent of the research funds are directed to the private sector for non-traditional export commodities. While data on producers of non-traditionals is sparse, this sector may involve some 4,000 - 6,000 producers on some 10,000 ha. The remainder of the research funding is in the public sector for appropriate technologies for basic grain producers: soil conservation, micro irrigation, grain silos, small farm implements.

Institutional Development - ($23.87; 15%)

Seventy-eight percent is directed to the private sector for work in livestock, non-traditional exports, and cooperative strengthening. The remainder (22%) supports the public sector in

irrigation development.

Credit - ($51.92; 34%)

Credit is the largest single category. Sixty-one percent of the credit funds are oriented to export commodities, twenty-two percent to the construction and development of irrigation systems on 6,000 - 7,000 ha, and seventeen percent to production credit for some 2,000 cooperative members.

Land Reform - ($12.5; 8%)

The LOP objective is to provide 40,000 fee simple titles. To date, approximately 21,000 titles have been granted to some 18,500 farm owners. While over 1,000,000 ha. have been delineated, approximately 110,000 ha. have been titled. The project tends to concentrate in the coffee producing zones.

Human Resource Development - ($4.31 M; 2%)

Sixty-seven percent of the funding is directed to training in land and water resource management for public sector professionals. Twenty-five percent is directed to the private sector for export development. The remaining eight percent supports cooperative development.

Marketing - ($11.15 M; 7%)

The entire marketing activity is for export promotion. Of this, eighty-eight percent is in the private sector.

Data Collection - ($3.54 M; 2%)

Principal orientation is resource and cadastral information for watershed planning in a specific watershed.

In general, the export oriented portfolio appears well developed in terms of coverage (livestock, coffee, non-traditionals) and breadth (extension, research, institutional development and marketing). It is also supported by cooperative organizations and titling. The Projects also lend themselves to the execution of mutually supportive initiatives.

The domestic food crop portfolio has one basic orientation: land and water resources. Commodity research and marketing are notable absences.

CONTRIBUTION TO PRODUCTION OBJECTIVE

The original production objective of increasing the value of agricultural production by $400 M by 1990 was later scaled down

in the final Action Plan to $360.0 M. The nine on-going projects are expected to contribute $261 M to the objective. Four projects yet to be initiated were expected to contribute an additional $100.0 M: forestry, domestic marketing, strategic planning and technical support, and small business development. Of the $261.0 M contribution from on-going projects, the coffee project and the export development project are expected to contribute $218.0 M, representing eighty-three percent of the total expected form on-going projects.

While the coffee project, a long established and well functioning project, seems well able to achieve its goal, the Export Development and Services Project may have difficulties (cf. semi-annual report, audit). If so, the contribution from on-going projects is likely to fall short of the anticipated $261.0 M.

While an additional $100.0 M was anticipated from new projects, the current state of development of those projects coupled with normal implementation schedules; suggests that production benefits of $100.0 M between now and 1990 are unlikely to be achieved.

BENEFICIARY IMPACT

The rural population is estimated at approximately 2,583,000 persons, approximately 431,000 families. The total number of farms is estimated to be around 200,000.

Based on LOP ojectives, the nine on-going projects may reach, in one form or another, some 89,000 farm families. Of this, some 40,000 (44%) is attributed to the titling project. Those reached through credit, extension, technical assistance, therefore may total 49,000. This represents approximately twenty-four percent of the farm families.

To date, project activities reach some 46,000 families, twenty-three percent of the total. Again the titling project accounts for the largest proportion; 18,500 families (40 percent of those reached). Currently, approximately 27,500 are reached with productive services, representing some thirteen percent of the farm families.

The $76 M for development of the export sector reaches approximately 7,000 producers, representing three percent of the farmers.

The combined $105.0 M for development of export commodities and mixed production reaches 25,000 producers. This includes 18,500 farmers under the titling project.

The $46.0 M for domestic food crops reaches some 21,000 producers representing ten percent of the farmers.

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ANNEX F

REVIEW OF MISSION ACTION PLAN TARGETS

The attached tables are revisions of back up data used by USAID/Honduras in preparing its FY 88 Action Plan. The agricultural sector was considered to contribute most directly to three Action Plan objectives: Agricultural Production, Employment, and Export Earnings. Projections of the impact of each existing or planned Mission project were made by each project officer, and the Mission target for each objective was based on the direct impact each project would have. The one exception to this practice was in the case of the Export Promotion and Service Project, where targets were projected based both on direct project impact and indirect impact of CBI incentives.

There targets were revised by meeting with each project officer and taking into account recent events, such as declining coffee prices and major investment in shrimp production. The shrimp activity has a major positive impact on the projections, and it appears that Mission efforts did lead to initiation of private sector interest in this new industry, even though direct support from the Mission for this activity remains minor.

Footnotes on each table note the comparison of the revised projections with original ones, as well as noting methodological concerns. The objectives are defined in probably the most easily measured terms, although they are not necessarily the most appropriate. Net value added would be a better measure than total production. Net export earnings would be preferable to total exports. Rural income increase would be preferable to total employment impact.

Statement of objectives in terms of direct impact of Mission projects also does not reflect indirect impact of policy reforms nor provide a measure of the impact of the total Mission program on macro trends in the agricultural sector. The Mission could reflect positive impact of its projects while the rest of the agricultural sector could be suffering a sharp decline.